YAPICHEM

ARSTEP

ARSTEP EXTRA

DEGASET

ARSET

CONCRETE ADMIXTURES
PRODUCT GROUPS BROCHURE

Yapıchem Kimya Sanayi A.Ş. was founded in 2011 by a team of professionals with vast experiences in the construction chemicals business. Today, with production facilities throughout Turkey, and an extensive partner network around the globe, **Yapıchem** is internationally recognized as an expert in providing high quality specialty chemicals to Concrete, Cement and Construction Industries.

By our state-of-the-art laboratories and R&D facilities, we are able to cater to our customers' specific needs by producing tailor-made, high performance products for each customer and project. Our technology and innovation-based approach combined with our customer-centric culture enables us to dedicate ourselves to continuous, solution-oriented and exceptional customer experience.

At **Yapıchem**, we are passionate about innovation, customer satisfaction and building lasting relationships with utmost care and respect to the community, employees, suppliers and environment.

Production

Our 300.000 MT annual production capacity of İstanbul, İzmir and Gaziantep factories strategically positioned near transportation hubs and wide logistical network enables us to provide fast product delivery across the globe.

Technology

Our expert engineering team develop innovative, high performance, and high-quality products tailor-made to customers' specific needs at our state-of-the-art R.&D, Concrete and Cement laboratories.

Concrete Lab | Cement Lab | R&D Lab

- Products Tailor Made to Customer Needs
- Investment in Continuous R&D
- Extensive Concrete and Cement Trial Experience & Data
- The Advantage of Semi-Product Formulation Know-How

Responsibility: The information provided in this document corresponds to our scientific knowledge on the subject at the date of its publication and are non-binding. The user determines suitability of product for intended use, assumes all risks and responsibilities that results from misuse or unsuitable application of the product. This information may be subject to revision as new knowledge and experience becomes available. Before the use and application of **Yapıchem** products featured in this document, please refer to the instructions and warnings on the product's most current Technical Data Sheet and Safety Data Sheet. This catalog will stay in effect until a newer version is published. The information in this document cannot be reproduced and used without **Yapıchem Kimya A.Ş.**'s permission.

YAPICHEM

CONCRETE ADDITIVES

- Plasticizer Concrete Admixtures

- Midrange Plasticizer Concrete Admixtures
- Superplasticizer Concrete Admixtures

- New Generation Superplasticizer High Performance Concrete Admixtures

- Set Accelerating Admixtures
- Set Retarder Admixtures
- Air-entraining Admixtures
- Antifreeze Concrete Admixtures
- Re-dosing Admixtures
- Zero Slump Concrete Admixtures
- Early Strength Increasing Additives
- Surface Retarding Admixtures
- Waterproofing Admixtures
- Curing Compounds
- Shotcrete Admixtures
- Alkali-Slica Reaction Controlling Admixtures
- Corrosion Inhibiting Admixtures
- Pumping Aids
- Underwater Concrete Admixtures
- Concrete Remover Chemicals
- Mould Releasing Agents

ARSTEP

ARSTEP Series *admixtures are water reducing plasticizers increasing the strength of concrete by reducing water / cement ratio used in ready mixed concrete production. There are slump retaining and set-retarding summer versions and set-accelerating winter versions.*

- Plasticizer Concrete Admixtures

	PRODUCTS	ARSTEP 10 SERIES	ARSTEP 20 SERIES	ARSTEP 30 SERIES	ARSTEP 40 SERIES	ARSTEP 50 SERIES
USAGE AREAS	Ready-mixed Concrete Production	■	■	■	■	■
	Precast Concrete Production					
	Self Leveling Concrete Production					
	Shotcrete Production					
	Zero-slump Concrete Production					
	Aggregate Looking Concrete (Wash Concrete) Production					
	Pouring Concrete in Hot Weather	■	■	■	■	■
	Pouring Concrete in Cold Weather	■	■	■	■	■
PURPOSE OF USAGE	Slump Retarding	■	■	■	■	■
	Set Acceleration[1]	■	■	■	■	■
	Set Retarder[2]	■	■	■	■	■
	Early High Strength	■	■	■	■	■
	Final High Strength	■	■	■	■	■
	Waterproofing					
	Increasing The Hydration Temperature of Concrete and Preventing Freezing					
	Air-entraining					
	Set Retarder in Concrete Surface					
	Re-dosing The Consistency of Concrete					
	Accelerate Hardening					
	Alkali-Silica Reaction (ASR)					
	Corrosion Inhibitor					
	Pumping Aid					

1- Winter versions (W)
2- Summer versions (S)

ARSTEP

ARSTEP 10 Series

Water Reducing / Plasticizer Concrete Admixtures

Product Description

ARSTEP 10 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep 10	EN 934-2 Table 2 ASTM C 494 Type A
Arstep 10 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep 10 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP 10 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep 10 S
- **In Winter:** Arstep 10 W
- **At Normal Temperature:** Arstep 10

Consumption Dosage

ARSTEP 10 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP 10 SERIES** products should be added into the rest of water and should be mixed properly.
Warning: Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

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Compatibility with Other Admixtures

ARSTEP 10 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP 10 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP 10 / 10 S / 10 W
- ARSTEP 12 / 12 S / 12 W
- ARSTEP 15 / 15 S / 15 W

ARSTEP

ARSTEP 20 Series

Water Reducing / Plasticizer Concrete Admixtures

Product Description

ARSTEP 20 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form.
ARSTEP 20 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	< 0,1 (EN 480-10)
Alkaline Content (%)	< 10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep 20	EN 934-2 Table 2 ASTM C 494 Type A
Arstep 20 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep 20 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP 20 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep 20 S
- **In Winter:** Arstep 20 W
- **At Normal Temperature:** Arstep 20

Consumption Dosage

ARSTEP 20 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture.
After adding 70% of mixing water into the dry mixture, **ARSTEP 20 SERIES** products should be added into the rest of water and should be mixed properly.
Warning: Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Compatibility with Other Admixtures

ARSTEP 20 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP 20 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP 20 / 20 S / 20 W
- ARSTEP 25 / 25 S / 25 W

ARSTEP

ARSTEP 30 Series

Water Reducing / Plasticizer Concrete Admixtures

Product Description

ARSTEP 30 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP 30 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	< 0,1 (EN 480-10)
Alkaline Content (%)	< 10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep 30	EN 934-2 Table 2 ASTM C 494 Type D
Arstep 30 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep 30 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP 30 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep 30 S
- **In Winter:** Arstep 30 W
- **At Normal Temperature:** Arstep 30

Consumption Dosage

ARSTEP 30 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP 30 SERIES** products should be added into the rest of water and should be mixed properly.

Warning: Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Compatibility with Other Admixtures

ARSTEP 30 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP 30 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP 30 / 30 S / 30 W
- ARSTEP 32 / 32 S / 32 W / 32 CONS

ARSTEP

ARSTEP 40 Series

Water Reducing / Plasticizer Concrete Admixtures

Product Description

ARSTEP 40 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP 40 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	< 0,1 (EN 480-10)
Alkaline Content (%)	< 10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep 40	EN 934-2 Table 2 ASTM C 494 Type A
Arstep 40 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep 40 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP 40 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep 40 S
- **In Winter:** Arstep 40 W
- **At Normal Temperature:** Arstep 40

Consumption Dosage

ARSTEP 40 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP 40 SERIES** products should be added into the rest of water and should be mixed properly.

Warning: Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Compatibility with Other Admixtures

ARSTEP 40 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP 40 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP 40 / 40 S / 40 W
- ARSTEP 45 / 45 S / 45 W

ARSTEP

ARSTEP 50 Series

Water Reducing / Plasticizer Concrete Admixtures

Product Description

ARSTEP 50 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP 50 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	< 0,1 (EN 480-10)
Alkaline Content (%)	< 10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep 50	EN 934-2 Table 2 ASTM C 494 Type A
Arstep 50 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep 50 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP 50 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep 50 S
- **In Winter:** Arstep 50 W
- **At Normal Temperature:** Arstep 50

Consumption Dosage

ARSTEP 50 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, ARSTEP 50 SERIES products should be added into the rest of water and should be mixed properly.

Warning: Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Compatibility with Other Admixtures

ARSTEP 50 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP 50 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP 50 / 50 S / 50 W
- ARSTEP 55 / 55 S / 55 W

ARSTEP EXTRA

ARSTEP EXTRA Series admixtures are high range water reducing / midrange and superplasticizers increasing the strength of concrete by reducing water / cement ratio highly used in ready mixed concrete and precast concrete production and large scale construction projects. There are slump retaining and set-retarding summer versions and set-accelerating winter versions that allow early formwork removal.

- Midrange Plasticizer Concrete Admixtures
- Superplasticizer Concrete Admixtures

		PRODUCTS	ARSTEP EXTRA 100 SERIES	ARSTEP EXTRA 200 SERIES	ARSTEP EXTRA 300 SERIES	ARSTEP EXTRA 400 SERIES	ARSTEP EXTRA 500 SERIES	ARSTEP EXTRA 600 SERIES	ARSTEP EXTRA 700 SERIES	ARSTEP EXTRA 800 SERIES	ARSTEP EXTRA 900 SERIES	ARSTEP EXTRA 1000 SERIES
USAGE AREAS	Ready-mixed Concrete Production		■	■	■	■	■	■	■	■	■	■
	Precast Concrete Production										■	■
	Self Leveling Concrete Production											
	Shotcrete Production										■	■
	Zero-slump Concrete Production											
	Aggregate Looking Concrete (Wash Concrete) Production											
	Pouring Concrete in Hot Weather		■	■	■	■	■	■	■	■	■	■
	Pouring Concrete in Cold Weather		■	■	■	■	■	■	■	■	■	■
PURPOSE OF USAGE	Slump Retarding		■	■	■	■	■	■	■	■	■	■
	Set Acceleration[1]		■	■	■	■	■	■	■	■	■	■
	Set Retarder[2]		■	■	■	■	■	■	■	■	■	■
	Early High Strength		■	■	■	■	■	■	■	■	■	■
	Final High Strength		■	■	■	■	■	■	■	■	■	■
	Waterproofing						■	■	■	■	■	■
	Increasing The Hydration Temperature of Concrete and Preventing Freezing											
	Air-entraining											
	Set Retarder in Concrete Surface											
	Re-dosing the Consistency of Concrete											
	Accelerate Hardening											
	Alkali-Silica Reaction (ASR)											
	Corrosion Inhibitor											
	Pumping Aid											

1- Winter versions (W)
2- Summer versions (S)

ARSTEP EXTRA

ARSTEP EXTRA 100 Series

Water Reducing / Midrange Plasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 100 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing / midrange plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 100	EN 934-2 Table 2 ASTM C 494 Type A
Arstep Extra 100 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep Extra 100 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 100 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 100 S • **In Winter:** Arstep Extra 100 W • **At Normal Temperature:** Arstep Extra 100

Consumption Dosage

ARSTEP EXTRA 100 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 100 SERIES** products should be added into the rest of water and should be mixed properly.

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Compatibility with Other Admixtures

ARSTEP EXTRA 100 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 100 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 100 / 100 S / 100 W
- ARSTEP EXTRA 120 / 120 S / 120 W
- ARSTEP EXTRA 122 / 122 S / 122 W
- ARSTEP EXTRA 130 / 130 S / 130 W
- ARSTEP EXTRA 135 / 135 S / 135 W
- ARSTEP EXTRA 140 / 140 S / 140 W
- ARSTEP EXTRA 143 / 143 S / 143 W
- ARSTEP EXTRA 148 / 148 S / 148 W
- ARSTEP EXTRA 150 / 150 S / 150 W
- ARSTEP EXTRA 159 / 159 S / 159 W
- ARSTEP EXTRA 167 W
- ARSTEP EXTRA 177 / 177 S / 177 W
- ARSTEP EXTRA 180 S
- ARSTEP EXTRA 188 / 188 S / 188 W
- ARSTEP EXTRA 189 / 189 S / 189 W

ARSTEP EXTRA

ARSTEP EXTRA 200 Series

Water Reducing / Midrange Plasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 200 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio. Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 200 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 200	EN 934-2 Table 2 ASTM C 494 Type A
Arstep Extra 200 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep Extra 200 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 200 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 200 S • **In Winter:** Arstep Extra 200 W • **At Normal Temperature:** Arstep Extra 200

Consumption Dosage

ARSTEP EXTRA 200 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 200 SERIES** products should be added into the rest of water and should be mixed properly.

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Compatibility with Other Admixtures

ARSTEP EXTRA 200 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 200 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 200 / 200 S / 200 W
- ARSTEP EXTRA 202 / 202 S / 202 W
- ARSTEP EXTRA 205 / 205 S / 205 W
- ARSTEP EXTRA 210 / 210 S / 210 W
- ARSTEP EXTRA 212 / 212 S / 212 W
- ARSTEP EXTRA 215 / 215 S / 215 W
- ARSTEP EXTRA 216 / 216 S / 216 W
- ARSTEP EXTRA 223 / 223 S / 223 W
- ARSTEP EXTRA 225 S
- ARSTEP EXTRA 228 / 228 S / 228 W
- ARSTEP EXTRA 229 / 229 S / 229 W
- ARSTEP EXTRA 232 / 232 S / 232 W
- ARSTEP EXTRA 244 / 244 S / 244 W
- ARSTEP EXTRA 245 S
- ARSTEP EXTRA 250 / 250 S / 250 W
- ARSTEP EXTRA 253 S
- ARSTEP EXTRA 254 / 254 S / 254 W
- ARSTEP EXTRA 260 / 260 S / 260 W
- ARSTEP EXTRA 261 / 261 S / 261 W
- ARSTEP EXTRA 267 / 267 S / 267 W
- ARSTEP EXTRA 280 / 280 S / 280 W
- ARSTEP EXTRA 285 / 285 S / 285 W

ARSTEP EXTRA

ARSTEP EXTRA 300 Series

Water Reducing / Midrange Plasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 300 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio. Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 300 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 300	EN 934-2 Table 2 ASTM C 494 Type A
Arstep Extra 300 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep Extra 300 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 300 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 300 S • **In Winter:** Arstep Extra 300 W • **At Normal Temperature:** Arstep Extra 300

Consumption Dosage

ARSTEP EXTRA 300 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 300 SERIES** products should be added into the rest of water and should be mixed properly.

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Compatibility with Other Admixtures

ARSTEP EXTRA 300 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 300 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 300 / 300 S / 300 W
- ARSTEP EXTRA 306 / 306 S / 306 W
- ARSTEP EXTRA 310 / 310 S / 310 W
- ARSTEP EXTRA 315 / 315 S / 315 W
- ARSTEP EXTRA 325 S
- ARSTEP EXTRA 326 / 326 S / 326 W
- ARSTEP EXTRA 328 / 328 S / 328 W
- ARSTEP EXTRA 330 S
- ARSTEP EXTRA 335 S
- ARSTEP EXTRA 350 S
- ARSTEP EXTRA 355 / 355 S / 355 W / 355 CONS
- ARSTEP EXTRA 356 / 356 S / 356 W
- ARSTEP EXTRA 357 / 357 S / 357 W
- ARSTEP EXTRA 358 / 358 S / 358 W
- ARSTEP EXTRA 359 / 359 S / 359 W
- ARSTEP EXTRA 360 S
- ARSTEP EXTRA 365 W
- ARSTEP EXTRA 366 / 366 S / 366 W
- ARSTEP EXTRA 375 / 375 S / 375 W
- ARSTEP EXTRA 377 / 377 S / 377 W
- ARSTEP EXTRA 378 / 378 S / 378 W
- ARSTEP EXTRA 385 S
- ARSTEP EXTRA 386 / 386 S / 386 W
- ARSTEP EXTRA 390 (ARSTEP EXTRA 1970)
- ARSTEP EXTRA 390 S / 390 W
- ARSTEP EXTRA 391 (ARSTEP EXTRA 2010)
- ARSTEP EXTRA 391 S / 391 W
- ARSTEP EXTRA 392 (ARSTEP EXTRA 1931)
- ARSTEP EXTRA 392 S (ARSTEP EXTRA 1931 S)
- ARSTEP EXTRA 392 W (ARSTEP EXTRA 1931 W)
- ARSTEP EXTRA 392 SX (ARSTEP EXTRA 1931 SX)
- ARSTEP EXTRA 393 (ARSTEP EXTRA 2456)
- ARSTEP EXTRA 393 S / 393 W
- ARSTEP EXTRA 394 / 394 S
- ARSTEP EXTRA 394 W (ARSTEP EXTRA 1967 W)
- ARSTEP EXTRA 395 / 395 S
- ARSTEP EXTRA 395 W (ARSTEP EXTRA 2410 W)
- ARSTEP EXTRA 396 / 396 S
- ARSTEP EXTRA 396 W (ARSTEP EXTRA 2533 W)

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 400 Series

Water Reducing / Midrange Plasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 400 SERIES products are naphthalene sulfonate / lignosulfonate based water reducing /midrange plasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

ARSTEP EXTRA 400 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 400	EN 934-2 Table 2 ASTM C 494 Type A
Arstep Extra 400 S	EN 934-2 Table 10 ASTM C 494 Type D
Arstep Extra 400 W	EN 934-2 Table 2 ASTM C 494 Type E

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 400 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

- **In Summer:** Arstep Extra 400 S
- **In Winter:** Arstep Extra 400 W
- **At Normal Temperature:** Arstep Extra 400

Consumption Dosage

ARSTEP EXTRA 400 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 400 SERIES** products should be added into the rest of water and should be mixed properly.

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Compatibility with Other Admixtures

ARSTEP EXTRA 400 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 400 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 400 / 400 S / 400 W
- ARSTEP EXTRA 404 / 404 S / 404 W
- ARSTEP EXTRA 410 / 410 S / 410 W
- ARSTEP EXTRA 411 / 411 S / 411 W
- ARSTEP EXTRA 412 / 412 S / 412 W
- ARSTEP EXTRA 413 / 413 S / 413 W
- ARSTEP EXTRA 414 / 414 S / 414 W
- ARSTEP EXTRA 415 / 415 S / 415 W
- ARSTEP EXTRA 416 S
- ARSTEP EXTRA 420 / 420 S / 420 W
- ARSTEP EXTRA 420 / 420 S / 420 W
- ARSTEP EXTRA 425 S
- ARSTEP EXTRA 437 / 437 S / 437 W
- ARSTEP EXTRA 439 / 439 S / 439 W
- ARSTEP EXTRA 439 / 439 S / 439 W
- ARSTEP EXTRA 440 / 440 S / 440 W
- ARSTEP EXTRA 443 / 443 S
- ARSTEP EXTRA 444 S
- ARSTEP EXTRA 445 / 445 S / 445 W
- ARSTEP EXTRA 446 (ARSTEP EXTRA 446 LMS)
- ARSTEP EXTRA 447 (ARSTEP EXTRA 445-1 W)
- ARSTEP EXTRA 448 (ARSTEP EXTRA 445-2)
- ARSTEP EXTRA 449 (ARSTEP EXTRA 443 -3)
- ARSTEP EXTRA 453 / 453 S / 453 W
- ARSTEP EXTRA 455 W
- ARSTEP EXTRA 456 / 456 S / 456 W
- ARSTEP EXTRA 458 W
- ARSTEP EXTRA 460 S
- ARSTEP EXTRA 470 / 470 S
- ARSTEP EXTRA 472 S
- ARSTEP EXTRA 480 / 480 S / 480 W / 480 WX
- ARSTEP EXTRA 481 (ARSTEP EXTRA 480 B)
- ARSTEP EXTRA 482 (ARSTEP EXTRA 480 G)
- ARSTEP EXTRA 483 (ARSTEP EXTRA 480-5)
- ARSTEP EXTRA 484 / 484 S / 484 W
- ARSTEP EXTRA 485 / 485 S
- ARSTEP EXTRA 486 (ARSTEP EXTRA 480-6)
- ARSTEP EXTRA 487 (ARSTEP EXTRA 480 BS-1)
- ARSTEP EXTRA 488 (ARSTEP EXTRA 481-3)
- ARSTEP EXTRA 489 (ARSTEP EXTRA 481-3 S)
- ARSTEP EXTRA 490 / 490 S / 490 W
- ARSTEP EXTRA 491 (ARSTEP EXTRA 1871)
- ARSTEP EXTRA 491 S (ARSTEP EXTRA 1871 S)
- ARSTEP EXTRA 491 W (ARSTEP EXTRA 1871 W)
- ARSTEP EXTRA 492 (ARSTEP EXTRA 1733)
- ARSTEP EXTRA 493 (ARSTEP EXTRA 2152)
- ARSTEP EXTRA 493 S (ARSTEP EXTRA 1733 S)
- ARSTEP EXTRA 494 S (ARSTEP EXTRA 2190 S)
- ARSTEP EXTRA 495 (ARSTEP EXTRA 2192)
- ARSTEP EXTRA 496 W (ARSTEP EXTRA 1931-5W)

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 500 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 500 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 500 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 500	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 500 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Arstep Extra 500 W	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 500 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 500 S • **In Winter:** Arstep Extra 500 W • **At Normal Temperature:** Arstep Extra 500

Consumption Dosage

ARSTEP EXTRA 500 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 500 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 500 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 500 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 500 / 500 S
- ARSTEP EXTRA 501 / 501 W
- ARSTEP EXTRA 502 W / 502 WX
- ARSTEP EXTRA 513 / 513 S / 513 W
- ARTEP EXTRA 514 W (ARSTEP EXTRA 513 GW)
- ARSTEP EXTRA 518 S
- ARSTEP EXTRA 520
- ARSTEP EXTRA 530 (ARSTEP EXTRA 530 N)
- ARSTEP EXTRA 535 (ARSTEP EXTRA 535-5 W)
- ARSTEP EXTRA 539 W
- ARSTEP EXTRA 542 / 542 S / 542 W
- ARSTEP EXTRA 543 / 543 S
- ARSTEP EXTRA 549 / 549 S
- ARSTEP EXTRA 550 S
- ARSTEP EXTRA 553 / 553 W
- ARSTEP EXTRA 555 / 555 S / 555 W / 555 WX
- ARSTEP EXTRA 558
- ARSTEP EXTRA 559
- ARSTEP EXTRA 561 / 561 S / 561 W
- ARSTEP EXTRA 563 S / 563 W
- ARSTEP EXTRA 565 / 565 S / 565 W
- ARSTEP EXTRA 566 (ARSTEP EXTRA 2039)
- ARSTEP EXTRA 566 W (ARSTEP EXTRA 2039 W)
- ARSTEP EXTRA 567 W (ARSTEP EXTRA 2012 W)
- ARSTEP EXTRA 568 W (ARSTEP EXTRA 2275 W)
- ARSTEP EXTRA 577 / 577 S / 577 W
- ARSTEP EXTRA 578 W (ARSTEP EXTRA 577-3 W)
- ARSTEP EXTRA 579 W
- ARSTEP EXTRA 580 S
- ARSTEP EXTRA 589 S
- ARSTEP EXTRA 590 W
- ARSTEP EXTRA 596 / 596 S
- ARSTEP EXTRA 598

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 600 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 600 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 600 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 600	TS EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 600 S	TS EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Arstep Extra 600 W	TS EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 600 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 600 S • **In Winter:** Arstep Extra 600 W • **At Normal Temperature:** Arstep Extra 600

Consumption Dosage

ARSTEP EXTRA 600 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 600 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 600 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 600 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 600 S
- ARSTEP EXTRA 604 W
- ARSTEP EXTRA 615 / 615 S / 615 W
- ARSTEP EXTRA 616 (ARSTEP EXTRA 615-1)
- ARSTEP EXTRA 617
- ARSTEP EXTRA 620 / 620 S / 620 W
- ARSTEP EXTRA 622 S
- ARSTEP EXTRA 624 W
- ARSTEP EXTRA 625 / 625 W
- ARSTEP EXTRA 626 S
- ARSTEP EXTRA 632 S
- ARSTEP EXTRA 635 S
- ARSTEP EXTRA 641
- ARSTEP EXTRA 647 / 647 S / 647 W
- ARSTEP EXTRA 650 S
- ARSTEP EXTRA 661 / 661 W
- ARSTEP EXTRA 664 S
- ARSTEP EXTRA 665 / 665 S
- ARSTEP EXTRA 666 / 666 S / 666 W
- ARSTEP EXTRA 667 S / 667 W
- ARSTEP EXTRA 671 (ARSTEP EXTRA 672-1)
- ARSTEP EXTRA 672 / 672 S
- ARSTEP EXTRA 673 / 673 S / 673 W
- ARSTEP EXTRA 675 W (ARSTEP EXTRA 675 ÇW)
- ARSTEP EXTRA 678 W
- ARSTEP EXTRA 688 / 688 S / 688 W
- ARSTEP EXTRA 690

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 700 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 700 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 700 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 700	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 700 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Arstep Extra 700 W	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 700 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 700 S • **In Winter:** Arstep Extra 700 W • **At Normal Temperature:** Arstep Extra 700

Consumption Dosage

ARSTEP EXTRA 700 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 700 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 700 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 700 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 700 S
- ARSTEP EXTRA 701
- ARSTEP EXTRA 711 / 711 S CONS
- ARSTEP EXTRA 720 S
- ARSTEP EXTRA 723 (ARSETEP EXTRA 723 B)
- ARSTEP EXTRA 723 S / 723 W
- ARSTEP EXTRA 724 (ARSTEP EXTRA 723-3)
- ARSTEP EXTRA 725
- ARSTEP EXTRA 727 / 727 S
- ARSTEP EXTRA 728 / 728 W / 728 WX
- ARSTEP EXTRA 729 S / 729 W
- ARSTEP EXTRA 730 W
- ARSTEP EXTRA 735 W
- ARSTEP EXTRA 738 / 738 W
- ARSTEP EXTRA 740 (ARSTEP EXTRA 723 YBS)
- ARSTEP EXTRA 742 S
- ARSTEP EXTRA 750 S
- ARSTEP EXTRA 752 / 752 S / 752 W / 752 WX
- ARSTEP EXTRA 753 W (ARSTEP EXTRA 752 ÖZ W)
- ARSTEP EXTRA 758 / 758 W / 758 WX
- ARSTEP EXTRA 760 S
- ARSTEP EXTRA 762
- ARSTEP EXTRA 777 S
- ARSTEP EXTRA 780 S
- ARSTEP EXTRA 793 S / 793 W

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 800 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 800 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 800 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 800	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 800 S	EN 934-2 Table 11.1-.11.2 ASTM C 494 Type G
Arstep Extra 800 W	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 800 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 800 S • **In Winter:** Arstep Extra 800 W • **At Normal Temperature:** Arstep Extra 800

Consumption Dosage

ARSTEP EXTRA 800 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 800 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 800 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 800 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 800 S
- ARSTEP EXTRA 810
- ARSTEP EXTRA 813
- ARSTEP EXTRA 816 S
- ARSTEP EXTRA 820
- ARSTEP EXTRA 827 (ARSTEP EXTRA 827 / ARSTEP EXTRA 827 B)
- ARSTEP EXTRA 827 S / 827 W
- ARSTEP EXTRA 828 (ARSTEP EXTRA 828-2)
- ARSTEP EXTRA 830 (ARSTEP EXTRA 827 AGB)
- ARSTEP EXTRA 832
- ARSTEP EXTRA 838 / 838 W
- ARSTEP EXTRA 839
- ARSTEP EXTRA 840 S
- ARSTEP EXTRA 850 S
- ARSTEP EXTRA 855 / 855 S
- ARSTEP EXTRA 858 / 858 S / 858 W / 858 WX
- ARSTEP EXTRA 859 W
- ARSTEP EXTRA 860 (ARSTEP EXTRA 2512)
- ARSTEP EXTRA 867 / 867 S / 867 W
- ARSTEP EXTRA 871 / 871 S / 871 W
- ARSTEP EXTRA 873 / 873 W
- ARSTEP EXTRA 874 S (ARSTEP EXTRA 873-1 S)
- ARSTEP EXTRA 880 / 880 S
- ARSTEP EXTRA 888 S
- ARSTEP EXTRA 890 S

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 900 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 900 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 900 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 900	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 900 S	EN 934-2 Table 11.1-.11.2 ASTM C 494 Type G
Arstep Extra 900 W	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 900 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 900 S • **In Winter:** Arstep Extra 900 W • **At Normal Temperature:** Arstep Extra 900

Consumption Dosage

ARSTEP EXTRA 900 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, ARSTEP EXTRA 900 SERIES products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 900 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 900 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 900 S
- ARSTEP EXTRA 908 W
- ARSTEP EXTRA 910 / 910 S
- ARSTEP EXTRA 911 (ARSTEP EXTRA 2234)
- ARSTEP EXTRA 912 W
- ARSTEP EXTRA 913 W (ARSTEP EXTRA 2234 W)
- ARSTEP EXTRA 915 S
- ARSTEP EXTRA 916
- ARSTEP EXTRA 925 / 925 S / 925 W / 925 WX
- ARSTEP EXTRA 926 S (ARSTEP EXTRA 926 S-1)
- ARSTEP EXTRA 926 W
- ARSTEP EXTRA 927 (ARSTEP EXTRA 925 NS)
- ARSTEP EXTRA 929 WX (ARSTEP EXTRA 925-1 WX)
- ARSTEP EXTRA 930 / 930 S / 930 W / 930 WX
- ARSTEP EXTRA 931 W
- ARSTEP EXTRA 932 W
- ARSTEP EXTRA 933 (ARSTEP EXTRA 930 E)
- ARSTEP EXTRA 933 S (ARSTEP EXTRA 930 ES)
- ARSTEP EXTRA 934 S (ARSTEP EXTRA 930 D)
- ARSTEP EXTRA 936 / 936 S / 936 W / 936 WX
- ARSTEP EXTRA 937
- ARSTEP EXTRA 938 / 938 W
- ARSTEP EXTRA 939 (ARSTEP EXTRA 938-1 R)
- ARSTEP EXTRA 940 (ARSTEP EXTRA 936 EXTRA)
- ARSTEP EXTRA 941 (ARSTEP EXTRA 936-1 EXTRA)
- ARSTEP EXTRA 946 / 946 W
- ARSTEP EXTRA 950 / 950 S / 950 W / 950 WX
- ARSTEP EXTRA 955 WX
- ARSTEP EXTRA 956 S
- ARSTEP EXTRA 958
- ARSTEP EXTRA 960 W / 960 WX
- ARSTEP EXTRA 965 (ARSTEP EXTRA 925 N)
- ARSTEP EXTRA 965 W (ARSTEP EXTRA 925 NW)
- ARSTEP EXTRA 966
- ARSTEP EXTRA 967 / 967 S / 967 W / 967 WX
- ARSTEP EXTRA 968 (ARSTEP EXTRA 967-5 KC)
- ARSTEP EXTRA 969 W
- ARSTEP EXTRA 970 (ARSTEP EXTRA 2000 EXT)
- ARSTEP EXTRA 978 / 978 S / 978 W
- ARSTEP EXTRA 980 / 980 S

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP EXTRA

ARSTEP EXTRA 1000 Series

High Range Water Reducing / Superplasticizer Concrete Admixtures

Product Description

ARSTEP EXTRA 1000 SERIES products are naphthalene sulfonate / lignosulfonate based high range water reducing / superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
ARSTEP EXTRA 1000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Naphthalene sulfonate / Lignosulfonate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arstep Extra 1000	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F
Arstep Extra 1000 S	EN 934-2 Table 11.1-.11.2 ASTM C 494 Type G
Arstep Extra 1000 W	EN 934-2 Table 3.1-3.2 ASTM C 494 Type F

Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Extends the casting and placing time of concrete.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- Prevents cold joints during concrete production with long casting time.

Areas of Use

- Ready mixed concrete production (with or without pump)
- Hot weather concreting
- Long distance concrete transportation
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Precast and precast concrete production
- Mass concrete and roller compacted concrete applications

Terms of Use

- **ARSTEP EXTRA 1000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Arstep Extra 1000 S • **In Winter:** Arstep Extra 1000 W • **At Normal Temperature:** Arstep Extra 1000

Consumption Dosage

ARSTEP EXTRA 1000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP EXTRA 1000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP EXTRA 1000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSTEP EXTRA 1000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSTEP EXTRA 1000
- ARSTEP EXTRA 1001
- ARSTEP EXTRA 1050 (ARSTEP EXTRA 2526-1)
- ARSTEP EXTRA 1101
- ARSTEP EXTRA 1871 S / 1871 W

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET Series *admixtures are New Generation Superplasticizers.*

These are high range water reducing new generation superplasticizers; increasing the early and final strength of high performance concrete by reducing water / cement ratio in ready-mixed concrete and precast concrete production. There are slump retaining and set-retarding summer versions and set-accelerating winter versions that allow early formwork removal.

- New Generation Superplasticizer High Performance Concrete Admixtures

	PRODUCTS	DEGASET AS 1000 SERIES	DEGASET AS 2000 SERIES	DEGASET AS 3000 SERIES	DEGASET AX 1000 SERIES	DEGASET AX 2000 SERIES	DEGASET AX 3000 SERIES	DEGASET AX 4000 SERIES	DEGASET AX 5000 SERIES	DEGASET AX 6000 SERIES	DEGASET PC 7000 SERIES	DEGASET PC 8000 SERIES	DEGASET PC 9000 SERIES
USAGE AREAS	Ready-mixed Concrete Production	■	■	■	■	■	■	■	■	■			
	Precast Concrete Production										■	■	■
	Self Leveling Concrete Production	■	■	■	■	■	■	■	■	■			
	Shotcrete Production										■	■	■
	Zero-slump Concrete Production												
	Aggregate Looking Concrete (Wash Concrete) Production												
	Pouring Concrete in Hot Weather	■	■	■	■	■	■	■	■	■	■	■	■
	Pouring Concrete in Cold Weather	■	■	■	■	■	■	■	■	■	■	■	■
PURPOSE OF USAGE	Slump Retarding	■	■	■	■	■	■	■	■	■	■	■	■
	Set Acceleration[1]	■	■	■	■	■	■	■	■	■	■	■	■
	Set Retarder[2]	■	■	■	■	■	■	■	■	■	■	■	■
	Early High Strength	■	■	■	■	■	■	■	■	■	■	■	■
	Final High Strength	■	■	■	■	■	■	■	■	■	■	■	■
	Waterproofing	■	■	■	■	■	■	■	■	■	■	■	■
	Increasing The Hydration Temperature of Concrete and Preventing Freezing												
	Air-entraining												
	Set Retarder in Concrete Surface												
	Re-dosing The Consistency of Concrete												
	Accelerate Hardening												
	Alkali-Silica Reaction (ASR)												
	Corrosion Inhibitor												
	Pumping Aid												

1- Winter versions (W)
2- Summer versions (S)

DEGASET

DEGASET AS 1000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AS 1000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

TECHNICAL PROPERTIES	
Chemical Base	Modified polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AS 1000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AS 1000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AS 1000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AS 1000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture .
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AS 1000 S • **In Winter:** Degaset AS 1000 W • **At Normal Temperature:** Degaset AS 1000

Consumption Dosage

DEGASET AS 1000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AS 1000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AS 1000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AS 1000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AS 1000
- DEGASET AS 1110
- DEGASET AS 1143 S
- DEGASET AS 1248
- DEGASET AS 1667
- DEGASET AS 1856
- DEGASET AS 1975 / 1975 W
- DEGASET AS 1979 S (DEGASET AS 1979 SK)
- DEGASET AS 1989

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AS 2000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AS 2000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of dela ying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET AS 2000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AS 2000	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F
Degaset AS 2000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AS 2000 W	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AS 2000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AS 2000 S • **In Winter:** Degaset AS 2000 W • **At Normal Temperature:** Degaset AS 2000

Consumption Dosage

DEGASET AS 2000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AS 2000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AS 2000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AS 2000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AS 2016 (DEGASET AS 2016 B)
- DEGASET AS 2025
- DEGASET AS 2182
- DEGASET AS 2207
- DEGASET AS 2220 / 2220 R
- DEGASET AS 2238 S
- DEGASET AS 2255 / 2255 S
- DEGASET AS 2260
- DEGASET AS 2267
- DEGASET AS 2392
- DEGASET AS 2433 / 2433 S
- DEGASET AS 2434 S (DEGASET AS 2433-5 S)
- DEGASET AS 2435 (DEGASET AS 2433-5)
- DEGASET AS 2445 CONS / 2445 S CONS / 2445 W CONS
- DEGASET AS 2450
- DEGASET AS 2468
- DEGASET AS 2500 (DEGASET AX 729-1)
- DEGASET AS 2500 S (DEGASET AX 729-1 S)
- DEGASET AS 2500 W (DEGASET AX 729-1 W)
- DEGASET AS 2504 (DEGASET AX 729-4 S)
- DEGASET AS 2544
- DEGASET AS 2703 / 2703 S / 2703 W
- DEGASET AS 2850 / 2850 S / 2850 W
- DEGASET AS 2955
- DEGASET AS 2980

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AS 3000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AS 3000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
DEGASET AS 3000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AS 3000	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F
Degaset AS 3000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AS 3000 W	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AS 3000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AS 3000 S • **In Winter:** Degaset AS 3000 W • **At Normal Temperature:** Degaset AS 3000

Consumption Dosage

DEGASET AS 3000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AS 3000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AS 3000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AS 3000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AS 3000 / 3000 S
- DEGASET AS 3001 (DEGASET AX 844 S)
- DEGASET AS 3004 (DEGASET AX 867)
- DEGASET AS 3004 S (DEGASET AX 867 S)
- DEGASET AS 3004 W (DEGASET AX 867 W)
- DEGASET AS 3005 (DEGASET AX GD 870)
- DEGASET AS 3642 W
- DEGASET AS 3714
- DEGASET AS 3846

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AX 1000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AX 1000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 1000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AX 1000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 1000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 1000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 1000 S • **In Winter:** Degaset AX 1000 W • **At Normal Temperature:** Degaset AX 1000

Consumption Dosage

DEGASET AX 1000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AX 1000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 1000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 1000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 1453 S CONS / 1453 W CONS
- DEGASET AX 1741 / 1741 W

DEGASET

DEGASET AX 2000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AX 2000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET AX 2000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Modified polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 2000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AX 2000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 2000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 2000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 2000 S • **In Winter:** Degaset AX 2000 W • **At Normal Temperature:** Degaset AX 2000

Consumption Dosage

DEGASET AX 2000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, DEGASET AX 2000 SERIES products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 2000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 2000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 2218
- DEGASET AX 2295
- DEGASET AX 2311 / 2311 S
- DEGASET AX 2312 (DEGASET AX 2311-2)
- DEGASET AX 2376
- DEGASET AX 2424 (DEGASET AX 2424 E)
- DEGASET AX 2424 W
- DEGASET AX 2434 (DEGASET AX 2433-5 / 2433-5 B)
- DEGASET AX 2434 S (DEGASET AX 2433-5 S)
- DEGASET AX 2434 W (DEGASET AX 2433-5 W)
- DEGASET AX 2447 / 2447 S
- DEGASET AX 2448 (DEGASET AX 2447-1)
- DEGASET AX 2448 S (DEGASET AX 2447-1 S)
- DEGASET AX 2504
- DEGASET AX 2514
- DEGASET AX 2519
- DEGASET AX 2522 / 2522 S
- DEGASET AX 2522 SX (DEGASET AX 2522 S Extra)
- DEGASET AX 2523 WX (DEGASET AX 2522-1 W Extra)
- DEGASET AX 2524 (DEGASET AX 2522 T)
- DEGASET AX 2530 S (DEGASET AX 2522-1 S Extra)
- DEGASET AX 2530 SX (DEGASET AX 2522-1 SX)
- DEGASET AX 2539 / 2539 W
- DEGASET AX 2544
- DEGASET AS 2980

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AX 3000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AX 3000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
DEGASET AX 3000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Modified polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 3000	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F
Degaset AX 3000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 3000 W	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 3000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 3000 S • **In Winter:** Degaset AX 3000 W • **At Normal Temperature:** Degaset AX 3000

Consumption Dosage

DEGASET AX 3000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AX 3000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 3000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 3000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 3000 W
- DEGASET AX 3002 / 3002 S
- DEGASET AX 3004 / 3004 S
- DEGASET AX 3069
- DEGASET AX 3100
- DEGASET AX 3115 S
- DEGASET AX 3200
- DEGASET AX 3215 / 3215 S
- DEGASET AX 3220
- DEGASET AX 3232
- DEGASET AX 3300
- DEGASET AX 3390 / 3390 S
- DEGASET AX 3400
- DEGASET AX 3437
- DEGASET AX 3448
- DEGASET AX 3512 / 3512 S / 3512 SX / 3512 W / 3512 WX
- DEGASET AX 3513 S (DEGASET AX 3512-5 SX)
- DEGASET AX 3513 SX (DEGASET AX 3512 Sx Extra)
- DEGASET AX 3520 / 3520 S
- DEGASET AX 3562 / 3562 S
- DEGASET AX 3600 / 3600 W
- DEGASET AX 3778 / 3778 S / 3778 W
- DEGASET AX 3987 / 3987 S / 3987 W

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AX 4000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AX 4000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET AX 4000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 4000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AX 4000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 4000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 4000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 4000 S • **In Winter:** Degaset AX 4000 W • **At Normal Temperature:** Degaset AX 4000

Consumption Dosage

DEGASET AX 4000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AX 4000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 4000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 4000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 4000 / 4000 S
- DEGASET AX 4004 CONS / 4004 S CONS
- DEGASET AX 4007 / 4007 S / 4007 W
- DEGASET AX 4008 (DEGASET AX 4007-3)
- DEGASET AX 4008 S (DEGASET AX 4007-3 S)
- DEGASET AX 4008 SX (DEGASET AX 4007-3 SX)
- DEGASET AX 4014 / 4014 W
- DEGASET AX 4025 (DEGASET AX 4025 KRT)
- DEGASET AX 4025 S (DEGASET AX 4025 KRT S)
- DEGASET AX 4025 W (DEGASET AX 4025 KRT W)
- DEGASET AX 4030 / 4030 S / 4030 SX / 4030 W
- DEGASET AX 4031 / 4031 S / 4031 W / 4031 WX
- DEGASET AX 4032 (DEGASET AX 4031 ÖZ)
- DEGASET AX 4032 S (DEGASET AX 4031 ÖZ-S)
- DEGASET AX 4033 (DEGASET AX 4031-5 KS)
- DEGASET AX 4033 W (DEGASET AX 4031-5 KS W)
- DEGASET AX 4035 (DEGASET AX 4035 ÖZ)
- DEGASET AX 4035 S (DEGASET AX 4035 ÖZ-S)
- DEGASET AX 4035 W (DEGASET AX 4035 ÖZ W)
- DEGASET AX 4036 S (DEGASET AX 4031 KS S)
- DEGASET AX 4040 A (ihale ürünü / ismi değişecek.)
- DEGASET AX 4040 İ (ihale ürünü / ismi değişecek.)
- DEGASET AX 4040 S-A (ihale ürünü / ismi değişecek.)
- DEGASET AX 4050 (DEGASET AX 4050 HS)
- DEGASET AX 4050 S (DEGASET AX 4050 HS S)
- DEGASET AX 4050 W (DEGASET AX 4050 HS W)
- DEGASET AX 4069 S
- DEGASET AX 4100 / 4100 S / 4100 SX
- DEGASET AX 4104 S / 4104 W
- DEGASET AX 4114 / 4114 W
- DEGASET AX 4120 (DEGASET AX 4121 CC)
- DEGASET AX 4120 W (DEGASET AX 4121 CC W)
- DEGASET AX 4121
- DEGASET AX 4122 (DEGASET AX 4121 N)
- DEGASET AX 4122 S (DEGASET AX 4121 NS)
- DEGASET AX 4123 (DEGASET AX 4123 Z)

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AX 4000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Products of Series (Cont.)

- DEGASET AX 4123 W (DEGASET AX 4123 Z W)
- DEGASET AX 4123 S (DEGASET AX 4123 ZZ)
- DEGASET AX 4123 SX (DEGASET AX 4123 ZS)
- DEGASET AX 4124 / 4124 S / 4124 W
- DEGASET AX 4125 (DEGASET AX 4121 N-1)
- DEGASET AX 4126 (DEGASET AX 4121 N-75)
- DEGASET AX 4126 S (DEGASET AX 4121 N-75 S)
- DEGASET AX 4126 W (DEGASET AX 4121 N-75 W)
- DEGASET AX 4127 (DEGASET AX 4121 N-10)
- DEGASET AX 4128 (DEGASET AX 4121 N-13)
- DEGASET AX 4129 (DEGASET AX 4123-1 Z)
- DEGASET AX 4131 (DEGASET AX 4131 HS)
- DEGASET AX 4131 W (DEGASET AX 4031 HS W)
- DEGASET AX 4132
- DEGASET AX 4133 (DEGASET AX 4132-5)
- DEGASET AX 4134 (DEGASET AX 4135-2)
- DEGASET AX 4140 (DEGASET AX 4140 B)
- DEGASET AX 4141 S / 4141 W
- DEGASET AX 4148
- DEGASET AX 4154 (DEGASET AX 4153-2)
- DEGASET AX 4159 / 4159 W
- DEGASET AX 4180
- DEGASET AX 4187 (DEGASET AX 4186-5)
- DEGASET AX 4200 / 4200 W
- DEGASET AX 4203 / 4203 S / 4203 W
- DEGASET AX 4204 (DEGASET AX 4203 EXTRA)
- DEGASET AX 4204 W (DEGASET AX 4203 EXTRA W)
- DEGASET AX 4205 (DEGASET AX 4203-5 EXTRA)
- DEGASET AX 4205 W (DEGASET AX 4203-5 EXTRA W)
- DEGASET AX 4205 WX (DEGASET AX 4203-5 EXTRA WX)
- DEGASET AX 4207 S / 4207 W
- DEGASET AX 4217 S
- DEGASET AX 4230 S / 4230 W
- DEGASET AX 4235 / 4235 S / 4235 W
- DEGASET AX 4238 (DEGASET AX 4235-3)
- DEGASET AX 4255 / 4255 S / 4255 R
- DEGASET AX 4261 / 4261 S
- DEGASET AX 4280
- DEGASET AX 4300
- DEGASET AX 4307 / 4307 S / 4307 SX / 4307 W
- DEGASET AX 4308 (DEGASET AX 4307 K)
- DEGASET AX 4309 (DEGASET AX 4307-4)
- DEGASET AX 4321
- DEGASET AX 4331 / 4331 S / 4331 SX / 4331 W
- DEGASET AX 4335 S
- DEGASET AX 4338
- DEGASET AX 4343 / 4343 S / 4343 W / 4343 WX
- DEGASET AX 4355 / 4355 S / 4355 W
- DEGASET AX 4356 (DEGASET AX 4355 D)
- DEGASET AX 4357 / 4357 S
- DEGASET AX 4358 W (DEGASET AX 4355 MS / 4355 MS W)
- DEGASET AX 4359 W (DEGASET AX 4355-3 W)
- DEGASET AX 4364 / 4364 S / 4364 W
- DEGASET AX 4374 / 4374 S
- DEGASET AX 4400
- DEGASET AX 4402 (DEGASET AX 4402 Ç)
- DEGASET AX 4402 W (DEGASET AX 4402 Ç W)
- DEGASET AX 4407
- DEGASET AX 4416 (DEGASET AX 4416-2)
- DEGASET AX 4424 / 4424 S / 4424 W
- DEGASET AX 4427 SX
- DEGASET AX 4429 SX (DEGASET AX 4427-9 SX)
- DEGASET AX 4429 WX (DEGASET AX 4427-9 WX)
- DEGASET AX 4432
- DEGASET AX 4434 / 4434 W
- DEGASET AX 4444 / 4444 S / 4444 SX / 4444 W
- DEGASET AX 4445 (DEGASET AX 4444 ÇN)
- DEGASET AX 4450
- DEGASET AX 4451 (DEGASET AX 4450-2)
- DEGASET AX 4460 / 4460 S
- DEGASET AX 4463 / 4463 S / 4463 W
- DEGASET AX 4474 / 4474 S / 4474 W
- DEGASET AX 4475 (DEGASET AX 4474 F)
- DEGASET AX 4475 W (DEGASET AX 4474 WF)
- DEGASET AX 4476 (DEGASET AX 4474-2)
- DEGASET AX 4477 (DEGASET AX 4474-5 / DEGASET AX 4474-5 B)
- DEGASET AX 4477 S (DEGASET AX 4474-5 S)
- DEGASET AX 4477 W (DEGASET AX 4474-5 W)
- DEGASET AX 4507 / 4507 WX
- DEGASET AX 4515 (DEGASET AX 4510-69)
- DEGASET AX 4515 S (DEGASET AX 4510-6 S)
- DEGASET AX 4516
- DEGASET AX 4580
- DEGASET AX 4674
- DEGASET AX 4797 W
- DEGASET AX 4800
- DEGASET AX 4813 / 4813 S
- DEGASET AX 4848 / 4848 W / 4848 WX
- DEGASET AX 4872
- DEGASET AX 4891
- DEGASET AX 4950
- DEGASET AX 4965
- DEGASET AX 4967
- DEGASET AX 4993

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET AX 5000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

CE
2055 CPR-038

DEGASET

Product Description

DEGASET AX 5000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET AX 5000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 5000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AX 5000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 5000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 5000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 5000 S • **In Winter:** Degaset AX 5000 W • **At Normal Temperature:** Degaset AX 5000

DEGASET AX 5000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Consumption Dosage

DEGASET AX 5000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AX 5000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 5000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 5000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 5000
- DEGASET AX 5007 / 5007 S
- DEGASET AX 5008 (DEGASET AX 5007-1)
- DEGASET AX 5008 W (DEGASET AX 5007-1 W)
- DEGASET AX 5010
- DEGASET AX 5020
- DEGASET AX 5030
- DEGASET AX 5031 (DEGASET AX 5031 KRT)
- DEGASET AX 5031 S (DEGASET AX 5031 KRT S)
- DEGASET AX 5031 W (DEGASET AX 5031 KRT W)
- DEGASET AX 5040
- DEGASET AX 5100 / 5100 S / 5100 W
- DEGASET AX 5150 / 5150 S / 5150 W
- DEGASET AX 5151 (DEGASET AX 5150 B)
- DEGASET AX 5200
- DEGASET AX 5201 (DEGASET AX 5200-1)
- DEGASET AX 5201 S (DEGASET AX 5200-1 S)
- DEGASET AX 5201 W (DEGASET AX 5200-1 W)
- DEGASET AX 5202 W (DEGASET AX 5200-2 W)
- DEGASET AX 5202 WX (DEGASET AX 5200-2 WX)
- DEGASET AX 5266 / 5266 S / 5266 W
- DEGASET AX 5267
- DEGASET AX 5270 (DEGASET AX 5266-7)
- DEGASET AX 5280 (DEGASET AX 5300 R-2)
- DEGASET AX 5300 / 5300 S / 5300 SX / 5300 W / 5300 WX
- DEGASET AX 5301 (DEGASET AX 5300 R)
- DEGASET AX 5301 W (DEGASET AX 5300 RW)
- DEGASET AX 5302 (DEGASET AX 5300 RX)
- DEGASET AX 5303
- DEGASET AX 5303 SX (DEGASET AX 5310 S-1)
- DEGASET AX 5304 (DEGASET AX 5300 R-1)
- DEGASET AX 5306 (DEGASET AX 5300 BT)
- DEGASET AX 5307 (DEGASET AX 5300 BTA)
- DEGASET AX 5308 (DEGASET AX 5300 AS)
- DEGASET AX 5309 (DEGASET AX 5300 GMB)
- DEGASET AX 5309 S (DEGASET AX 5300 GMB S)

* In case of name change, the previous name of the product is shown in parenthesis.

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Products of Series (Cont.)

- DEGASET AX 5309 W (DEGASET AX 5300 GMB W)
- DEGASET AX 5310 (DEGASET AX 5300-5)
- DEGASET AX 5310 S / 5310 W
- DEGASET AX 5315 W
- DEGASET AX 5320 / 5320 S / 5320 SX
- DEGASET AX 5330
- DEGASET AX 5335 S / 5335 W / 5335 WX
- DEGASET AX 5336 (DEGASET AX 5335 SK)
- DEGASET AX 5337 (DEGASET AX 5335 R)
- DEGASET AX 5338 (DEGASET AX 5335 R-2)
- DEGASET AX 5338 S / 5338 W
- DEGASET AX 5339 (DEGASET AX 5335-2)
- DEGASET AX 5340 (DEGASET AX 5335 HS)
- DEGASET AX 5345
- DEGASET AX 5350
- DEGASET AX 5390
- DEGASET AX 5400 (DEGASET AX 5400 C)
- DEGASET AX 5400 S
- DEGASET AX 5401 (DEGASET AX 5400 RX)
- DEGASET AX 5401 S / 5401 W
- DEGASET AX 5402 (DEGASET AX 5400 RN)
- DEGASET AX 5402 S (DEGASET AX 5400 RN S)
- DEGASET AX 5402 SX (DEGASET AX 5400 RN SX)
- DEGASET AX 5402 W (DEGASET AX 5400 RN W)
- DEGASET AX 5402 WX (DEGASET AX 5400 RN WX)
- DEGASET AX 5403 (DEGASET AX 5400 K)
- DEGASET AX 5403 S (DEGASET AX 5400 KS)
- DEGASET AX 5404
- DEGASET AX 5407 / 5407 S / 5407 W
- DEGASET AX 5428
- DEGASET AX 5435 (DEGASET AX 5335 R-10)
- DEGASET AX 5435 S (DEGASET AX 5335 R-10 S)
- DEGASET AX 5435 SX (DEGASET AX 5335 R-10 S EXTRA)
- DEGASET AX 5435 W (DEGASET AX 5335 R-10 W)
- DEGASET AX 5440 / 5440 S
- DEGASET AX 5450 / 5450 S
- DEGASET AX 5470 / 5470 W
- DEGASET AX 5500 / 5500 S / 5500 SX / 5500 W / 5500 WX
- DEGASET AX 5501 S (DEGASET AX 5500-1 S)
- DEGASET AX 5501 SX (DEGASET AX 5500 SXX)
- DEGASET AX 5501 W (DEGASET AX 5500-1 W)
- DEGASET AX 5600 / 5600 S / 5600 SX
- DEGASET AX 5601 SX (DEGASET AX 5600 SXX)
- DEGASET AX 5625 CONS
- DEGASET AX 5714
- DEGASET AX 5715 (DEGASET AX 5714-1)
- DEGASET AX 5715 W (DEGASET AX 5714-1 W)
- DEGASET AX 5836
- DEGASET AX 5850 S / 5850 SX / 5850 W
- DEGASET AX 5854 / 5854 S
- DEGASET AX 5890
- DEGASET AX 5909
- DEGASET AX 5910
- DEGASET AX 5960
- DEGASET AX 5967
- DEGASET AX 5968 / 5968 S
- DEGASET AX 5977

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET AX 6000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET AX 6000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET AX 6000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset AX 6000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset AX 6000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset AX 6000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Ready-mixed concrete production (with or without pump)
- Self-compacting concrete production
- Production of concrete that can easily set to densely reinforced concrete elements
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Injection and casting applications
- In precast and prefabricated production
- High performance concrete production

Terms of Use

- **DEGASET AX 6000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset AX 6000 S • **In Winter:** Degaset AX 6000 W • **At Normal Temperature:** Degaset AX 6000

Consumption Dosage

DEGASET AX 6000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET AX 6000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET AX 6000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET AX 6000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET AX 6000 / 6000 W
- DEGASET AX 6001 (DEGASET AX 6000 KYB)
- DEGASET AX 6010
- DEGASET AX 6020
- DEGASET AX 6400
- DEGASET AX 6500
- DEGASET AX 6581
- DEGASET AX 6850

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET PC 7000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET PC 7000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset PC 7000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset PC 7000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset PC 7000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Precast and precast concrete production
- Self-compacting and compacted concrete production
- In the production of prestressed concrete with low water / cement ratio
- In wet shotcrete production
- In places that need to stay early
- In the production of concrete that can be easily placed in densely reinforced concrete elements
- In the production of all kinds of light or normal weight concrete, with or without reinforcement
- In the production of high performance concrete
- R.P.C concrete production

Terms of Use

- **DEGASET PC 7000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset PC 7000 S • **In Winter:** Degaset PC 7000 W • **At Normal Temperature:** Degaset PC 7000

Consumption Dosage

DEGASET PC 7000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET PC 7000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET PC 7000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET PC 7000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET PC 7010 (DEGASET PC 10)
- DEGASET PC 7033 CONS
- DEGASET PC 7034 CONS (DEGASET PC 7033-1 CONS)
- DEGASET PC 7070
- DEGASET PC 7500 / 7500 W
- DEGASET PC 7555

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET PC 8000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET PC 8000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.

Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.

DEGASET PC 8000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset PC 8000	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F
Degaset PC 8000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset PC 8000 W	EN 934-2 Table 3.1 – 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Precast and precast concrete production
- Self-compacting and compacted concrete production
- In the production of prestressed concrete with low water / cement ratio
- In wet shotcrete production
- In places that need to stay early
- In the production of concrete that can be easily placed in densely reinforced concrete elements
- In the production of all kinds of light or normal weight concrete, with or without reinforcement
- In the production of high performance concrete
- R.P.C concrete production

Terms of Use

- **DEGASET PC 8000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset PC 8000 S • **In Winter:** Degaset PC 8000 W • **At Normal Temperature:** Degaset PC 8000

Consumption Dosage

DEGASET PC 8000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET PC 8000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET PC 8000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET PC 8000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET PC 8000
- DEGASET PC 8040
- DEGASET PC 8200 / 8200 CONS / 8200 S / 8200 SX / 8200 W
- DEGASET PC 8201 (DEGASET PC 8200 N)
- DEGASET PC 8210
- DEGASET PC 8620
- DEGASET PC 8650
- DEGASET PC 8655

* In case of name change, the previous name of the product is shown in parenthesis.

DEGASET

DEGASET PC 9000 Series

High Water Reducing / New Generation Superplasticizer Concrete Admixtures

Product Description

DEGASET PC 9000 SERIES products are polycarboxylate polymer based high water reducing / new generation superplasticizer concrete additives used to increase the workability and mechanical properties of concrete by reducing the water / cement ratio.
Summer **(S)** type products have the feature of delaying setting (consistency protection) in hot weather. Winter **(W)** type allows concrete casting in cold weather conditions. In addition, the products in this product group are also available in concentrated form **(CONS)**.
DEGASET PC 9000 SERIES products have more water cutting and consistency protection features compared to other sub-series groups.

TECHNICAL PROPERTIES	
Chemical Base	Polycarboxylate based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Degaset PC 9000	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F
Degaset PC 9000 S	EN 934-2 Table 11.1-11.2 ASTM C 494 Type G
Degaset PC 9000 W	EN 934-2 Table 3.1 - 3.2 ASTM C 494 Type F

Advantages

- Improves concrete's early and ultimate compressive and tensile strengths and impermeability to water.
- With its high range water reducing capabilities, enables concrete production with low water / cement ratio. Makes corrosion free concrete production possible.
- Enables concrete production with low water / cement ratio free of bleeding and segregation risks.
- Minimizes formwork striking time.
- Increases abrasion resistance of concrete by minimizing segregation and bleeding.
- Shortens application time of resin based flooring systems on fresh concrete.
- Increases freeze-thaw resistance of concrete.
- Easy placement of formwork saves energy from vibration labor.
- Easy setting to densely reinforced sections and impermeable concrete production with smooth surface finish.
- Enables early high strength concrete production in low temperatures.
- Compatible with all cement types.

Areas of Use

- Precast and precast concrete production
- Self-compacting and compacted concrete production
- In the production of prestressed concrete with low water / cement ratio
- In wet shotcrete production
- In places that need to stay early
- In the production of concrete that can be easily placed in densely reinforced concrete elements
- In the production of all kinds of light or normal weight concrete, with or without reinforcement
- In the production of high performance concrete
- R.P.C concrete production

Terms of Use

- **DEGASET PC 9000 SERIES** products are recommended to be added to the mixing water in ready-mixed concrete production plants. It should not be added directly to the dry mixture.
- If it is added directly to fresh concrete, the mixing time should be extended for at least 1-2 minutes at fast speed to ensure sufficient homogeneity or this time should be determined in laboratory trials.
- When more additives are used than the specified range of use, it may affect the setting time of the concrete. In such cases, a preliminary test should be done in the laboratory.

Usage according to weather conditions;

• **In Summer:** Degaset PC 9000 S • **In Winter:** Degaset PC 9000 W • **At Normal Temperature:** Degaset PC 9000

Consumption Dosage

DEGASET PC 9000 SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **DEGASET PC 9000 SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

DEGASET PC 9000 SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Waterproof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container
- Bulk

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing it mechanically before using it.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **DEGASET PC 9000 SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- DEGASET PC 9000
- DEGASET PC 9040
- DEGASET PC 9200

ARSET

ARSET Series *Products are Special Concrete Admixtures and Complementary Products. These concrete admixtures and complementary products are used for special purposes in ready-mixed concrete, precast concrete production and large scale construction projects.*

- Set Accelerating Admixtures
- Set Retarder Admixtures
- Air-entraining Admixtures
- Antifreeze Concrete Admixtures
- Re-dosing Admixtures
- Zero-slump Concrete Admixtures
- Early Strength Increasing Additives
- Surface Retarding Admixtures
- Waterproofing Admixtures
- Curing Compounds
- Shotcrete Admixtures
- Alkali-Slica Reaction Controlling Admixtures
- Corrosion Inhibiting Admixtures
- Pumping Aids
- Underwater Concrete Admixtures
- Concrete Remover Chemicals
- Mould Releasing Agents

ARSET

	PRODUCTS	ARSET FAST SERIES	ARSET RETARD SERIES	ARSET AIR SERIES	ARSET FRIZ SERIES	ARSET DOZ SERIES	ARSET ZERO SERIES	ARSET SA 40	ARSET SURFACE SERIES	ARSET WATERPROOF SERIES	ARSET KUR SERIES	ARSET SHOT SERIES	ARSET STOP ASR	ARSET CORROSTOP	ARSET PUMP	ARSET VISCO SERIES	ARSET REMOVER SERIES	ARSET LUB SERIES
USAGE AREAS	Ready-mixed Concrete Production																	
	Precast Concrete Production																	
	Self Leveling Concrete Production																	
	Shotcrete Production											■						
	Zero-slump Concrete Production						■											
	Aggregate Looking Concrete (Wash Concrete) Production								■									
	Pouring Concrete in Hot Weather		■															
	Pouring Concrete in Cold Weather	■			■													
PURPOSE OF USAGE	Slump Retarding		■															
	Set Acceleration[1]	■			■													
	Set Retarder[2]		■															
	Early High Strength							■										
	Final High Strength							■										
	Waterproofing									■								
	Increasing The Hydration Temperature of Concrete and Preventing Freezing	■			■													
	Air-entraining			■														
	Set Retarder in Concrete Surface								■									
	Re-dosing the Consistency of Concrete					■												
	Accelerate Hardening	■																
	Alkali-Silica Reaction (ASR)												■					
	Corrosion Inhibitor													■				
	Pumping Aid														■			

1- Winter versions (W)
2- Summer versions (S)

ARSET

ARSET FAST Series

Set Accelerating Admixtures

Product Description

ARSET FAST SERIES products are concrete and mortar admixture that provides early setting by accelerating hydration. Increases early strength of concrete without negatively affecting final strength.

TECHNICAL PROPERTIES	
Chemical Base	Organic-Inorganic material mixtures
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Fast Series	TS EN 934-2

Advantages

- Depending on the cement type and concrete temperature, it significantly increases early strength of concrete in the first 24 hours.
- It accelerates the hydration reaction of cement in cold weather and provides concrete to set early.
- Reduces mold release time.
- Protects concrete from freezing.
- Does not contain chloride or any other components that will result in corrosion of the reinforcement. Suitable for use in any reinforced concrete structures.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- For concrete production where very high early strength is required
- Concrete production in cold weather
- Where frost effect is expected
- When sudden temperature drop is expected
- Multi-reinforced concrete
- In ready-mix concrete, in pouring precast and prefabricated concrete
- Where it is necessary to mold early or load the molds quickly
- It can be used in combination with normal and superplasticizers however using in combination with admixtures that have retarding effect is not recommended

Terms of Use

When pouring concrete in cold weather, the following issues should be considered:

- Aggregate, water and cement should be stored under suitable conditions to prevent the effects of cold.
- Instead of blended cement, cements with high clinker ratio should be preferred.
- The formwork and reinforcement should be protected against water, snow and icing. If necessary, ice and water should be removed by heating before concrete casting.
- Molds should be isolated.
- Fresh concrete temperature should be at least 5-15 °C. Concrete should be covered to prevent heat and moisture loss and should be well protected until it reaches 4-5 N/mm2 pressure resistance.
- **ARSET FAST SERIES** products must not be used with set retarder admixtures (Arset Retard Series).

Consumption Dosage

ARSTEP FAST SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

ARSET FAST SERIES products may be added with the mixing water or simultaneously during the mixing water is introduced to the concrete. It can also be added to the fresh ready mix concrete at the concrete plant or construction site.

Compatibility with Other Admixtures

ARSTEP FAST SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series admixtures
- Arset Air Series
- Arset Doz
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET DOZ SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET FAST 2
- ARSET FAST 3 (ARSET FAST ZX)
- ARSET FAST 6 / FAST 6 CONS
- ARSET FAST 7

* In case of name change, the previous name of the product is shown in parenthesis.

ARSET

ARSET RETARD Series

Set Retarder Admixtures

Product Description

ARSET RETARD SERIES products are a set retarding concrete and mortar admixtures.

TECHNICAL PROPERTIES	
Chemical Base	Organic-Inorganic material mixtures
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Retard Series	TS EN 934-2 Table 8 ASTM C 494 Type B

Advantages

- Ensures controlled prolongation of setting of concrete.
- Does not have adverse effects on final strengths.
- Reduces creeping and contraction.
- Increases workability.
- Minimizes the effects of temperature.
- Reduces segregation and bleeding of concrete.
- Ensures easy pumping.
- Prevents the concrete from losing its viscosity fast, provides for extended viscosity protection depending on the type of cement used.
- Prevents shrinkage cracks that may result from high hydration temperatures.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- In case the concrete is transported over a long distance; in case of pouring large volumes of concrete (mass concrete) and preventing cold joints
- In high temperature concrete casting
- In long-wait concrete casting
- In thin-reinforced reinforced concrete productions with placement difficulties
- In the production of concrete where impermeability is required
- It is used in places that will be subject to vibration again
- It is used to compensate the loss of consistency in hot, windy and humid weather

Terms of Use

- Concrete components may differ by their structures. The admixture to be added into the mixture to prevent segregation of the concrete should be applied in the suitable doses. Prior tests should be performed to check whether the admixture is suitable for the design of a certain concrete.
- In case of using the admixture in the amount exceeding the specified use range, the setting time of the concrete may be prolonged. In such cases, the concrete should be kept humid to allow for curing until it hardens.
- **ARSET RETARD SERIES** products must not be used with setting / hardening accelerator admixtures (Arset Fast Series or Arset Friz Series).

Consumption Dosage

ARSTEP RETARD SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

ARSET RETARD SERIES products may be added with the mixing water or simultaneously during the mixing water is introduced to the concrete. It can also be added to the fresh ready mix concrete at the concrete plant or construction site.

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Compatibility with Other Admixtures

ARSTEP RETARD SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series admixtures
- Arset Air Series
- Arset Doz
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET RETARD SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET RETARD
- ARSET YAPITEKS 67

ARSET

ARSET AIR Series

Air-entraining Admixtures

Product Description

ARSET AIR SERIES products are an air-entraining admixture for concrete. It is used for workable and durable concrete production in order to protect the concrete against freeze-thaw effects.

TECHNICAL PROPERTIES	
Chemical Base	Surface active agents
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Air Series	TS EN 934-2 Table 5 ASTM C 260

Advantages

- Improves workability.
- Increases freeze-thaw resistance.
- Increases resistance of concrete against de-icing salt.
- Increases durability.
- Decreases water quantity without loss of workability.
- Reduces the risk of segregation.
- Improves cohesion.
- It has no positive or negative effects on setting of concrete.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- Airports, runways and taxiways
- Concrete roads
- Dams and water tanks
- Freeze-thaw resistant concrete production
- Lightweight hollow concrete production
- Mass concrete pouring structures
- In ready mixed concrete

Terms of Use

- It is suitable for use with all types of concrete with or without additives.
- It is used with air entrainment to increase its freeze-thaw resistance.
- The amount and type of aggregate used, cement dosage, cement type, fineness, consistency, water / cement ratio and temperature may negatively affect the amount of air; in such cases, the additive dose may need to be increased.
- Avoid evaporation of the mixing water in the concrete at high temperatures. During the curing phase, curing can be used to prevent rapid evaporation of moisture in the concrete and crack formation.
- Steel, polypropylene and organic fibers can be used against shrinkage cracks.
- It is recommended to carry out tests before using the products.

Consumption Dosage

ARSTEP AIR SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

ARSET AIR SERIES products are used by adding the mixing water before it is added to the aggregate. It should not be added over the dry mixture. When used with other additives, each additive must be added to the mix individually.

Compatibility with Other Admixtures

ARSTEP AIR SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset series admixtures
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET AIR SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet.

Products of Series

- ARSET AIR
- ARSET AIR L

ARSET

ARSET FRIZ Series

Antifreeze Concrete Admixtures

Product Description

ARSET FRIZ SERIES products are antifreeze concrete admixture that protects the concrete from freezing and ensures high-quality pouring of concrete where it is necessary to postpone pouring the concrete due to cold weather and risk of frost.

TECHNICAL PROPERTIES	
Chemical Base	Special salt based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Friz Series	TS EN 934-2 Table 6 ASTM C 494 Type C

Advantages

- Accelerates setting time of concrete by accelerating hydration reaction of cement in cold weather.
- In order to prevent freezing, it enables the concrete to reach its minimum compressive strength (4-5 N / mm²) rapidly.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- For concrete production where very high early strength is required
- Concrete production in cold weather
- Where frost effect is expected
- When sudden temperature drop is expected
- Multi-reinforced concrete
- In ready-mix concrete, in pouring precast and prefabricated concrete
- Where it is necessary to mold early or load the molds quickly
- It can be used in combination with normal and superplasticizers however using in combination with admixtures that have retarding effect is not recommended

Terms of Use

When pouring concrete in cold weather, the following issues should be considered:

- Aggregate, water and cement should be stored under suitable conditions to prevent the effects of cold.
- Instead of blended cement, cements with high clinker ratio should be preferred.
- The formwork and reinforcement should be protected against water, snow and icing. If necessary, ice and water should be removed by heating before concrete casting.
- Molds should be isolated.
- Fresh concrete temperature should be at least 5-15 °C. Concrete should be covered to prevent heat and moisture loss and should be well protected until it reaches 4-5 N/mm2 pressure resistance.
- **ARSET FRIZ SERIES** products must not be used with set retarder admixtures (Arset Retard Series).
- Depends on the cement and aggregate used, ambient temperature and the mixture ratio, and the setting speeds up depending on the dosage applied.
- Since hydration stops at temperatures lower than -5°C, the concrete should not left to set but protected using suitable curing methods until it achieves adequate strength (minimum 5 N/mm² on average).

Consumption Dosage

ARSTEP FRIZ SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

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Method of Application

ARSET FRIZ SERIES products may be added with the mixing water or simultaneously during the mixing water is introduced to the concrete. It can also be added to the fresh ready mix concrete at the concrete plant or construction site.

Compatibility with Other Admixtures

ARSTEP FRIZ SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series admixtures
- Arset Air Series
- Arset Doz Series
- Arset Proof Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET FRIZ SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET FRIZ 100 / FRIZ 100 M / FRIZ 100 L / FRİZ 100 CONS
- ARSET FRIZ 150
- ARSET FRIZ 200
- ARSET FRIZ 210
- ARSET FRIZ 215
- ARSET FRIZ 250
- ARSET FRIZ 300
- ARSET FRİZ 500

ARSET

ARSET DOZ Series

Re-dosing Concrete Admixtures

Product Description

ARSET DOZ SERIES products are a concrete consistency regulating re-dosing admixture that is mixed to concrete on site to improve pumpability and placing of concrete with low consistency.

TECHNICAL PROPERTIES	
Chemical Base	Polymer based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Doz Series	TS EN 934-2

Advantages

- Improves workability of concrete with low consistency.
- Ensures workability of concrete by increasing the lost viscosity without addition of water
- Prevents strength loss of concrete.
- Shortens pumping time.
- By improving concrete consistency, it makes pumpability possible.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- Ready mix concrete and in pouring precast concrete
- In eliminating loss of viscosity due to hot, windy and humid weather
- In pouring concrete with a long period of delay

Terms of Use

ARSET DOZ SERIES products used by directly mixing into the concretes which has difficulty compacting due to loss of viscosity.

Consumption Dosage

ARSTEP DOZ SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

ARSET DOZ SERIES products used by directly mixing into the concretes which has difficulty compacting due to loss of viscosity. After the admixture is added to the concrete, further mixing within the truck mixer obtaining at the maximum speed (~15 rpm) for 3 minutes is required for homogenous mixture. After adding **ARSET DOZ** upon validating by slump testing and observation, if the required slump level is obtained concrete pumping can be started.

Compatibility with Other Admixtures

ARSTEP DOZ SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series admixtures
- Arset Air Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET DOZ SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET DOZ 12
- ARSET DOZ 34
- ARSET DOZ 35
- ARSET DOZ 44
- ARSET DOZ 48
- ARSET DOZ 39
- ARSET DOZ 50
- ARSET DOZ 55
- ARSET DOZ 58
- ARSET DOZ 59
- ARSET DOZ 81
- ARSET DOZ 82
- ARSET DOZ 85
- ARSET DOZ 89
- ARSET DOZ 100
- ARSET DOZ 110

ARSET

ARSET ZERO Series

Zero-slump Concrete Admixtures

Product Description

ARSET ZERO SERIES products are a compaction aid for semi-dry, no slump concrete.

TECHNICAL PROPERTIES	
Chemical Base	Modified polymer based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Zero Series	TS EN 934-2

Advantages

- Improved surface finish.
- Homogenous distribution of cement, mineral additives and pigments.
- Decreases friction between the concrete and the mould.
- Increases mould filling speed.
- Shortens compaction time.
- Reduces stickiness between concrete top surface and compaction equipment.
- Increases freeze-thaw stability.
- Increases initial and ultimate compressive and tensile strength.
- Increases concrete stability and service life.
- Enables a more economic concrete production.
- Increases productivity.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- Paving stone production
- Curbstones
- Concrete tiles
- Building blocks and bricks
- Garden and landscaping elements

Terms of Use

- Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.
- It should not be used in flowable concrete production. It may cause excessive air entrainment and loss of strength of concrete.

Consumption Dosage

ARSTEP ZERO SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

Aggregates and the binder (cement-silica fume-fly ash-blast furnace slag) should be mixed until obtaining a homogenous mixture. After adding 70% of mixing water into the dry mixture, **ARSTEP ZERO SERIES** products should be added into the rest of water and should be mixed properly.

Compatibility with Other Admixtures

ARSTEP ZERO SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air Series
- Arset Doz Series
- Arset Fast Series
- Arset Friz
- Arset Retard Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET ZERO SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET ZERO 60
- ARSET ZERO 90
- ARSET ZERO 100
- ARSET ZERO 250
- ARSET ZERO 251 (ARSET ZERO 250-1)
- ARSET ZERO 255 W (ARSET ZERO 250-5 W)
- ARSET ZERO 300
- ARSET ZERO 500

* In case of name change, the previous name of the product is shown in parenthesis.

ARSET

ARSET SA 40

Early Strength Increasing Additive

Product Description

ARSET SA 40 is used as an accelerator additive in concrete chemicals. It increases early strength without adversely affecting the final strength of concrete.

TECHNICAL PROPERTIES	
Chemical Base	Sulfoamine based
Color / Appearance	Brown liquid
pH	10,50 - 12,50
Density	1,21 ± 0,03 g/cm3
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset SA 40	TS EN 934-2

Advantages

- It is used with normal and superplasticizers. However, it is not recommended to be used with additives that have a retarding effect.
- Depending on the cement type and the temperature of the product, it significantly increases the early strength of the material in the first 24 hours.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- In the production of concrete and mortar where early high strength is required
- Concrete and mortar applications in cold weather conditions
- In cement and gypsum-based products where early strength is required

Terms of Use

Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Consumption Dosage

It is used at a ratio of 1.0-2.5% of the total mass. Optimum utilization rate should be determined according to laboratory trials.

Method of Application

ARSET SA 40 can be added to the mixing water or added to fresh concrete before discharge at the construction site. In this case, it will be sufficient to extend the mixing time for 1-2 minutes in order for the concrete mixture to be homogeneous.

Compatibility with Other Admixtures

ARSET SA 40 can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Doz
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Some subsidence may occur during long-term storage. In this case, the product can be used by filtering.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET SA 40** is not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

ARSET

ARSET SURFACE Series

Surface Retarding Admixtures

Product Description

ARSET SURFACE SERIES is water based, single component, solvent free surface retarder, used for exposed aggregate concrete production.

TECHNICAL PROPERTIES	
Chemical Base	Organic material based
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Surface Series	TS EN 934-2

Advantages

- It delays the hydration of the cement on the concrete surface.
- It reduces the roughening labor costs. It is easy to apply.
- Does not contain solvent.
- It can be diluted according to the application purpose.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- It is used in architectural applications (wash concrete, exposed aggregate concrete) where an aggregate-looking surface is required in precast or on-site concrete
- It is used to roughen fresh concrete surfaces in horizontal construction joints
- It is easier to apply than physical etching (sandblasting, notching, chipping, etc.)
- It provides an important convenience for screed or liquid applications

Consumption Dosage

The usage dosage of **ARSET SURFACE SERIES** products should be determined according to the roughness and absorbency of the mold, the desired dilution rate and roughening depth.

Method of Application

- The depth of the retarded layer depends on the amount of product applied, the time until the retarder is removed from the surface, the amount of water and cement in the mixture and the ambient temperature.
- It can be applied with a brush, roller or spray equipment.
- It should be used in clean molds.
- It can be diluted with clean water at a ratio between 1: 1 and 1: 3 (1 part product: 3 parts water) depending on the desired effect.
- When working with molds made of highly absorbent material, at least 2 layers should be applied.
- If the product is to be applied to the concrete surface, it should be applied before the first setting of the newly poured concrete after the perspiration water is removed from the surface.
- If the product is applied to the mold surface, the concrete should be poured into the mold immediately after the application.
- It should be protected from rain and frost.
- Depending on the ambient temperature and curing conditions, the molds should be opened as soon as possible, washed with pressurized water and brushed when necessary.

Compatibility with Other Admixtures

ARSTEP SURFACE SERIES can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Doz
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Some subsidence may occur during long-term storage. In this case, the product can be used by filtering.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET SURFACE SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET SURFACE
- ARSET SURFACE H

ARSET

ARSET WATERPROOF Series

Waterproofing Admixtures

Product Description

ARSET WATERPROOF SERIES products are waterproof additives specially developed for concrete.

TECHNICAL PROPERTIES	
Chemical Base	Organic-Inorganic material mixtures
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Waterproof Series	TS EN 934-2

Advantages

- Use all types of cements.
- Improves workability of concrete.
- Enables easy placement and compaction of concrete.
- Helps to achieve a denser concrete and smooth surface.
- Increases water tightness.
- Improves durability and strength of concrete.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- Water tanks
- Canals
- Water structures
- Swimming pools
- Wastewater treatment pools
- Tunnels and culverts
- All concrete structures where waterproofing is required

Terms of Use

Concrete mix design and admixture dosage should be determined by laboratory tests according to the concrete class and properties.

Consumption Dosage

ARSTEP WATERPROOF SERIES products' dosage should be adjusted according to the total amount of binder in the mixture design. This ratio varies according to the cement, aggregate, mineral additive, water components used in concrete mixture design and also the desired fresh and hardened concrete properties. Therefore, before determining the usage rate, laboratory tests should be made according to the properties expected from fresh and hardened concrete and the mixing ratio should be determined according to these tests.

Method of Application

ARSTEP WATERPROOF SERIES products must be added to the mixing water.

Compatibility with Other Admixtures

ARSTEP WATERPROOF SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Products
- Arset Air Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

CE
2055 CPR-038

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5°C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET WATERPROOF SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET KRİSTALİZE
- ARSET PROOF / PROOF CONS

ARSET

ARSET KUR Series

Curing Compounds

Product Description

ARSET KUR SERIES products are a acrylic copolymer or paraffin based one component curing compound that is applied on cementitious surfaces. Applied onto the poured fresh concrete to prevent fast loss of water.

TECHNICAL PROPERTIES			
Chemical Base	Acrylic copolymer or paraffin based	**Color / Appearance**	Homogeneous liquid

Advantages

- Ready-to-use can be applied easily.
- Prevents shrinkage by reducing water loss rate of fresh concrete.
- Chloride and organic solvent-free.
- Minimizes cracks.
- Decreases dusting on the surface.
- It allows for curing of the concrete and achieving maximum performance without affecting the normal setting of concrete by means of retaining the water within the concrete by means of the thin film it creates on the surface.
- It must be used especially all kinds of weather conditions in high evaporation. It prevents the shrinkage cracks and surface dusting.
- It does not prevent the adherence of cementitious and gypsum plasters to be applied on it.

Areas of Use

- On the fresh concrete and screed surfaces
- At the surface hardener applications
- In order to prevent concrete mixing water evaporation after removing the moulds
- At airport concrete and aprons
- Irrigation channels
- This product can be applied in all kinds of field concrete, channel and flume concretes and all of the surface curing applications

Terms of Use

- It is applied over the new concrete or on the top of the surface hardeners that was applied to fresh concrete by brush or roller.
- However, the concrete should be hardened enough in order to avoid damaging the surface. Immediately after the outdoor applications, the surface should be protected against the effects like rain, snow, etc. for 2-3 hours. At the end of this period, the curing material is not affected by the external factors.
- It is a ready-to-use product and should not be diluted with water. Please shake well before use.
- It cannot be applied on dry concrete surfaces. It must not be applied to the wet surfaces.
- It should not be applied on non-porous, non-absorbent and glazed surfaces.
- After the water on the freshly poured concrete evaporates, it should be applied in a thin film using a spray gun or compressed air spray machines or a roll.
- Cured areas should not be stepped on and protected from rain until they are dry.
- During the implementation, air circulation is necessary.
- Ponding and formation of bubbles should be prevented.
- The color differences on the surface shall disappear in time. It is recommended to try the product on small areas prior to application.

Consumption Dosage

The usage of **ARSET KUR SERIES** products varies depending on the ambient temperature, humidity and wind.

Method of Application

- **ARSET KUR SERIES** products are applied directly by a brush, a roll or by spraying on the surface when the surface is started to become mat after fresh concrete is poured and leveling process is completed.
- It should be applied approximately 30-45 minutes after surface hardener process has finished depending on the ambient temperature.
- It should be applied after removing the moulds. Dust, dirt and other items on the existing surface that prevent bonding should be cleaned before the application.
- It gives a transparent, mat appearance after the application.

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET KUR SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET KUR AC
- ARSET KUR P

ARSET

ARSET SHOT Series

Shotcrete Additives

Product Description

ARSET SHOT SERIES products are high performance concrete additives specially designed to provide high early and final compressive strength in shotcrete applications. **ARSET SHOT SERIES** can be adjusted to give the optimum setting characteristics in different environments.

TECHNICAL PROPERTIES	
Chemical Base	Special inorganic compounds mixtures
Color / Appearance	Homogeneous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Shot Series	TS EN 934-5 Table 2 ASTM C 1141 Type II

Advantages

- Increases early strength of concrete.
- Low rebound.
- Provides layer thickness up to 30 cm with one application.
- Becomes easy overhead spraying because improved the bond of the shotcrete to the rock and concrete.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- In tunnels
- Ground and slope stabilization
- Shotcrete applications with high early strength properties
- In mining applications

Terms of Use

ARSTEP SHOT SERIES products are added through the appropriate shotcrete nozzle. The mixing of concrete and proper nozzle process is required. Fresh concrete properties must be appropriated according to the shotcrete equipment, capacity of the equipment, ambient temperature and other conditions.

Consumption Dosage

ARSTEP SHOT SERIES products are generally dosed at rates ranging from 2.5% to 8% by weight of cement. Dosages will vary depending on desired acceleration, ambient conditions and cement used. Use of alkali-free accelerators to attain very early initial set times will cause lower 28 day strengths to occur. For this reason, it is important to determine the lowest practical dose rate to attain desired acceleration.

Method of Application

The right dosing, mixing and nozzle operation is crucial for reaching the required shotcrete quality. For pumped concrete, maximum particle size (Dmax) is 8 mm water / cement ratio must be lower than 0,48. Suitable plasticizer should be used. Fresh concrete temperature should be over 15 °C.

Compatibility with Other Admixtures

ARSTEP SHOT SERIES products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Zero Series

Packaging

- 250 kg drum
- 1000 kg container

CE
2055 CPR-038

Storage and Shelf Life

Shelf life is 6 months if stored in original unopened IBC tank or barrel packaging. In case of storage in bulk, it is 1 year provided that a circulation pump is used in the tank made of stainless steel.

Packaged products must be shaken before use.

If waiting for a long time, before using the product homogeneous by agitating, stirring or circulation pump make it.

It cannot be stored in normal sheet containers.

Do not use soft steel tanks.

In case of storage in large volume tanks, a circulation system is required. If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET SHOT SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET SHOT
- ARSET SHOT AF

ARSET

ARSET STOP ASR

Alkali-Slica Reaction Controlling Admixture

Product Description

ARSET STOP ASR is a chemical additive developed to prevent and control the Alkali-Silica Reaction (ASR) that may occur in concretes containing reactive aggregate.

TECHNICAL PROPERTIES	
Chemical Base	Lithium based
Color / Appearance	Light brown liquid
pH	4,00 - 4,00
Density	1,20 ± 0,03 g/cm3
Chlorine Content (%)	<0,1 (EN 480-10)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Stop ASR	ASTM C 494 Type S

Advantages

- It does not adversely affect the wet and hardened properties of concrete.
- It does not damage the steel reinforcement.
- It does not contain chlorine.
- It allows the use of regional aggregates.
- It extends the life of concrete.
- Compatible with concrete additives

Areas of Use

- In concretes containing high alkali cement and highly reactive alkali aggregate
- On bridges and highways
- At airports
- In water structures such as dams and harbors
- In industrial buildings

Terms of Use

Alkali-Silica Reaction (ASR) is a reaction in concrete between alkali hydroxides coming from components and certain types of aggregates. The alkali hydroxides in the pore water of the concrete react with the silica coming from the aggregate to form alkaline silica gel. This gel expands as it comes into contact with water and creates tensile pressure in the concrete. Cracks occur in the concrete due to this pressure. When **ARSET STOP ASR** is added to concrete, it prevents the alkali-silica reaction and protects the concrete against cracking.

Consumption Dosage

The dosage of **ARSTEP STOP ASR** varies according to the alkali amount of the concrete components and the activity.
Example calculation:

- The alkali amount of the cement is determined.
- ARTEP STOP ASR is taken as 5.50 kg per kg alkali-silica.

In cement with 0.5% alkali rate;
The alkali amount is converted to decimal value and multiplied by the cement dosage in the concrete.
Cement dosage for 300 kg: 0.005 x 300 kg = 1.5 kg Alkali amount in concrete: 1.5 kg x 5.50 kg = 8.25 kg ARSET STOP ASR / m^3 concrete

Method of Application

ARSTEP STOP ASR is added to the concrete mixture after 70% of the mixing water is used.
Since **ARSET STOP ASR** contains water and the addition of admixture will increase the total concrete water / cement ratio, the concrete mixture water should be reduced in the ready mixed concrete plant and the mixture design should be done accordingly.

Compatibility with Other Admixtures

ARSTEP STOP ASR can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Some subsidence may occur during long-term storage. In this case, the product can be used by filtering.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET STOP ASR** is not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

ARSET

ARSET CORROSTOP

Corrosion Inhibiting Admixture

Product Description

ARSET CORROSTOP is an additive material consisting of organic and inorganic materials that slows down the formation of corrosion in the reinforcement in concrete. Thanks to the efficiency of the components in the additive material, the molecules dissipate and cover the pores in the concrete, at the same time they form a protective layer that prevents corrosion by covering the steel reinforcement. Depending on the structure of the concrete, it shows properties that slow down or prevent corrosion.

TECHNICAL PROPERTIES	
Chemical Base	Calcium nitrite based
Color / Appearance	Light yellow liquid
pH	4,00 - 7,00
Density	1,22 ± 0,03 g/cm3
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Corrostop	ASTM C 494 Type C

Advantages

- Extends the life of concrete.
- It extends the life of the reinforcement by preventing aggressive chemicals and moisture that may damage the steel reinforcement.
- It does not contain chlorine.

Areas of Use

- In all types of reinforced concrete
- In precast concrete
- In prestressed concretes
- In foundation concretes
- In retaining walls
- In parking lots
- In bridges and tunnels
- In marine structures
- In concrete that will be affected by aggressive environments

Terms of Use

In order for the concrete to be protected against corrosion by using **ARSET CORROSTOP** to be successful, the following issues should be considered;

- It should have a low water / cement ratio.
- There should be sufficient concrete thickness around the reinforcement.
- The chlorine content in the concrete should be low.
- Concrete should be well placed and compacted.

ARSET CORROSTOP can act as a set accelerator in concrete. Therefore, trials should be done before use, especially in hot weather, it may be necessary to reinforce with set retarding additives to prevent slump loss.
When used at high rates, it can reduce the amount of air in the concrete at a small rate. Therefore, the use of additional air entraining additives may be required.

Consumption Dosage

It is used at a rate of 2.0 - 6.0% of the total amount of binder. Optimum utilization rate should be determined according to laboratory trials.

Method of Application

ARSTEP CORROSTOP is added to the concrete mixture after 70% of the mixing water is used.
Since **ARSET CORROSTOP** contains water and the addition of admixture will increase the total concrete water / cement ratio, the concrete mixture water should be reduced in the ready-mixed concrete plant and the mixture design should be done accordingly.

Compatibility with Other Admixtures

ARSTEP CORROSTOP can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series admixtures
- Arset Air Series
- Arset Doz Series
- Arset Retard Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Some subsidence may occur during long-term storage. In this case, the product can be used by filtering.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET CORROSTOP** is not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

ARSET

ARSET PUMP

Pumping Aid

Product Description

ARSET PUMP is a chemical additive that provides easy and uninterrupted pumping of concrete.

TECHNICAL PROPERTIES	
Chemical Base	Inorganic material
Color / Appearance	Light cream liquid
pH	4,00 - 7,00
Density	1,10 ± 0,02 g/cm3
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Pump	TS EN 934-2

Advantages

- It provides a continuous and homogeneous concrete.
- It enables the concrete to be pumped horizontally and vertically over long distances.
- It prevents the abrasion of concrete pumps and pipes.
- It does not have a negative effect on the properties of concrete.
- It does not contain chlorine.

Areas of Use

- For lubrication of the pumping line before pumping in all kinds of concrete
- Concrete mixes that are not suitable for pumping, do not have suitable granulometry, have low thin material ratios, have the risk of segregation, and cause high pressure

Terms of Use

ARSET PUMP is added to the concrete mixture after the addition of water in the plant or into the ready mixed concrete in the transmixer at the construction site. It should not be added to the dry concrete mixture in the plant. Preliminary trials must be made in determining the dosage of additives.
ARSET PUMP is generally compatible with all kinds of concrete additives. However, when used with naphthalene sulphonate-based concrete additives, the setting process and compliance should be observed.

Consumption Dosage

In concrete that is difficult to pump; Average 0.2 - 0.4% of cement weight
To reduce the pump pressure; Average 0.5 - 1.0% of cement weight
By evacuating into the pump inlet chamber; Average 2.0 - 4.0% of cement weight

Method of Application

- **As a concrete additive in the concrete mixture in the plant;**
  ARSET PUMP is added to the aggregate cement mixture after the water is added in the plant.
  The material shows its effect after 2-3 minutes of concrete mixing.
- **As a concrete admixture, in the ready mixed concrete mixture in the transmixer at the construction site;**
  It is added to the ready-mixed concrete in the truck mixer and mixed for 2-3 minutes.
- **By evacuating into the pump inlet chamber;**
  ARSET PUMP is diluted with water at an average ratio of 1: 1 and poured into the concrete inlet chamber of the pump.
  The concrete pump runs idle for a few minutes.
  When the water in the line is drained, the pump is ready for use.

Compatibility with Other Admixtures

ARSTEP PUMP can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Doz Series
- Arset Friz Series
- Arset Fast Series
- Arset Retard Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Some subsidence may occur during long-term storage. In this case, the product can be used by filtering.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET PUMP** is not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

ARSET

ARSET VISCO

Underwater Concrete Admixtures

Product Description

ARSET VISCO is a liquid concrete admixture designed for use in underwater concrete pouring.

TECHNICAL PROPERTIES	
Chemical Base	Cellulose based
Color / Appearance	Homogeneous viscous liquid
Chlorine Content (%)	<0,1 (EN 480-10)
Alkaline Content (%)	<10,0 (EN 480-12)
Corrosion Behavior	Contains only components according EN 934-1 Annex A.1
Dangerous Substances	Comply with annex AZ

COMPLIANCE WITH STANDARDS	
Arset Visco	TS EN 934-2

Advantages

- **ARSET VISCO** admixture improves the viscosity of the concrete when used in concrete, prevents the cement and other fine components in the concrete from being washed away from the concrete, and ensures that a concrete that does not segregate in the water and does not dissociate in the water is prevented from penetrating into the concrete mass.
- The use of **ARSET VISCO** when compared to an unused admixture concrete results since it reduces the strength of the concrete that is poured outdoors, but there is in an increase in strength in the concrete poured underwater, because it is also prevents washing and decomposition of the cement-mineral additive-fine aggregate.
- The use of **ARSET VISCO** admixture does not change the workability time of the concrete in the short time (~ 45-60 minutes).
- A trial should be made for a longer period.
- The use of **ARSET VISCO** admixtures does not change the concrete normal setting time.
- The chemicals it contains do not damage the fittings.
- The chemicals it contains are alkaline resistant.
- Can be used in fresh and saltwater environments.
- Ensures good adhesion of cement and aggregate components in concrete.
- Provides a well-pumpable, non-segregating, non-dissipating concrete.
- Increases resistance to chemicals.
- Provides impermeability in concrete.
- Do not contain chloride or any other components that result in corrosion in the reinforcements. Therefore, it is suitable for use in reinforced concrete structures.

Areas of Use

- For obtaining concrete that does not decompose in underwater castings
- As an additive in injection and grouting mortars

Terms of Use

- Use with naphthalene sulfonate-based additives is not suitable.
- Cement CEM I 42.5 and its dosage should be at least 360 kg.
- The water / cement ratio should be between 0.40 and 0.45.
- High performance, low water / cement ratio concrete and suitable high water reducer to achieve the required slump (18-25 cm), hyper plasticiser (DEGASET SERİES) should be used.
- Air entraining additives may be used in the range of 4.0-6.0%.
- Aggregate Dmax 16 mm past, fine aggregate, it should be 50-60%.
- Mineral additive should be used up to 15% of cement.

Consumption Dosage

ARSTEP VISCO is used 0,5-2,0% of total binder. Where water flow is fast, it should be between 1.5-2.0%. It is necessary to test for the correct and optimum ratio.

Method of Application

Ready-mixed concrete plant: It is added to concrete components like traditional concrete admixture.
Usage in the truck mixer on the construction site: While turning the truck mixer, slowly add the **ARSET VISCO** mixture onto the ready-mixed concrete in the truck mixer and mix for at least 5 minutes before pouring the concrete.

Compatibility with Other Admixtures

ARSTEP VISCO products can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arstep / Arstep Extra / Degaset Series Admixtures
- Arset Air Series
- Arset Zero Series

Packaging

- 30 kg plastic drum
- 250 kg drum
- 1000 kg container

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze. If the product freezes, it should be thawed by keeping it at room temperature without using direct heat and mixed by mechanical methods until it becomes homogeneous.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET VİSCO** is not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

ARSET

ARSET REMOVER Series

Concrete Remover Chemicals

Product Description

ARSET REMOVER SERIES products are an agent to prevent concrete residues to stick on the outer surface of concrete pumps and truck mixers and also remove the existing concrete residues that has already hardened.

TECHNICAL PROPERTIES			
Chemical Base	Acid based	**Color / Appearance**	Homogeneous liquid

Advantages

- Does not damage the surface, inner and outer appearance of the materials to be used.
- Cleans dirt and rust. Does not discolor the dyes.
- Cleans the clogging resulting from concrete wastes.

Areas of Use

- At the servicing of concrete pumps before starting or after finishing work
- At the servicing of truck mixers before starting or after finishing work
- For the cleaning of concrete pumps and truck mixers
- For the servicing and protection of cement silos
- For the cleaning ceramic, granite, natural stones

Terms of Use

- In case of cleaning thin sheet metals and thin iron materials, it is necessary to dilute 1/5 ratio.
- Please use gloves and goggles during application and avoid contact with skin. Please read the Safety Data Sheet (SDS).

Method of Application

ARSET REMOWER SERIES products are ready-to-use. It is applied on the surface by means of a suitable brush. The brush is pushed on the surface that will be cleaned. It can be applied more than single layer depending on the condition of the surface. 15 minutes after finishing the application, the surface should be washed by water thoroughly. Contaminated water should be avoided to spill around.
It can be applying only a single layer on the clean surface if it will be used in order to prevent concrete to stick on it.
It is recommended to use protective clothes, gloves, glasses while applying the material.

Packaging

- 30 kg plastic drum

Storage and Shelf Life

Shelf life is 12 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET REMOVER SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET REMOVER (ARSET REMOVER L)
- ARSET REMOVER CONS (ARSET REMOVER)

* In case of name change, the previous name of the product is shown in parenthesis.

ARSTEP LUB Series

Mould Releasing Agents

Product Description

ARSET LUB SERIES products are a mineral oil based, mold release agent that provides easy separation of the molds from concrete and creates smooth concrete surfaces.

TECHNICAL PROPERTIES			
Chemical Base	Mineral oil based	**Color / Appearance**	Homogeneous liquid

Advantages

- It enables easy and fast separation of the mold from concrete.
- Provides easy cleaning of formwork.
- Provides smooth and clean concrete surface.
- Does not leave any stain on the formwork.
- Extends the life of the formwork.
- Prevents stains on formwork.
- Protects steel molds against corrosion.
- **ARSET LUB SERIES** products are solvent- free.

Areas of Use

- Specially recommended for steel formwork.
- It can also be used for other mold systems such as plastic and plywood formworks.

Consumption Dosage

The consumption varies depending on the condition, surface, type and separation method of the mold.

Method of Application

- The molds should be properly cleaned prior to using. Molds should be free from water and dust.
- It should be stirred thoroughly before application. It should be applied by spraying or with brush-roller.
- It can be applied in one or two layers depending on the condition of the mold.
- Concrete should not be poured immediately into a newly greased mold; please wait for at least 3 hours.
- Pay attention to the formation of ponding on horizontal surfaces.

Packaging

- 30 kg plastic drum
- 180 kg drum

Storage and Shelf Life

Shelf life is 24 months from the date of production when stored in original unopened and undamaged packages (drums, barrels, IBC containers) at temperatures between +5 °C and +35 °C, protecting from direct sunlight, excessive heat and frost.

If the product has waited for a long time, make it homogeneous by mixing slowly at low speed with mechanical methods before using the product.

Make sure that the product does not freeze.

Safety Measures

Use protective clothes, gloves, glasses and mask compatible with health and safety regulations during the application. Avoid direct contact with eyes and skin during storing and application, in case of contact wash off thoroughly with soap and water, if ingested seek medical attention immediately. Store away from all foodstuffs. Keep away from children. **ARSET LUB SERIES** products are not flammable. For detailed safety information please consult the product's Safety Data Sheet (SDS).

Products of Series

- ARSET LUB 10
- ARSET LUB 20

YAPICHEM

You can see detailed information about our products
by clicking on the brand logos or by scanning the QR codes.

Concrete Additives	Concrete Additives	Special Concrete Additives and Complementary Products	Cement Additives	Construction Chemicals
ARSTEP	DEGASET	ARSET	ARCEM	YAPIFINE

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