

# ARSTEP EXTRA 445

## HIGH RANGE WATER REDUCING / SUPER PLASTICIZING CONCRETE ADMIXTURE

### Product Description

**ARSTEP EXTRA 445** is a high range water reducing, super plasticizer that decreases water/cement ratio to increase workability and mechanical properties of concrete.

### Technical Properties

Chemical Base	Polymer based
Color, Appearance	Brown Liquid
pH value	6-10
Density	1,18 ± 0,03 g/cm <sup>3</sup>
Chlorine Content (%)	<0,1 (TS EN 445-10)
Alkaline Content (%)	<10 (TS EN 445-12)
Compliance with Standards	ASTM C 494 Type F TS-EN 934-2 Table 3.1 and 3.2 Ministry of Public Works Position. No: 04.613/1-A3

### Advantages

- Increases ultimate strength of concrete.
- Improves workability of the concrete.
- Decreases risk of segregation.
- Provides smooth surface finish for concrete in the formwork without any segregation.
- **ARSTEP EXTRA 445** is chloride free.

### Area of Use

- Ready mixed concrete production
- Production of various types of concrete such as reinforced, unreinforced, light or normal concrete
- Large scale concrete projects
- Concrete production with or without pump

### Consumption Dosage

**ARSTEP EXTRA 445** is used 0,9-1,3% of total binder weight.

### 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 445** should be added into the rest of water and should be mixed properly.

### Compatibility with other admixtures

**ARSTEP EXTRA 445** can be combined with the following admixtures. Laboratory tests should be carried out before use.

- Arset Air
- Arset Friz
- Arset Proof
- Arset Doz

### Packaging

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

### Storage and Shelf Life

Must be stored at temperatures between +5°C and +35°C. Under proper storing conditions, the product's shelf life is 12 months from production date if kept in original packaging unopened and undamaged. Packaged products must be shaken before use.

### Warning

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

### 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. For detailed safety information please consult the product's Material Safety Data Sheet.

**Responsibility:** The information given in this technical data sheet is based on the applications carried out in our field of production and latest technological developments. **YAPICHEM KİMYA SAN. A.Ş.** is only responsible for the quality of product. **YAPICHEM KİMYA SAN. A.Ş.** cannot be responsible for the results due to the wrong use of the product and/or apart from the written recommendations regarding the area of use and application method. This technical data sheet makes the prior issues void.