



YAPIFINE SECURE® EPOXY 3C

Epoxy Based Grout Mortar

Product Description

Epoxy based, three component, self levelling grout mortar with special gradation quartz aggregate.

TECHNICAL PROPERTIES

Colour	Grey	Compressive Strength	1 day	> 20 N/mm ²
Mixture Ratio	2 / 1 / 12 (Component A / Component B / Component C)		7 days	> 30 N/mm ²
Mixed Product Time Before Use (+20°C)	30 minutes		28 days	> 75 N/mm ²
Service Temperature	Between -15 °C and +90 °C	Adhesive Strength to Concrete		≥ 2 N/mm ²
Application Thickness	min. 4 mm, max. 50 mm	Adhesive Strength to Metal		≥ 3 N/mm ²
Chloride Ion Content	≤ 0.05 %	Restrained Shrinkage / Expansion		≥ 2 N/mm ²
Time Required for Attaining Full Strength	7 days	Elastic Modulus		> 25 Gpa
		Reaction to Fire		Ds2d0

* Hereby technical values and product application instructions are obtained in the wake of tests conducted in environment of +23±2°C temperature with relative humidity of %50±5. Higher temperatures will shorten the time span, while lower temperatures will extend it.

Advantages

- Applied without primer. Perfect adherence to various surfaces such as concrete and steel.
- Non-shrinking.
- High chemical strength.
- High compressive, flexural and tensile strength.
- High abrasive and impact resistance.
- Does not shrink.
- Solvent-free.

Areas of Use

- Indoor and outdoor spaces
- Assembly of heavy duty machinery
- Machinery foundations to be subject to high dynamic loads
- Repairs requiring high strength on beams and pedestals of portals and tower cranes
- Bridge seats
- Fixing of steel columns on foundation
- Repair and protection of underground engineering structures
- Repair of wide cracks on reinforced concrete floorings

Surface Preparation

The surface should be cleaned of all residual materials such as dust, oil, dirt, paint, curing materials, bitumen and other foreign substances that would prevent adhesion. Such materials as mortar and cement residues should be removed. Cracked surfaces should be steepened as much as possible. Reinforcement is required and it must be rust free. If necessary, add new reinforcement.

Preparation of Machine and Its Foundation

Before placing the machine, loose and distorted areas in the concrete should be cleaned and the surfaces to be placed in the grout should be roughened.

The surface must be dry and the bolt and the base surface must be free from foreign substances that will affect the adherence performance of all types of dirt, rust, oil, dust.

Air discharge holes must be drilled in the base plate. After the machine is placed and its position and scale are adjusted, its position should never be changed.

If the adjusting wedges are to be removed later, they should be lightly lubricated to prevent the mortar from sticking.

Preparation of Moulds

The molds must be made of solid material and mounted to withstand the forces they will encounter during the process.

On the side where the grout mortar will be poured, a 5 cm casting space must be left between the edge of the baseplate and the mold. To cause the grout to spread to the grout mortar, the mold height should be considered on the casting side.

To fill the bottom of very large plates, adjust the pressure to spread height up to 1.5 m or use a pump.

It may be necessary to take precautions using such equipment.

The edges of the molds should be without gaps to prevent leakage and pressure loss.



Mixture Preparation

Pour component B into component A. Mix with a low speed electric stirrer (400-600 rpm) until the mixture reaches a completely homogeneous appearance.

Then pour the mixture into a suitable container and slowly and continuously add component C, continue mixing for at least 3 minutes until a homogeneous and smooth mortar is obtained.

Mixture should be aged 2 minutes before pouring for micro air deflation.

Application Information



Repair Applications

Prepared mixture should be applied on the surface with a trowel as 4-50 mm. The maximum application thickness should not exceed 50 mm at a time. Wide surfaces open to the atmosphere, especially hot, dry and windy environments should be protected from external effects for 24- 48 hours.

Grout Applications

If there are other machines to work around the machine to be filled, it should be determined to what extent the vibrations from the environment are transmitted by observing the vibration on the surface of a container of water placed on the baseplate. If necessary, working machines should not be operated for at least 10-12 hours until the grout mortar cures. The prepared grout mortar should be poured on the surface uninterruptedly from one side of the mold, with a thickness of 4-50 mm in one layer. Two-sided casting should be avoided in order to prevent air compression in the mold. To ensure that all the cavities in the mold are filled, placement should be made using a steel wire with a hook, and vibrator should not be used. Wide surfaces open to the atmosphere, especially hot, dry and windy environments should be protected from external effects for 24-48 hours. If the exposed edges are to be broken, it can be broken after connecting the socket and the mortar mold is hard enough to be removed. Setting wedges should not be taken before 2 days. After the machine is put into operation, the looseness of nuts and bolts should be checked and tightened if necessary.

Application Conditions

Blend the product with appropriate mixing drill. Never mix by hand or trowel.

Service and hardening times of epoxy resin-based products depend on ambient and ground temperature. The ideal temperature range is +10°C to +20°C.

Product should be prepared using its components in the given amounts and should not be diluted using solvent or any other extra material. Also, do not add extra aggregate or filler.

The final consumption amount might vary depending on application conditions and surface characteristics.

Packaging

■ Tin set of 15 kg (A:12 +B:2+ C:1)

Consumption

1 mm thickness approximately corresponds to 2 kg/m².

Storage and Shelf Life

The shelf life of the product is 18 months when it is stored on wooden pallets in a cool, dry and moisture free environment with an ambient temperature between +10°C and +25°C.

For long-term storage cases, the palettes shouldn't be stacked on top of each other.

Opened packages should be stored with sealed up and they should be consumed within a week.

Safety Precautions

The application area should be well-ventilated.

The operator should be wearing proper work attire, goggles, mask and protective gloves appropriate to work and worker safety regulations.

In case of contact with the eyes or accidental ingestion of the product seek immediate medical attention.

Rinse with plenty of water in case of contact with the skin.

Since it is cement based, do not breathe the powder.

For further information on the safe handling of this product please read the Safety Data Sheet (SDS).