

# EPOCRETE XP

## Fast Setting High Early Strength Epoxy Grout

### Description:

EPOCRETE XP is a superior performance, solvent free, fast setting, high early strength epoxy resin grout formulated for grouting of gaps with widths from 10 to 250 mm. It is design to take loads in 4 hours at normal ambient temperature. It provides excellent early and ultimate strengths and is resistant to common chemicals and fluids.

EPOCRETE XP is mainly design for very fast turn-around precision grouting with superior flowability, high early strength, for use where physical properties, mechanical strength, high bearing and chemical resistance of the hardened grout are of utmost importance.

### Uses:

EPOCRETE is suitable for a wide range of heavy duty applications including:

- Compressors, pumps, motors, mill housings, plant shutdowns, anchor bolts and chemical plants.
- Under plate grouting to structural elements and heavy machinery, equipment.
- Pile cap head treatment and waterproofing sealing.
- Equipment bases where chemical and acid spillage occurs.
- Base plate grouting in dynamic load situations such as turbines.
- Heavy industrial applications in steelworks, refineries chemical plants and electroplating works.
- Structural infill repair where very high strength is required.
- Rail track applications, to support heavy cranes.

### Advantages:

- Extremely high early strengths for minimum shut down time.
- Placement at temperatures as low as -1°C

- Excellent performance. Suitable for a wide range of loading situations including repetitive dynamic loads.
- Non-shrinking with high adhesion to contact surfaces.
- Compressive strengths equal to plain concrete at 20°C within 4 hours.
- Resistant to many chemicals, water, oil, grease and hydraulic fluids.
- Excellent adhesion to substrate. Extremely tough and bonds tenaciously to concrete
- High resistance to dynamic loads, thermal effects and chemical attacks.
- User friendly - simple, full pack mixing to ensure that the performance characteristics are achieved.

### Instructions for Use:

#### Surface Preparation:

All surfaces must be dry, clean, and free from oil, grease, water, paints, dust. Chip, chisel bush hammer, or shotblast surface down to sound concrete. Any oil soaked concrete must be removed.

No separate bonding agent is needed. Concrete surface must be totally dry when the mixed product is poured as wet surface might cause de-bonding between concrete and the grout.

Steel baseplates should be checked for cleanliness before installation over anchor bolts. Remove any oil, rust or dirt. Install plate over anchor bolts and set to proper elevation on shim packs, levelling screws or anchor bolt nuts.

Form around baseplate to give a water tight containment. On one side, a head box should be constructed with the outside form at a 45 degree angle to facilitate pouring of the grout and to develop head pressure for gravity grouting.

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## Mixing:

It is recommended to stir the base resin and the hardener separately for two minutes to ensure that they are blended well. The entire contents of the hardener (part B) should be poured into the base container (part A) and mixed for 2-3 minutes or until a homogeneous mix is achieved. While mixing add slowly component C (filler) and mix for 2 – 3 minutes more until getting a unified color mixture. Do not mix partially under any conditions and do not mix the components manually, in order to ensure proper and complete chemical reaction mix the whole kit. Use a slow speed drill fitted with a suitable paddle for mixing. Proper blending is critical to ensure good and complete curing.

## Application:

The mixed grout should be poured only from one side of the formwork to eliminate the entrapment of air. This can be achieved by pouring the grout across the shortest distance. While pouring, maintain a constant, preferably of at least 15 cm on the side where the grout has been poured. Allow 10 cm clearance between the side of the form and the base plate of the machine

The mixed material must be used within the specified pot life. After some time, the unused material will start to stiffen and should be discarded.

Temperatures will dramatically affect the working time and cure time of EPOCRETE XP. A cold environment will delay set time and extend working time. A warm environment will hasten the curing rate but cut down the working time. Keep all materials as close to 20°C as possible. The maximum temperature for application is 35°C.

Forms may be stripped after the grout has hardened and will not slump away. No further curing procedure is needed.

## Standards:

- ASTM C348, ASTM C882, ASTM C469, ASTM C109

| TECHNICAL PROPERTIES                     |                                |
|------------------------------------------|--------------------------------|
| Color                                    | Grey                           |
| Density                                  | 2.0 kg/lit                     |
| Working Time                             | 25 minutes                     |
| Bond Strength@28 days                    | 18 MPa                         |
| Compressive Strength<br>(Tested at 20°C) |                                |
| 4 hours                                  | 20 MPa                         |
| 12 hours                                 | 60 MPa                         |
| 1 day                                    | 78 MPa                         |
| 3 days                                   | 89 MPa                         |
| 7 days                                   | 100 MPa                        |
| Flexural Strength                        | 29 MPa                         |
| Modulus of Elasticity                    | $2.2 \times 10^4$ MPa          |
| Coefficient of Thermal<br>Expansion      | $23.4 \times 10^{-6}$ mm/mm/°C |
| Chemical Resistance:                     |                                |
| Sulfuric Acid, 15%                       | Excellent                      |
| Hydrochloric Acid, 15%                   | Excellent                      |
| Caustic Soda, 15%                        | Excellent                      |
| MEK                                      | Poor                           |
| Xylene                                   | Good                           |
| Acetic Acid                              | Poor                           |
| Hydraulic Fluid                          | Excellent                      |
| Salt solutions                           | Excellent                      |

\*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

## Storage:

Keep the product in dry, covered conditions at 25°C.

## Packaging:

The product supplied in 3 kits containing base, hardener, and filler:

## Shelf Life:

EPOCRETE XP can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

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## Remarks:

- Do not apply where ambient temperatures are below 5°C.
- Variations of temperature may increase or reduce the initial and final setting time of the mortar.
- During the peak temperature of the day in the summer season, working area should be covered if work to be executed externally. Use cold water for mixing and keep all tools and mixer in shaded areas

## Cleaning:

All tools and equipment should be cleaned immediately after use with ARMOSOLVENT. Hardened materials can only be removed mechanically.

## Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapor or spray mist.

## FIRST AID:

- |             |                                                                                     |
|-------------|-------------------------------------------------------------------------------------|
| Eyes:       | In the event of accidental splashes, flush with warm water and seek medical advice. |
| Skin:       | Wash skin thoroughly with soap and water                                            |
| Inhalation: | Remove to fresh air, keep patient rested                                            |
| Ingestion:  | Do not induce vomiting. Seek immediate medical attention.                           |

For further safety information, please refer EPOCRETE XP Material Safety Data Sheet.

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