

# EPO GROUT FINE

Cement Based, Non-Shrink, Precision Grout



## DESCRIPTION

**EPO GROUT FINE** is a ready to use free flow, high strength and non-shrink product in powder form, which requires only the addition of water to produce grout. It is a careful blend of Portland cement, graded sand, water reducing agents and auxiliary expansive modifying agents to compensate for shrinkage in both the plastic and the hardened states.

## TYPICAL APPLICATIONS

**EPO GROUT FINE** is formulated for a wide range of applications such as:

- Grouting of machinery base plates
- Anchor bolts
- Structural grouting of precast elements
- Grouting of crane rails
- Grouting of bearing plates
- Grouting of cavities, gaps and recesses
- Can be used for structural repairing of damaged concrete for beams and columns in inland and marine environments for thickness up to 100mm

## ADVANTAGES

- **Workability:** Fluid consistency can be pumped or poured through small opening to long distances.
- **Reliability:** Always fresh factory controlled pre-packed mix, eliminates site batching variations.
- **Dual expansion:** Compensation for shrinkage in both plastic and hardened states.
- **Adhesion:** Free flowing consistency ensures full surface contact with existing deteriorated concrete minimizing loss of bond between newly poured grout and existing concrete.
- **Chloride free:** No chlorides are added in the mix.
- **Iron free:** No metallic iron included as this causes deterioration due to rust expansion.

## STANDARD COMPLIANCE

**EPO GROUT FINE** meets or exceeds the test requirements of **ASTM C 1107**.

## PRODUCT DATA

<b>Form</b>	Powder
<b>Color</b>	Grey
<b>Packing</b>	20 Kg Kraft Bag
<b>Consumption</b>	2.0 Kg/m <sup>2</sup> /mm
<b>Layer Thickness</b>	Up to 100mm
<b>Shelf life</b>	12 months, indoor storing non-open packaging under controlled condition
<b>Consistency (Water Ltr/Powder Kg)</b>	
Flowable consistency	2.60 Ltr/20Kg (± 0.20)
Trowelable consistency	2.20 Ltr/20Kg (± 0.20)

## TECHNICAL SPECIFICATION

Test Name	Standard	Average Result
<b>Density</b>	DIN 18555 PART-2	2.30 ± 0.10 Kg/Ltr
<b>Compressive Strength</b> 1 day 7 days 28 days	ASTM C 942	> 40 N/mm <sup>2</sup> > 50 N/mm <sup>2</sup> > 65 N/mm <sup>2</sup>
<b>Flexural Strength</b> 7 days	ASTM C 580	> 15 MPa
<b>Tensile Strength</b> 7 days	ASTM C 307	> 1.5 MPa
<b>Working Time</b>	DIN 18555-PART-8	≈150 min
<b>Setting Time (min):</b> Initial Setting Time Final Setting Time	ASTM C 953	> 180 min < 300 min
<b>Linear Expansion</b>	ASTM C 531	5.3x10 <sup>-6</sup> °C <sup>-1</sup>
<b>Water Absorption</b>	ASTM C 413	< 2.0 %
<b>Chloride content</b>	ASTM C 1218	< 0.1 %
<b>Yield</b>	ASTM C 138	9.8 Ltr/20Kg Bag

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Ver 02/20

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## APPLICATION PROCEDURE

### PREPARATION

The surface on to which the **EPO GROUT FINE** is to be applied should be scabbled to remove laitance and expose aggregate. Do not use brush hammers or similar preparation equipment that can crush the aggregate but leave it in place. The surface must be free with oil, dust, dirt, paint, curing compound etc. Soak area to be grouted with water for 24 hours prior to grouting to minimize localized absorption and to assist in the free flow of the grout. Surface should be damp but free of standing water. Particular attention should be paid to bolt holes to ensure that these are water-free. Use oil free compressed air to blow out bolt holes and pockets as necessary.

Base plates, bolts, etc. must be clean and free of oil, grease, paints residual curing compound or other contaminants that could impair adhesion. Set and align equipment. If shims are to be removed after the grout has set, then lightly grease them for easy removal.

Ensure formwork is secure and watertight to prevent movement and leaking during the placing and curing of the grout. The area should be free of excessive vibration. Shut down adjacent machinery until the grout has hardened.

### TO USE AS CONCRETE REPAIRING

Concrete should be soaked with water to reduce the absorbency prior to application. Mix 20Kg bag **EPO GROUT FINE** with  $2.20 \pm 0.20$  liters of clean water until a smooth paste is obtained. Place the mortar by trowel ensuring that it is well consolidated behind any reinforcing steel. Recommended application thickness is up to 100mm.

### MIXING

The flowable grout is obtained by mixing **EPO GROUT FINE** with clean water at the following dosage:

$2.20 \pm 0.20$  liters water for trowellable consistency

$2.60 \pm 0.20$  liters water to give flowable consistency

The amount of water used depending on the workability required. Avoid bleeding and segregation. Add the powder to the specified amount of water and mix for 3 minutes. Mixing should be carried out in a suitably sized mixing vessel, using a slow speed, heavy duty drill. Do not mix with the other hydraulic binders. The use of other additives is prohibited.

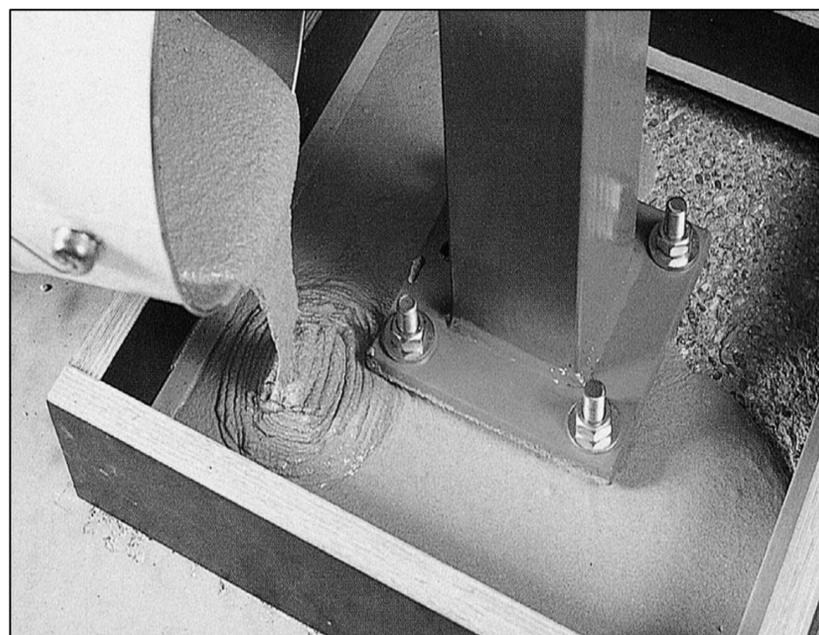
### PLACING

Length of metal strapping laid in the formwork prior to placing may be necessary to assist grout flow over large areas and in compacting and eliminating air pocket. Pour the grout continuously and maintain a constant hydrostatic head of at least 15cm.

On the side where the grout is to be poured, allow 10cm clearance between the side of the form and the base plate of the machine.

On the opposite side allow at least 10cm clearance between the formwork and base plate to allow the grout to flow through without entrapping air. **EPO GROUT FINE** is suitable for use with most type of pumping equipment.

Immediately after placing **EPO GROUT FINE**, cover all exposed grout with clean damp hessian and keep moist until grout is firm enough to accept a curing membrane from our **EPO CURE** range product.



## PRECAUTIONS

**Limitations:** Do not work at  $5^{\circ}\text{C}$  or less. Apply at a thickness up to 100mm. Ensure that the unrestrained area of repair is kept to a minimum.

**Cleaning:** All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage system.

**Protection:** All works must be protected from rain, frost until fully hardened.

**Storage:** Shelf life is 12 months when stored in dry conditions at moderate temperature and humidity.

**Fire resistance:** **EPO GROUT FINE** is not flammable

## HEALTH AND SAFETY

**EPO GROUT FINE** is non-toxic but mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of prolonged irritation, seek medical advice

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