

# Mapepoxy FU

## Grout

### PRODUCT DESCRIPTION

**Mapepoxy FU** is based on a medium viscosity epoxy resin cured with a formulated polyamine.

Curing at +5°C is very slow.

Final strength is achieved once the cure temperature has returned to +15°C.

**Mapepoxy FU** can be accelerated, but the benefits of low exotherm properties and long pot life will then be lost.

### AREA OF USE

**Mapepoxy FU** is an epoxy adhesive with a long pot life and low temperature rise when curing.

Particularly suitable for underplate grouting and as a bedding mortar where heavy loads are encountered, as well as other large volume applications; supports beneath crane rails and baseplate grouting for heavy machinery etc. For use where expanding cement mortar i.e. **Nonset** does not meet the requirements.

**Mapepoxy FU** has the advantages of rapid curing, very low shrinkage (no drying shrinkage), high adhesion to concrete and steel, high strength and chemical resistance and good vibration reducing properties.

### DIRECTIONS FOR USE

Crane or machinery tracks should be levelled up and the mixture placed underneath. A second method is to level up and use opposing screws. The crane rails are lifted slightly and the mixture filled to give a slightly raised surface. The rails are then screwed down into the correct position and excess mixture is pressed out and up the sides.

#### **Preparation of concrete and steel**

Concrete surfaces should be clean, dry and sound. Cement laitance must be removed. Sandblasting, milling, wheel blasting and pricking up are usual

methods of surface preparation.

Steel surfaces should be prepared by sandblasting or steel brushing and degreased e.g. using trichloroethylene or acetone.

Surfaces should be vacuum cleaned or blown clean of dust before placement.

#### **Mixing**

The components (i.e. comp. A, B and special sand), should be approx. 20°C before mixing.

Mix comp. A and comp. B together using a slow, powerful drill with whisk attachment for 3 - 4 minutes.

Add filler (special sand) and mix thoroughly. If using partial quantities, the resin and hardener must be weighed out in the correct mixing ratio. For large scale work a forced action mixer is required.

#### **Underplate grouting**

The temperature of the concrete or steel should be at least +15°C.

If there are no natural limitation in the concrete foundation leakproof formwork must be constructed around the foundation so the mixture does not flow out. The surfaces of the forms must be smooth, acrylic plates are ideal. Grease forms using conventional form oil to prevent cured epoxy from sticking. Pour the fresh mixture in from one side (to avoid trapping pockets of air). The mixture flows underneath but filling should be assisted e.g. by using a reinforcing bar, a piece of wood or vibrator. Fill the epoxy mortar to a slightly raised surface.

#### **Cleaning**

Clean tools and machinery immediately after use with **Tynner**. Cured product is difficult to remove.

### SAFETY INSTRUCTIONS

For health, safety and environmental information, see separate safety datasheet at **www.mapei.com**

### WARNING

*The technical recommendations and details given in this description represent our present knowledge and experience of the products. All the above information must nevertheless be treated as advisory and subject to due consideration.*

*Any person using the product must satisfy himself in advance that the product is suitable for the intended use.*

*Users will themselves be responsible if the product is used for other than the recommended purposes or is used incorrectly.*

*All deliveries from Mapei AS are made in accordance with the sale and delivery conditions applicable at the time, and these conditions are taken to be accepted on placement of an order.*

#### **Manufacturer:**

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TECHNICAL SPECIFICATIONS			
	<b>Mapepoxy FU</b>		<b>Mapepoxy FU:</b> 0-5 mm sand 1:3,7
Specific weight:	1,1		
Viscosity at/ +20°C:	Approx. 600cP		
Pot life at/ +20°C, 10 kg set:	40 min.		2 hours
Cure time at/ +5°C:	3 days		7 days
Cure time at/ +20°C:	6,5 hours		7 days
Heat generation during curing (10 l volume):	210°C		70°C
E-modulus (compression) at/ +20°C:			Approx. 17 000 Mpa
Elongation at break at/+20°C:			Approx. 1%
Linear exothermic coefficient:			27 x 10 <sup>3</sup> mm/m pr.°C
Specific weight:	2.0 g/cm <sup>3</sup>		
Shear strenght on steel:			Approx. 20 Mpa
Shear strenght on bonded concrete after 16 hours curing at/ +20°C:			8 Mpa (100% cohesive failure within the concrete)
<i>The following data refers to a mortar composition 1 : 3,7 epoxy adhesive: special sand 0-5 mm</i>			
Cure temperture, °C	Cure time	Compressive strength Mpa	Flexural strength Mpa
20	6.5 hours	89	37
20	7 days	108	39
5	3 days	40	10
5	7 days	47	12
Pot life:	50 and 100% accelerated is (filled) 45 and 30 min.		
Packaging:	The components are prepacked in the correct mixing ratios in suitable working sets for a forced action mixer. 1 set consists of 28 kg <b>Mapepoxy FU</b> and 4 bags à 28 kg special sand 0-5 mm (gives approx. 66 l final product).		
Storage:	Stored frost free in unopened packaging, product properties remain unchanged throughout the first 24 months.		

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