

EpoFuga

Epoxy Based, Two Part, Grouting Filling and Ceramic Adhesive Resistant to Chemicals and Bacteria

Material Description

EpoFuga is an epoxy reaction resinbased grouting and adhesion material that can be cleaned with water, easily applied, is resistant to chemicals and bacteria, and used in the adhesion or grouting hole filling of materials like ceramics, marble, granite, antacid ceramics, glass mosaic and glass brick.

Complies with EN 13888-RG class (For grouting hole filling)

Complies with 11140 EN 12004-R2T class (For Ceramic Adhesive)

RG= Reaction resin based grouting filling materials.

R2= Reaction resin based adhesive with developed additional properties

T= Reduced sliding property

Areas of Application

- Indoor and outdoor areas, in vertical and horizontal applications
- In filling the grouting holes of ceramics, marble, granite, antacid ceramics, glass mosaic and glass bricks adhered to existing surfaces.
- In beer, wine and raisin industries,
- In beverage and fruit juice industries,
- In milk, cheese and yogurt industries,
- In tomato paste, pickle and canned food industries,
- In meat and fish industries,
- In medicine, paint, paper, accumulator and manure industries,
- In printing houses, hotel kitchens and laundries, In hospital laboratories, dining halls, wet spaces and hygienic environments,
- In swimming pools and thermal pools,
- Waste water and purification facilities,
- In shopping centers.

Technical Properties		
Structure of The Material EpoFuga Part A EpoFuga Part B	Epoxy Resin Epoxy Hardener	
Color	Grey, White	
Pressure Resistance	$\geq 45 \text{ N/mm}^2$	
Bending Resistance	$\geq 30 \text{ N/mm}^2$	
Rupture Resistance	$\geq 2,5 \text{ N/mm}^2$	
Adhesion Resistance In Cutting	$\geq 2,0 \text{ N/mm}^2$	
Water Absorbion	$\leq 0,1 \text{ gr (after 240 minutes)}$	
Service Temperature	$-20^{\circ}\text{C} +80^{\circ}\text{C}$	
Continuous In Dry Media In Wet Medium	$-20^{\circ}\text{C} +50^{\circ}\text{C}$	
Application Surface Temperature	$+5^{\circ}\text{C} +25^{\circ}\text{C}$	
Open Waiting Duration	~20 minutes	
Usage Duration	~45 minutes	
Sliding	None	
Walkable After	24 hours	
Open to Full Traffic After	7 days	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

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Characteristics and Benefits

- It is resistant to chemicals, acids, alkalis and oils
- It has anti-bacterial properties and it does not compose mildew, fungus and bacteria
- It has high abrasion resistance
- Applied **EpoFuga** does not keep the dirt on it and its after cleaning is easy
- It is suitable for grouting hole widths from 2 mm up to 10 mm
- It is resistant to sudden temperature changes that last for a short period of time
- It is freeze-thaw cycle resistant
- It can be used in contact with drinking water (complies with BS 6920 standards)

Processing Method

(A) Preparation of Substrate

Surface Preparation

Application surface has to be strong, dry, bearing, dustless, clean, and also in balance. Surface must be cleaned off all kinds of oil, grease, rust, and paraffin traces that can weaken adherence and no loose particles must be present. Disordered surface with 5 to 20 mm depth must be repaired with **MasterCrete™ S88 C** repair mortars two days before the application. If the application surface is over +25°C, then it must be moisturized.

Ceramic Application

The surface must be dry and must have taken its resistance for 28 days. A spread thickness of 2 mm must be obtained by using a rake with 4 mm prongs depending on the dimensions of the ceramics and the filling of the interlines must be started the following day.

Preparation of Substrate for Grouting

Before filling antacid ceramics and granite grouting holes, wait for the used adhesive to achieve sufficient hardness. The surface must be cleaned with

methods that will not damage the ceramics just before the application of interline materials.

(B) Mixing

EpoFuga has been packed in the amount that has to be mixed. If only some of the Packaging content is going to be used, a mixture is prepared in the ratio Part A/Part B: 100/4 (by weight). Mix the two parts for at least 3 minutes with a mixer that has a frequency of 400-600 rev/min until a homogeneous mixture is obtained.

Mixing Ratio

EpoFuga	Part A	Part B
Mixture Water	5.00 kg	0.20 kg
Density of Mixture	1,70 kg/l	

(C) Processing

Trowel Application

Spread the **EpoFuga** prepared for the interline application over the application surface and fill it in the grouting holes with a plastic or hard rubber trowel. Skim the excessive material off the grouting holes with diagonal moves. (In deep grouting holes, first wait for the settling of the material and then repeat this procedure). Wait for about 15 to 30 minutes depending on the ambient and surface temperatures, clean the surface with an appropriate sponge and hot detergent containing water with circular moves and give the final shape to the interlines. Change sponges that become dirty during the cleaning.

Gun Application

Fill the **EpoFuga** prepared into the grouting holes with an aperture filled gun. Skim the excessive materials off the grouting holes using a hard rubber trowel with diagonal moves. (In deep grouting holes, first wait for the settling of the material and repeat this procedure.) Wait for about 15 to 30 minutes depending on the ambient and surface temperatures, clean the surface with an appropriate sponge and hot detergent containing water with circular moves and

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give the final shape to the interlines. Change sponges that become dirty during the cleaning.

Consumption

1.70 kg/m² for a thickness of 1 mm adhesive

Ceramic Dimensions	EpoFuga						
	Coverage Table for Epoxy Based Grouting (Depth 8 mm)						
	2 mm (gr/m ²)	3 mm (gr/m ²)	4 mm (gr/m ²)	5 mm (gr/m ²)	6 mm (gr/m ²)	8 mm (gr/m ²)	10 mm (gr/m ²)
10x10	600	900	1200	1500	1800	2400	3000
10x20	500	700	950	1150	1400	1850	2300
15x15	400	600	800	950	1150	1550	1900
15x20	350	550	700	900	1100	1400	1800
20x20	350	500	650	800	1000	1300	1650
20x25	300	450	600	750	900	1200	1500
20x30	300	400	550	700	800	1100	1400
30x30	250	350	450	550	650	900	1100

Point to Consider

- **EpoFuga** must be mixed with mechanical mixers, it must definitely not be mixed with a trowel.
- The working and reaction times of resin based systems depend on the ambient and surface temperatures as well as the relative humidity of the air. The chemical reaction slows down in low temperatures and this elongates the pan life, the duration in which it can be covered and the working time. Since the viscosity ascends at the same time Coverage increases. High temperatures speed up the chemical Reaction and the durations indicated above correspondingly get shorter. In order to have the material complete its regimentation, the ambient and surface temperature must not fall below the allowed minimum temperature.
- Avoid **EpoFuga** application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +5°C or above +25°C. Furthermore no applications should be made in very hot, rainy or windy weather.
- In applications in cold weather, in order to take the machinability of the material to the highest level the Packagings must be made ready for usage by conditioning in +20°C - +25°C.
- Do not add water and/or new material to an **EpoFuga** mixture which has started getting dry under any circumstances.

- 15-30 minutes after the application of the material, the cleaning must be started. The surface cleansing procedure must not be carried out by using sawdust. In order to prevent the leakage of water under the ceramics, the ceramics, installations (entrances and exits of pipes), concrete, grouting holes between the plaster, corner and edge grouting holes in between the ceramics with suitable mastics such as **MasterJoint™ NPIR 474**.

Cleaning of Tools

All the tools and equipments must be cleaned by water after the application. After **EpoFuga** is hardened, it can only be removed from the surface mechanically.

Packaging

5.20 kg (A+B) tin container set

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Storage

Store in an unopened, original container, under dry and cool conditions and protect against frost. For short term storage, do not stack more than 3 pallets on top of each other and dispatch them on a first come-first go basis. Pallets should not be stacked on each other on a long term basis.

Health and Safety

During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the

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affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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