

EPOFUGA®

Mastertile® 700

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

Description of Product

EPOFUGA® is an epoxy reaction resin based 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 TS EN 13888 - RG class (For grouting hole filling)
Complies with TS 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

Fields of Application

- In indoor and outdoor spaces, 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,

Technical Data

Structure of the material EPOFUGA® Component A EPOFUGA® Component B	Epoxy Resin Epoxy Hardener	
Pressure Resistance	> 45 N/mm ²	LX
Bending Resistance	> 30 N/mm ²	
Rupture Resistance :	> 2,50 N/mm ²	
Adhesion Resistance in Cutting	> 2,00 N/mm ²	
Water Absorbtion	< 0,10 gr (after 240 minutes)	
Application Surface Temperature	+10°C +25°C	
Service Temperature:		
Continuous in Dry Media	-20°C +80°C	
In Wet Medium	-20°C +50°C	
Usage Duration	~45 minutes	
Open Waiting Duration	> 20 minutes	
Sliding	None	
Walking Over Duration	24 hours	
Duration for opening to traffic	7 days	

All figures are at +23°C with a relative humidity of 50%. High temperatures cause shorter cure times and vice versa.

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- In swimming pools and thermal pools,
- Waste water and purification facilities,
- In shopping centers.

Features 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)

Application Procedure

Preparation of Substrate

For the Adhesive Make sure that the surfaces are robust, dry, supportive, free of dust, clean and also poise and even. The surface must be cleaned of the remainders of substances like oil, mold separator and paraffin and there must be no loose particles on the surface.

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.

Mixing

EPOFUGA® has been Packagingd 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 Component A / Component B = 100/4 (by weight). Mix the two components for at least 3 minutes with a mixer that has a frequency of 400 - 600 rev/min until a homogeneous mixture is obtained.

Mixing Ratios

EPOFUGA®	Component A	Component B
Mixture Amount	5,00 kg	0,20 kg
Mixture Density	1,70 kg/liter	

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

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containing water with circular moves and give the final shape to the interlines. Change sponges that become dirty during the cleaning.

Cleaning of the Ceramics

Clean the last film membrane on the ceramics 4 to 10 hours after the application with the assistance of an appropriate sponge and hot detergent water by making circular moves and wipe the surface with a final cleaning water into which spirit should be added in a ratio of 10%. **EPOFUGA®** is also suitable for being filled with a planer and being cleaned with felt.

Coverage

1.70 kg/m² for a thickness of 1 mm in the adhesion of ceramics.

Watchpoints

- **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 or above +25. 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.

Ceramic Dimensions	Coverage Table for Epoxy Based Grouting (Depth: 8 mm)						
	Grouting Hole Widths						
	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)
10 x 10	600	900	1200	1500	1800	2400	3000
10 x 20	500	700	950	1150	1400	1850	2300
15 x 15	400	600	800	950	1150	1550	1900
15 x 20	350	550	700	900	1100	1400	1800
20 x 20	350	500	650	800	1000	1300	1650
20 x 25	300	450	600	750	900	1200	1500
20 x 30	300	400	550	700	800	1100	1400
30 x 30	250	350	450	550	650	900	1100

Coverage amounts are theoretical.

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- 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 **Sonolastic® NP 1** ve **SL 1**.

Cleaning of Tools

Used tools and equipment must be cleaned with water after the application. Once cured **EPOFUGA®** can only be removed by mechanical means.

Standard Colors

Bahama Beige	No : 2
White	No : 20
Gray	No : 21

Packaging

5,20 kg (A+B) tin container set

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 palletes on top of each other and dispatch them on a first come - first go basis. Palletes should not be stacked on each other on a long term basis.

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened Packagings should be consumed in one week.

Health and Safety Precautions

It is dangerous to approach storage and application areas with fire. Fresh air should be circulated at storage and application area. The following protective measures should be taken when working with the material: Wear safety gloves, goggles and protective clothing which comply with the Occupational Health and Safety Rules. Because of the irritation effect of the uncured material, component should not come in contact with the skin or eyes. Under such circumstances, the effected area should be washed with plenty of water and soap. If swallowed, seek medical attention immediately. Do not drink or eat at the application site. Keep out of reach of children. Please, refer to the Material Safety Data Sheets for detailed information.

Disclaimer

The technical information and application advice given in this BASF Yapı Kimyasalları San. A.S. publication are based on the present state of our best scientific and practical knowledge. BASF Yapı Kimyasalları San. A.S. is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding place and method of use. This technical form is valid only till the new one is implemented and nullifies the old ones. 01/2008..

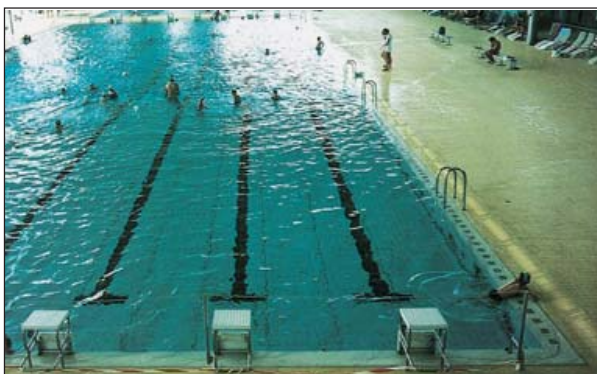
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Table of Resistance to Chemical Substances (It has been tested for 500 hours at +20°C)

Acetond		-	Soda	Up to 50&	+
Acetic Acid	Up to 5%	(+)	Sodium Hypochloride	Concentrated	+
Aluminum chloride	Up to 30%	(+)	Sodium Tiosulfate	Up to 20%	+
Aluminum sulfate	Up to 40%	+	Oxalic Acid	Up to 10%	+
Formic acid	Up to 1%	(+)	Paraffin Oil		+
Ammonia	Concentrated	+	Petroleum Ether		+
Ammonium Chloride	Up to 10%	+	Phosphoric Acid	Up to 50%	(+)
Ammonium Carbonate	Up to 50%	+	Nitric Acid	Up to 10%	+
Ammonium Sulfate	Up to 50%	+	Hydrochloric Acid	Concentrated	+
Barium Chloride	Up to 40%	+	Sulfuric Acid	Up to 70%	+
Boric Acid	Up to 10 %	+	Silicone Oil		+
Brine		+	Cooking Oil		+
Buthanol		+	Olive Oil		+
Calcium Chloride	Up to 40%	+	Turpentine Oil		+
Calcium Hydroxide	Up to 20 %	+	Tartaric Acid	Up to 25%	+
Calcium Nitrate	Up to 50%	+	Sitric Acid	Up to 10%	+
Ferric Sulfate	Up to 30%	+	Zinc Chloride	Up to 50%	+
Acid Acetate	Up to 50%	+	Waters that corrupt concrete		+
Fuel Oil		+	Beer		+
Isopropyl Alcohol		+	Coca Cola		+
Potassium Carbonate	Up to 20%	+	Dibutilftalat		+
Potassium Permanganate	Up to 5%	+	Jet Fuel IP4		+
Salt Water	Saturated	+	Glycerin		+
Copper Sulfate	Up to 15 %	+	Hydrogen Peroxide	Up to 33%	(+)
Lactic Acid	Up to 10 %	(+)			

+ Resistant, (+) Short Term Resistant, - Not Resistant



COVERAGE TABLES

Ceramics Dimensions	Ceramics Rake Prong Size	Mortar Bedding Thickness
Small mosaics	4 mm	~1 - 2 mm
Up to 15 cm x 15 cm	6 mm	~2 - 3 mm
Up to 30 cm x 30 cm	8 mm	~3 mm
Larger than 30 cm x 30 cm	10 mm	~4 mm

COVERAGE TABLE

Product Name	Mixture Density (kg/liter)	1 mm/m ² Powder Coverage (kg)	Mixture Water Amount (liter)	Ceramics Rake Prong Size and Coverages (kg/m ²)			
				4 mm	6 mm	8 mm	10 mm
Bikolit[®]	1,70	1,70	-	3,40	5,10	-	-
Bikolit[®]	5 kg	1,70	-	3,40	5,10	-	-
Seryap Harcı[®] 130	25 kg	1,61	6,75	-	3,80	5,07	6,34
Seryap Harcı[®] 132	25 kg	1,62	5,50	-	-	5,31	6,64
Fleksmörtel[®]	25 kg	1,57	7,00	-	3,68	4,91	6,13
Ultrafleks[®]	15 kg	1,30	9,00	1,63	2,44	3,25	4,06
Polyflott[®]	20 kg	1,75	4,60	-	-	5,69	7,11
Polyflott[®] Rapid	20 kg	1,90	4,00	-	-	6,33	7,92

The Coverages above are given theoretically for even surfaces according to the application method performed with a rake. When a skimming layer is made on the adhesion surface, the Coverages will increase by 20 - 25%.

Special Conditions

- **Seryap Mix[®] 132** must be used in the adhesion of ceramics thicker than 12 mm in long and wide spaces such as factories.
- In order for white or light coloured ceramics and marbles not to change their colour over time, **Seryap Mix[®] 130 White**, **Fleksmörtel[®] White** or **Seryap Mix[®] 132 White** should be used.
- It is recommended that **Seryap[®]** adhesion mortars are mixed with **Lastofleks[®]** in adhesions to exterior facades, granite ceramics or natural stone overlays, floor heated pavements, renewal works, or in the adhesion of ceramics over ceramics.
- Under circumstances when it is difficult to audit the operations above, in the pconstruction site, **Fleksmörtel[®]** or **Ultrafleks[®]** should be used.
- **Bikolit[®]** must be used for water absorbing surfaces like gypsum, gypsum-plaster and plasterboard or **Fleksmörtel[®]** or **Ultrafleks[®]** must be used 24 hours after the **Astar (Primer)A[®]** application