



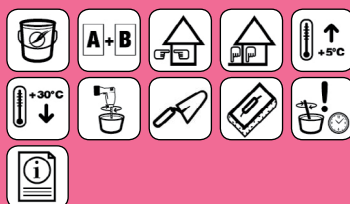
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## FUGASTYLE® EPOX SUPER

High chemical resistance anti-mould colored epoxy grout for tiles and mosaics joints from 2 mm to 15 mm, also useable as tile adhesive.

Classification RG and R2T



### Product description

FUGASTYLE® EPOX SUPER is a colored two-component grout, characterized by high chemical and mechanical resistance, based on epoxy resin, siliceous aggregates and special fillers, specifically designed for grouting and affixing ceramic tiles and mosaics. Applied on a tiled surface, it fills the joints of mosaics and tiles and creates a grouting mortar that chemically resists aggression and sunlight.

After the two components have been mixed, it becomes a light and very soft mortar, easy to spread capable of effortlessly filling joints between 2 mm and 15 mm wide. It is easily removable from tiles while in the plastic phase and it will not leave any halos or residue behind. In order to help the final cleaning of the surface, as indicated below, FUGASTYLE® EPOX SPLENDOR shall be used.

FUGASTYLE® EPOX SUPER meets the requirements of both EN 13888 (reactive mortar for joints of class RG) and EN 12004 (improved reactive resin adhesive with no vertical slip class R2T).

### Features

- easily applied even on very narrow tile joints;
- very easy cleanability during the application phase;
- once fully cured, the product shows high mechanical strength and chemical properties;
- color stability and low tendency to yellowing;
- mechanical stability and absence of shrinkage or cracks;
- considerable resistance to acids, alkalis and food stains according to UNI EN 12720;

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- resistance to both mould attack and growth, according to UNI 11021;
- smoothability in the laying phase when used as an adhesive;
- reduced vertical slip when used as an adhesive;
- no shrinking occurs during the cross linking phase (no risk of either cracks or fissures);
- allows the realization of chemical resistant and aesthetically valuable joints characterized by vivid, UV-resistant and weatherproof colours;
- adheres to all most common building substrates.

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## Fields of use

FUGASTYLE® EPOX SUPER is used as an adhesive/sealant for mosaic and ceramic tile coatings requiring high resistance to both chemical agents and acid/alkaline wash as well as high hygienic standards, e.g.:

- swimming pools and fountains with fresh, hot spring and brackish water;
- floors and coatings of bathrooms and showers;
- floors and walls coatings of kitchens and canteens of workplaces, hospitals and hotels, etc;
- floors and walls coatings of breweries, canneries, wineries, slaughterhouses, etc;
- basins and floors of water treatment plants;
- tables, walls and floors of laboratories.

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## Fornitura e stoccaggio

FUGASTYLE® EPOX SUPER is available in convenient buckets containing the two separate and pre-dosed components for a total of 2 kg (comp. A + comp. B), or 5 kg (comp. A + comp. B). Store in a cool, dry and non-ventilated place. Keep the packaging intact.

FUGASTYLE® EPOX SUPER is preserved 24 months in original packaging, in a covered, dry place at temperatures between +10°C to +35°C

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## Support preparation

All joints that have to be filled with FUGASTYLE® EPOX SUPER must be checked to ensure they are well cleaned. If not, proceed with the removal of all those substances that may prevent the adhesion such as oils, grease, dust, cement, cement glue residue, etc.

Sealing should be done only after the adhesive used in tiles installation has cured.

Joints must not be wetted before applying FUGASTYLE® EPOX SUPER. Do not apply on wet joints.

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## Application

FUGASTYLE® EPOX SUPER is supplied in buckets that contain both component A (in the bucket) and component B (in a tri-layer envelope).

Cut one side of the envelope of component B and pour the entire contents into component A. Mix using a low speed mechanical mixer until obtaining a homogeneous mixture. Scrape the edge of the bucket with a metal or plastic spatula and then re-homogenize the product with a mechanical mixer. It is not advisable to mix the product by hand.

FUGASTYLE® EPOX SUPER is a reactive patch / adhesive whose mixture pot life depends strongly on the temperature of the working environment.

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Operating temperature	Mix (pot-life)*
8°C	2 hrs
15°C	1 hrs 20 min
20°C	50 min
26°C	20 min
35°C	12 min

\* The mixture pot life was determined considering the whole 2.00 kg (A+B) pack by evaluating the applicability of the mix under real-life environmental conditions.

## Use as a glue

Spread on the surface with a steel trowel with the smooth part to produce a good wetting of the laying surface, then adjust with the toothed part. Proceed to the laying of the material.

## Execution of grouting works - floor

Pour the product onto the tiles and working it into the joints until they are completely filled, with a rubber float, all excess material shall be removed by moving the spatula, held inclined toward the surface and then proceed with the cleaning.

## Execution of grouting works - wall

Pour the product on a rubber float with the help of a trowel and then carefully clogging the wall's joints. All excess material shall be removed by moving the spatula, held inclined toward the surface and then proceed with the cleaning.

## Cleaning and finishing the surface

### Preliminary cleaning

grout residue shall be removed with a white abrasive pad soaked with water and kept clean by frequently rinsing. For best results, make use of the appropriate handle with Velcro® pad-holder exerting a light pressure in a circular motion (see FUGASTYLE® EPOX SPLENDOR Technical Data Sheet) so as not to excessively empty the joints;

The preliminary cleaning with the abrasive pad should be done when the consistency of the grouting mortar will be enough to prevent the joint from emptying. For this purpose, we recommend the following waiting times at 23 °C and 50% RH.

Type of tile and joint	Recommended waiting time for preliminary cleaning	Maximum waiting time for preliminary cleaning
Mosaic or tiles with a joint < 3 mm	20-40 min	40-100 min
Wide joint	45-60 min	60-100 min

## Removing the foam

the friction of the surface produces a significant amount of foam that must be removed using an oval cellulose sponge soaked in water and frequently rinsed. During this phase it is important not to "excave" the joints that have just been done.

## Finishing

After removing the foam, proceed with finishing the grout by spraying FUGASTYLE® EPOX SPLENDOR directly on the surface using the appropriate dispenser and wipe the same surface with the cellulose sponge once you have rinsed it. It is important to carefully finish the grout since it is at this stage that the joint will be given its final form. When the sponge gets the typical greasy and oily appearance, due to the excessive accumulation of epoxy resin, replace it; The time that must elapse between the first wash with abrasive pad and the

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finishing with cellulose sponge is variable as a function of the working temperature, the width of the joint and the type of tile.

Type of tile and joint	Recommended waiting time for finishing (after grouting application)	Maximum waiting time for finishing (after application of grouting)
Mosaic or tiles with joint < 3 mm	1 hrs	3 hrs
Wide joint	6 hrs	8 hrs

To keep your tools clean, simply frequently rinse with clean water; Using FUGASTYLE® EPOX SPLENDOR makes halos removal easier.

If some halos remain on the grouted surface or if the reshaping of some of the joints is required, FUGASTYLE® EPOX SPLENDOR and the cellulose sponge can be used again within 6 hours at 23°C from the execution of the first wash.

## Curing time

FUGASTYLE® EPOX SUPER curing time depends on the environmental conditions.

Curing conditions	Pedestrian trafficability*	Complete cure**
8°C; 70% RH	48 hrs	7 days
15°C; 70% RH	24 hrs	5 days
20°C; 50% RH	20 hrs	4 days
26°C; 50% RH	18 hrs	4 days
35°C; 50% RH	15 hrs	3 days

\* "Pedestrian trafficability" refers to the possibility of walking on the floor without placing on its surface any load and implies that the final mechanical resistance has not yet been achieved.

\*\* "Complete cure" refers to the possibility to place loads on the surface and implies that the final mechanical resistance has been achieved.

If temperature and humidity levels in workplaces are not optimal (in cold and wet conditions) and when the temperature can not be controlled, it is advisable to prolong both the time needed to allow pedestrian traffic over the coating as well as the downtime needed to allow FUGASTYLE® EPOX SUPER to fully cure.

## Consumption

Consumption can be estimated with the following formula:

$$A \times B \times (C + D) / (C \times D) \times 1,40 = \text{kg/m}^2$$

A: joint width (mm)

B: tile thickness (mm)

C: tile length (mm)

D: tile width (mm)

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Tile size (mm) C x D x B	A - joint width (mm)									
	1,5	3	4	5	6	8	10	12	15	
	<b>theoretical consumption kg/m<sup>2</sup></b>									
10 x 10 x 0,6	0,25	0,50								
20 x 20 x 2	0,42	0,84								
20 x 20 x 4	0,84	1,68								
75 x 75 x 4	0,22	0,45	0,60	0,75	0,90					
75 x 75 x 6	0,34	0,67	0,90	1,12	1,34					
100 x 100 x 10	0,42	0,84	1,12	1,40	1,68	2,24	2,80			
150 x 150 x 6	0,17	0,34	0,45	0,56	0,67	0,90	1,12	1,34	1,68	
100 x 200 x 6	0,19	0,38	0,50	0,63	0,76	1,01	1,26	1,51	1,89	
100 x 200 x 10	0,32	0,63	0,84	1,05	1,26	1,68	2,10	2,52	3,15	
150 x 300 x 15	0,32	0,63	0,84	1,05	1,26	1,68	2,10	2,52	3,15	
200 x 200 x 9	0,19	0,38	0,50	0,63	0,76	1,01	1,26	1,51	1,89	
200 x 200 x 14	0,29	0,59	0,78	0,98	1,18	1,57	1,96	2,35	2,94	
300 x 300 x 10	0,14	0,28	0,37	0,47	0,56	0,75	0,93	1,12	1,40	
400 x 400 x 10	0,11	0,21	0,28	0,35	0,42	0,56	0,70	0,84	1,05	
500 x 500 x 12	0,10	0,20	0,27	0,34	0,40	0,54	0,67	0,81	1,01	
600 x 600 x 12	0,08	0,17	0,22	0,28	0,34	0,45	0,56	0,67	0,84	
600 x 1200 x 12	0,06	0,13	0,17	0,21	0,25	0,34	0,42	0,50	0,63	

## Warnings

The ease of FUGASTYLE® EPOX SUPER laying diminishes as the temperature decreases. The optimum temperature range for application is between 8 and 35°C. Below 13°C an increase of viscosity occurs, however, this does not affect the development of mechanical and chemical properties.

For special uses (laboratory benches, workshops, etc), the chemical nature of aggressive agents which come into contact with the product must be assessed. For the chemical resistance of FUGASTYLE® EPOX SUPER refer to the section "Chemical resistance" of this Technical Data Sheet.

On light-coloured tiles, where a dark tiles sealant/grouting is required (or vice versa), the cleanability of the surface shall be previously assessed using real application test.

On unglazed tiles or not ceramic plated tiles (e.g. clinker unglazed tiles) the cleanability of the surface shall be previously assessed using real application test. It is however advisable to grout with FUGASTYLE® EPOX SUPER of the same colour version of the tile;

Do not apply:

- on Florentine terracotta tiles;
- on either particularly porous natural / synthetic stone tiles or coatings. In case of doubt proceed with sealing a testing area of meaningful size to verify the cleanability of FUGASTYLE® EPOX SUPER with the material to be sealed;
- on oil mills floors and walls.

The packs of A and B are pre-weighed. In case of partial use, components A and B are to be mixed respecting the correct mixing ratio indicated on the packaging.

FUGASTYLE® EPOX SUPER does not guarantee a perfect adhesion when applied on substrates covered with cement dust, oils or grease.

The product may cause skin and eyes irritation. When using this product and during all processing phases, protective eyewear complying with EN 166 class 1F or higher and rubber gloves category II or higher must be worn. The use of gloves made of nitrile provides an adequate protection and a long service life.

Please, carefully read the Material Safety Data Sheet (MSDS) before use.

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SPECIFICATION		PERFORMANCES	
bulk density UNI EN ISO 1675	A		1,43 ± 0,05
	B	kg/dm <sup>3</sup>	1,40 ± 0,05
	A+B		1,41 ± 0,05
application temperature (interval)		°C	from +8 to +35
abrasion resistance UNI EN 12808-2		mm <sup>3</sup>	77 ± 5
shrinkage, UNI EN 12808-4		mm/m	1,3 ± 0,1
flexural strength UNI EN 12808-3		MPa	> 30
compressive strength UNI EN 12808-3		MPa	> 45
water absorption UNI EN 12808-5	30 min	g	0,02 ± 0,01
	240 min		0,04 ± 0,01
shear adhesion after immersion in water UNI EN 12003		Mpa	3,6 ± 0,5
shear adhesion after thermal shock UNI EN 12003		MPa	> 2,0
open time (tensile adhesion to 3,2 MPa) UNI EN 1346		min	20
slip UNI EN 1308		mm	0,20 ± 0,05
crosslinking ratio by weight (A:B)		-	11,50 : 1,00
Fire reaction for thickness less than 5 mm EN 12004-1 par. 4.4.3		-	E WFT

## Chemical resistance (resistance to stain according to UNI EN 12720)

contact time wash cycle	7 days				72 hrs				24 hrs				1 hrs				10 min				10 seconds							
	0	A	B	C	0	A	B	C	0	A	B	C	0	A	B	C	0	A	B	C	0	A	B	C				
<b>chemical agent</b>																												
ACETIC ACID 2,5%	5																											
ACETIC ACID 5,0%	4	4	4	4	5																							
ACETIC ACID 10,0%	4	4	4	4	5																							
HYDROCHLORIC ACID 37,0%	5																											
CITRIC ACID 10,0 %	5																											
PHOSPHORIC ACID 50,0 %	4	4	4	4	5																							
PHOSPHORIC ACID 75,0 %	4	4	4	4	5																							
LACTIC ACID 2,5 %	4	4	4	4	5																							
LACTIC ACID 5,0 %	2	2	2	2	4	4	4	4	5																			
LACTIC ACID 10,0 %	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	5											
NITRIC ACID 25,0 %	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	5											
NITRIC ACID 50,0 %									*1				3	3	3	3	5											
OLEIC ACID					*1				3	3	3	3	5															
SULPHURIC ACID 2,0 %	5																											
SULPHURIC ACID 10,0 %									*1				2	2	2	2	5											
SULPHURIC ACID 96,0 %													*1				2	2	2	2	5							
TARTARIC ACID 10,0 %	5																											
<b>Bases and alkalis</b>																												
AMMONIA 25,0 %	5																											
SODIUM HYPOCHLORITE 6,4 g/L	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5											
SODIUM HYPOCHLORITE 49 g/L (CANDEGGINA COMMERCIALE)	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5							
CAUSTIC SODA 50,0 %	5																											
<b>Salts</b>																												
SODIUM CHLORIDE water-saturated	5																											
FERRIC NITRATE water-saturated	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5											

\* joint disintegration as a result of chemical corrosion

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The washes must be performed according to the 0-A-B-C sequence until either the complete removal of the stain or the best possible removal is achieved. At the end of each wash the surface residual stains shall be evaluated and, if absent, do not proceed to the next wash.

Wash cycle	Cycle description
0	The wash procedure is as follows: allow the detergent to react for 15 seconds, then rub the surface with a white Scotch Brite pad for 1 minute, then rinse with cold water.
A	wash with pure tap water at 15°C
B	wash with tap water and detergent for hard surfaces (testing with simulants according to UNI EN 12720)
C	wash with alkaline cleaner based on caustic soda (10%) and nonionic surfactant (3%) type detergent for industrial kitchens.
	wash with 50% commercial bleach solution (49 g/L of active chlorine).




























The interpretation of results must be carried out according to the numerical classification described in the following table.

Points given	Attack description
5	No alteration - the area subjected to chemical attack is indistinguishable from the surrounding area.
4	Alteration barely perceptible - the area subjected to chemical attack is distinguishable from the surrounding area only when viewed against the light. The alteration consists only of changes in the gloss and color of the surface and does not affect the structure of the surface (swelling, cracking, blistering, raveling, etc).
3	Moderate alteration - the area subjected to chemical attack is distinguishable from the surrounding area in several directions and not only against the light. The alteration consists only of changes in the gloss and color of the surface and does not affect the structure of the surface (swelling, cracking, blistering, raveling, etc).
2	Significant alteration - the area subjected to chemical attack is clearly distinguishable from the surrounding area. The alteration may relate to both changes in the gloss and color of the surface or the surface structure (swelling, cracking, blistering, raveling, etc).
1	Strong alteration - the structure of the surface subjected to chemical attack undergoes a marked change from the aesthetic (color and gloss) and structural (formation of cracks, blisters, swelling and raveling) point of view.

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## COLOR CHART

	COLOR	FUGASTYLE EPOX SUPER 2 kg	FUGASTYLE EPOX SUPER 5 kg
	Nero	1102505043	1102505044
	Antracite	1102505001	1102505002
	Grigio 4	1102505058	1102505059
	Grigio Cemento	1102505038	1102505016
	Grigio Ferro	1102505060	1102505061
	Grigio Seta	1102505062	1102505063
	Grigio Perla	1102505064	1102505065
	Grigio Argento	1102505066	1102505067
	Bianco	1102505005	1102505006
	Bianco Antico	1102505068	1102505069
	Crema	1102505031	1102505032
	Avorio	1102505003	1102505027
	Beige	1102505028	1102505004
	Tortora	1102505070	1102505071
	Pergamena	1102505072	1102505073
	Rosa Antico	1102505047	1102505017
	Rosato	1102505048	1102505049
	Rosso Arancio	1102505050	1102505051
	Castagno	1102505074	1102505075
	Cioccolato	1102505076	1102505077
	Rovere	1102505078	1102505079
	Ulivo	1102505080	1102505081
	Marrone 1	1102505039	1102505040
	Caramello	1102505082	1102505083
	Celeste	1102505010	1102505030
	Blu Acciaio	1102505029	1102505009
	Verde Pallido	1102505054	1102505055
	Verde Scuro	1102505056	1102505057
	Giallo Sole	1102505034	1102505035

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