

BOTAMENT® EF 500^{EK 500}

Epoxy resin joint and adhesive mortar 2K



BOTAMENT® EF 500^{EK 500} is an epoxy resin joint and adhesive mortar for wall and floor coverings in interior and exterior areas with high chemical resistance.
As a joint mortar BOTAMENT® EF 500^{EK 500} is suitable for joint width between 2 and 10 mm.
As adhesive mortar BOTAMENT® EF 500^{EK 500} is suitable for tile covers made from stoneware, porcelain stoneware, split tiles, floor clinker slabs, clinker tiles, as well as for ceramics and glass mosaics.
The simultaneous use as joint and adhesive mortar offers the advantage of having the same colour for both installation and joint material, which is particularly important when fitting glass tiles or small mosaics.

Properties

- ❖ High chemical resistance
- ❖ Easy application
- ❖ Can be cleaned easily with cold water
- ❖ Good shoulder bonding
- ❖ High abrasion resistance
- ❖ Approved for drinking water and use in swimming pools
- ❖ Tested in accordance with EN 12004: R2 T

Application areas

- ❖ swimming pools
- ❖ showers
- ❖ industrial kitchens
- ❖ drinks industry
- ❖ food industry
- ❖ chemical industry
- ❖ car and truck wash

Suitable substrates

- ❖ concrete
- ❖ cement and lime cement of categories CS II and CS III (compressive strength $\geq 2.5 \text{ N/mm}^2$)
- ❖ cement screeds and calcium sulphate screeds
- ❖ sanded mastic asphalt screeds (IC 10)

Furthermore BOTAMENT® EF 500^{EK 500} can be used for the application of tiles on torsion-resistant steel substrates. For this please contact our technical department previously.

Substrate preparation

When used as joint mortar the joints must first be cleared of any bonding material, separating agents and dirt.

When used as adhesive the substrate must be in the following condition:

- ❖ dry, clean and frost-free
 - ❖ stable
 - ❖ free from grease, paints, cement laitance, separating agents, sintered layers and loose particles
- be flush and perpendicular

Technical data

material basis	2-component epoxy resin system
colours	white (No. 10) silver grey (No. 16) grey (No. 24) anthracite (no. 26)
packaging	5 kg unit 3.571 kg component (A) 1.429 kg component (B)
storage	frost-free, cool and dry at least 9 months in its original sealed container
density	~ 1.7 kg/ dm ³
temperature consistency	- 30° C to + 70° C (dry heat)
mixing ratio	2.5 (A): 1 (B)
open time	~ 15 minutes
working time	~ 30 minutes
walkable	after approx. 24 hours
can be loaded mechanically	after approx. 3 days
chemical resistance reached	after approx. 7 days
application and substrate temperature	+ 10° C to + 25° C
cleaning agent	thinner

If BOTAMENT® EF 500^{EK 500} is exclusively used as adhesive mortar and not as joint mortar at the same time, a waiting time of at least 12 hours must be observed after the fitting before jointing can commence.

All times specified here are based on a standard temperature of + 23° C and 50 % relative humidity. Higher temperatures accelerate, while lower temperatures delay processing time and curing.

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Application

- ❖ add component B to component A and mix the two with a slowly rotating agitator for at least 3 minutes
- ❖ so as to avoid mixing mistakes re-pot BOTAMENT® EF 500^{EK 500} into a clean container (scrape container clean thoroughly) and mix again

Use as adhesive mortar

- ❖ apply BOTAMENT® EF 500^{EK 500} with notched trowel (observe open time)
- ❖ the tiles are pressed into the adhesive bed and are aligned with a slight side to side movement

Use as joint mortar

- ❖ perform jointing using a special jointing trowel
- ❖ pre-wash surface with a hydro sponge (on profiled coverings use a soft fleecy sponge) and then finish with a thorough final wash (wash until clear)
- ❖ change wash water regularly
- ❖ do not mix material that has started to set again

The mixing ratio specified by the factory must be adhered to.

Consumption joint mortar

tile format (cm)	24 x 11.5 (split tiles)
joint width (mm)	8
joint depth (mm)	10
	1.86 kg/m²
tile format (cm)	10 x 10
joint width (mm)	5
joint depth (mm)	8
	1.33kg/m²
tile format (cm)	20 x 20
joint width (mm)	5
joint depth (mm)	8
	0.67 kg/m²
tile format (cm)	2 x 2 (mosaic)
joint width (mm)	3
joint depth (mm)	3
	1.26 kg/m²

To calculate further consumption values please use our joint consumption calculator at www.botament.com

Consumption adhesive mortar

6 mm notched trowel	~ 2.8 kg/m ²
8 mm notched trowel	~ 3.6 kg/m ²

Important Information

When installing ceramic coverings all applicable standards and guidelines must be observed in their current versions.

Tile coverings subject to heavy loads must be planned and executed as maintenance areas.

For the purpose of matching the requirement profile of the respective project with the technical data of BOTAMENT® EF 500^{EK 500} with regard to mechanical, thermal and chemical loading please contact our department application technology.

The water in swimming pools must be prepared in accordance with current standards and regulations.

Deviations from the values stipulated therein may lead to damage to the joint materials.

As slight colour variations may occur between different batches it is recommended using only material from one batch per area fitted.

Joint mortar residue may deposit in tiles that are rough or have an open-pore structure.

To achieve optimal results we recommend conducting a site-specific test sample prior to installation.

People with sensitive skin may experience an allergic reaction when working with epoxy resin materials. To avoid skin contact we therefore recommend wearing suitable protective clothing.

Ensure adequate ventilation and airing of the site when using BOTAMENT® EF 500^{EK 500}.

The safety data sheet is available for download at www.botament.com.

Important Notice: The information provided here is based on our experience and is given to the best of our knowledge, but is non-binding. All instructions must be adapted to suit the individual building projects, the application purpose and the specific local conditions. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In any case, the generally accepted technical rules must be adhered to. Edition GB-1307. Further technical details can be found in our technical data sheets on our website: www.botament.com.

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List of chemical resistance in accordance with EN 12808

Acetone	-
Formic Acid 5 %	+
Ammonia solution 10 %	+
Ammonia solution 25 %	+
Anthracene oil	O
Benzene	(O)
Beer	+
Bleaching lye, diluted	(+)
Boric Acid 3 %	+
Calcium Hydroxide, cryst.	+
Chlorine Water (swimming pool water)	+
Chromic acid, 10 %	(O)
distilled Water	+
Fertilizing Salts	+
Acetic Acid 5 %	+
Acetic Acid 25 %	-
Ethanol, 50 % in Water	+
Ethyl Acetate	(O)
Animal and Vegetable Fats	+
Fatty Acids, e.g. Oleic Acid	+
Formaldehyde, 35 %	O
Fruit Juices, liquid	+
Glycerine	+
Urea, solid and dissolved	+
Heating Oil	+
Humic Acid	(+)
Isopropanol	+
Caustic Potash, 5 %	+
Caustic Potash, 20 %	+
Caustic Potash, 50 %	+
Lime Water	+
Kerosene	+
Saline Solution, concentrated	+
Carbonic Acid, dissolved	+
White Spirit	(+)
Seawater	+
Methanol	(O)
Milk	+
Lactic Acid, 10 %	(+)
Mineral Oils	+
Sodium Carbonate, 10 % Soda	+
Sodium Hypochlorite Solution 10 %	(+)

Caustic Soda, 5 %	+
Caustic Soda, 20 %	+
Caustic Soda, 50 %	+
Oxalic Acid, liquid 10 %	(+)
P ₃ -Solution	+
Paraffin Oil	+
Petroleum	+
Phosphoric Acid, 10 %	(+)
Phosphoric Acid, 85 %	-
Red Wine	(+)
Nitric Acid, 5 %	(+)
Nitric Acid, 10 %	(O)
Saline Solutions, neutral, non-oxidized	+
Hydrochloric Acid, 5 %	+
Hydrochloric Acid, 20 %	(O)
Hydrochloric Acid, 36 % (concentrated)	-
Sulphuric Acid, 5 %	(+)
Sulphuric Acid, 25 %	(+)
Sulphuric Acid, 50 %	(+)
Sulphuric Acid 96 % (concentrated)	-
Sulphurous Acid, 5 %	(+)
Sulphurous Acid, 25 %	(+)
Soap Solution	+
Solventnaphtha (Heavy Benzol)	+
Synthetic Hydraulic System Oils	(O)
Tar Oils, high-boiling	(+)
Turpentine	+
Trichloroethylene	-
Water, 20 °C	+
Water, 60 °C	+
Hydrogen Peroxide, 3 %	+
Tartaric Acid, solid or in liquidized form	(+)
Xylene	+
Citric Acid, solid or in liquidized form	(+)
Sugar, dissolved in water	+

+ resistant
 O partially resistant under occasional loading (in low-boiling solvents this corresponds to the normal vaporisation period of a thin layer)
 - not resistant
 () resistant or rather partially resistant, however, external changes may potentially occur (e.g. colour and firmness)
 ** please contact Application Technology for advice