EPO ANCHOR

Go to TDS

Mortars

EPO ANCHOR IS TWO-COMPONENT PRODUCTS BASED ON EPOXY RESINS, SELECTED FINE-GRAIN AGGREGATES AND SPECIAL ADDITIVES.

PRODUCT DESCRIPTION

Epo Anchor is two-component products based on epoxy resins, selected fine-grain aggregates and special additives. After mixing Epo Anchor (part A) with hardener (part B), a thixotropic mix, easy to apply is obtained. Once prepared, Epo Anchor hardens by chemical reticulation alone in approximately 5 hours without shrinkage. They become compounds with exceptional bonding and mechanical strength. Epo Anchor may also be applied on very damp surfaces as long as there is no standing water. Epo Anchor meet the requirements defined by EN 1504-9 “Products and systems for the protection and repair of concrete structures.

FIELD OF APPLICATION

· Structural reinforcement of beams and pillars by bonding steel or composite material to concrete.
· Non-flexible structural bonding of precast concrete elements.
· Sealing injectors and surface damage before injection of Epo Inject by low-pressure pump.
· Sealing large cracks and repairing joint corners in industrial flooring subject to traffic.
· Bonding fiber-reinforced cement slabs and pipes.
· Waterproofing large size joints by bonding TPE strips to concrete.

LIMITATIONS

· Do not use for sealing flexible joints or joints subject to movement
· Do not use for shrinkage joints between fresh and hardened concrete
· Do not use on dirty or crumbling surfaces.
· Do not use for bonding and grouting anti-acid ceramic tiles
· Do not use for leveling concrete surfaces before bonding carbon fiber fabrics.

APPLICATION PROCEDURE

A) Preparation of the support

To ensure good adhesion special care must be taken for the preparation of surfaces to be bonded. The concrete, natural stone or brick substrate must be clean, sound and dry. Sand-blasting is ideal to remove all loose and crumbling parts, efflorescence, cement laitance and traces of form-release oils. Then remove all dust with compressed air. All traces of rust, paint and oil must be removed from metal surfaces, preferably by means of sand-blasting down to bright metal. With regards to fresh placed concrete, it is necessary that the concrete cures for at least 28 days before applying Epo Anchor. This is to avoid tensions induced by hygrometric shrinkage of the concrete concentrated in the interface of the bonding. The application temperature of Epo Anchor must not be below +5°C and +10°C.

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B) Preparing the product

The two parts of Epo Anchor must be mixed together. Pour part B (grey) into part A (White) and mix at a slow speed with a drill fixed with an agitator until a uniform paste is obtained (a uniform grey). The product is already pre-dosed. To avoid incomplete hardening of Epo Anchor, do not use partial quantities. When partial quantities are necessary, use a precision electronic scale. The mixing ratio is:

· 1 parts by weight of component A;

· 1 part by weight of component B.

C) Applying the product

Epo Anchor can be applied on concrete, stone, brick or metal with a flat trowel or float. To obtain good bonding, it is recommended to spread the adhesive on both surfaces that need bonding and let the product penetrate well, especially on irregular surfaces. After applying the adhesive, unite the two pieces that need bonding and keep firm until the adhesive has completely hardened. The sufficient thickness to obtain an excellent bonding strength is approximately 1-2 mm. Thanks to the excellent thixotropic property, Epo Anchor can also be applied vertically or on ceilings without slipping. The surrounding temperature has an effect on the hardening time of the two products. At +23°C Epo Anchor remains workable for approximately 50 minutes. After this time, the products begin the hardening process. Epo Anchor must be applied within the useful pot life time. It is therefore necessary to plan the work within the time limit mentioned above.

COVERAGE / CONSUMPTION

Approximately 1.65-1.75 kg/m² per mm of thickness

PACKAGING

Epo Anchor is supplied in 5 and 15Kg plastic bucket A+B.

SHELF LIFE

Original sealed bags of this product are guaranteed to be of first quality for 24 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

SAFETY INSTRUCTION

DCI EPOXY 1000 DCI Epoxy 1000 component A is irritant for the skin and the eyes, both components A and B may cause sensitization in those subjects sensitive to such substances. DCI Epoxy 1000 component B is corrosive and may cause burns. The product contains low molecular weight epoxy resins that may cause sensitization if cross-contamination occurs with other epoxy compounds. When applying the product, we recommend the use of protective gloves and goggles and to take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention. DCI Epoxy 1000 component A is also hazardous for aquatic life. Do not dispose of this product in the environment. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet. PRODUCT ONLY FOR PROFESSIONAL USE.

TECHNICAL DATA

Product identity		
	Component A	Component B
Consistency	Thick paste	Thick paste
Color	White	Beige
Density (Kg/Lt)	1.6	1.6
Dry solids content (%)	100	100
Brookfield viscosity (mPa·s)	800,000 (# F - 5 rpm)	650,000 (# F - 5 rpm)
Application data (at +23°C and 50% R.H.)		
Mixing ratio	1	1
Brookfield viscosity of mix (mPa·s)	1,000,000 (# F - 2.5 rpm)	
Density of the mix (kg/Lt)	1.45	
Pot life of mix	50 minutes	
Application temperature range	from +10°C to +30°C	
Open time (according to EN 1346)	60 minutes	
Adjustment time	4-5 hours	
Complete hardening	after 7 days	
Final performances		
Linear shrinkage (%)	0	
Compressive modulus of elasticity (N/mm²)	6,000	
Coefficient of thermal expansion	43 x 10-6K-1	
Glass transition temperature	> +40°C	
Reaction to fire	B-s1, d0	
Bond strength on damp concrete according to EN 12636 (N/mm²)	5.2	
Concrete-steel bond strength (N/mm²)	4.8	
Concrete-Carboplate bond strength (N/mm²)	5.5	

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