EPO GROUT 3C PLUS

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Mortars

THREE-COMPONENT FREE-FLOWING HIGH-STRENGTH RAPID HARDENING EPOXY GROUT APPLIED IN LAYERS UP TO 10 CM THICK FOR ANCHORING AND GROUTING STRUCTURES.

PRODUCT DESCRIPTION

Epo Grout 3C Plus is a three-component product based on epoxy resin, selected well-graded aggregates and special admixtures. After mixing component A with hardener component B and filler component C, a fluid mixture which is easily poured and applied in layers up to 5 cm is obtained. After preparation, Epo Grout 3C Plus hardens in approximately 8 hours by chemical reaction without shrinking, and is transformed into a compound with exceptional bonding strength and chemical and mechanical resistance characteristics. After hardening is durable and may be used for both internal and external applications. Epo Grout 3C Plus may be applied in a temperature range between +10°C and +35°C. Epo Grout 3C Plus complies to principles defined in EN 1504-9 "Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity assessment.

FIELD OF APPLICATION

· Repair and structural reinforcement of beams and columns by casting into formworks.
· Rebuilding and renovation of crumbled joints in industrial floors.
· Repairing bridge-crane runways.
· Repair of joints between concrete slabs in deteriorated industrial floors (butt joints).
· Filling of large holes in concrete floors and slabs.
· Foundations for presses and general heavy machinery.
· Evening-out of the surfaces of support elements for the bearing of bridge beams.
· Structural fixing of tie-rod fasteners and bolts in existing concrete structures, stone, rock and steel subject to vibration and chemical attack.

LIMITATIONS

· Not be used for sealing flexible joints or joints which are subject to movement
· Not be used for cold joints between fresh and old concrete
· Not be used on wet surfaces.
· Not be used on dirty or crumbly surfaces.
· Not be used for bonding and grouting anti-acid ceramic tiles.

APPLICATION PROCEDURE

A) Preparation of the support

Before the application, the substrate must be perfectly clean, solid and strong. All loose and crumbling parts, dust, cement laitance and traces of form-release oils and paint must be eliminated by careful sandblasting or brushing. When applying

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the product to metal, remove any rust and grease residues beforehand, preferably by means of sandblasting to white metal.

B) Preparing the product

The three components have to be mixed together. Pour component B into component A, making sure that the container with the catalyst component B is completely emptied, and mix them together with a drill fitted with a low-speed mixer until a completely homogeneous paste is formed. At this point, pour in the selected aggregates component C with a continuous, regular flow, and mix together for 4 or 5 minutes until a uniformly wet paste with a homogenous color is obtained. The packages are already pre-dosed. Therefore, avoid using only partial quantities of the packages to avoid accidental errors in the mix ratio, which would lead to a lack or only partial setting.

C) Applying the product

Epo Grout 3C Plus must be applied by pouring and, where necessary, into sealed formworks.. The air temperature influences the setting time of the product; at +23°C, may be worked for approximately 60 minutes. Epo Grout 3C Plus must be applied within the indicated pot life. Therefore, make sure that the work is organized and programmed so that all the operations are completed within the time indicated above.

COVERAGE / CONSUMPTION

Approximately 2 kg/m² per mm of thickness.

PACKAGING

Epo Grout 3C Plus is supplied in:
Packages of 13 kg:
component A = kg 2;
component B = kg 1;
component C = kg 10.

Packages of kg 31:
component A = kg 4;
component B = kg 2;
component C = kg 25.

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

Epo Grout 3C Plus component A is irritant for the skin and eyes. Both components A and B may cause sensitisation in those predisposed if in contact with the skin sensitive to such substances. Epo Grout 3C Plus component B is corrosive and may cause serious burns and damages to eyes. Then it can also provoke irreversible damages if used for lengthy periods. Epo Grout 3C Plus component C contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. 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. After mixing components A and B, the material reacts and generates a high amount of heat. We recommend applying the product as soon as possible after preparing the mix and to never leave the container with the resins unattended until it is completely empty. Epo Grout 3C Plus components A and B are also hazardous for aquatic life. Do not dispose of these products 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 FOR PROFESSIONAL USE

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TECHNICAL DATA

Product identity			
	Component A	Component B	Component C
Consistency	Liquid	Liquid	Powder
Color	White	Transparent	Grey
Density (Kg/Lt)	1.05	1.05	
Dry solids content (%)	60	100	100
Brookfield viscosity (mPa·s)	800 (# F - 5 rpm)	650 (# F - 5 rpm)	
Application data (at +23°C and 50% R.H.)			
Mixing ratio	4	2	25
Brookfield viscosity of mix (mPa·s)	6,000 (# F - 2.5 rpm)		
Density of the mix (kg/Lt)	2		
Pot life of mix	60 minutes		
Application temperature range	from +10°C to +30°C		
Open time (according to EN 1346)	45 minutes		
Adjustment time	4-5 hours		
Complete hardening	after 7 days		
Final performances			
Creep: – movement with a load of 50 kN for 3 months - (mm)	0.3		
Slip-resistance of reinforcement rods: – movement with a load of 75 kN - (mm)	< 0.45		
Glass transition temperature	+50°C		
Compressive strength (MPa)	105 (after 7 days)		
Flexural strength (MPa)	35 (after 7 days)		
Compressive modulus of elasticity (MPa)	2,500		
Modulus of flexural elasticity (MPa)	11,000		
Bond strength on concrete	> 3 (failure of concrete)		
Reaction to fire	D-s2, d2		

WARNING
Danger. Contains Portland Cement: Chromium VI < 2 ppm within the validity period of the product. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF IN CONTACT WITH YOUR SKIN: Wash with plenty of water/... P305 + P351 + P338 IF IN CONTACT WITH YOUR EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor/...

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