



ARDEX B 16

Concrete Repair Mortar with Corrosion Protection

- Repairs of structural concrete and reinforced concrete structural elements; for filling cracks and voids
- Heavy-duty, certified as R4 PCC mortar according to EN 1504-3
- Protects the reinforcement from corrosion, certified to EN 1504-7
- Very good processing properties, high stability, low shrinkage
- For layer thicknesses from 5 to 70 mm
- Resistant to frost, salts and sulfates, chloride-free



Scope of Application

For indoor and outdoor. Wall, floor and ceiling. For filling and reprofiling holes and breakouts with exposed reinforcement. For repairing and aligning concrete surfaces. For repair precast concrete and reinforced concrete structures such as balcony slabs, straps and supports. Subway, highway, tunnel, dam etc. in engineering structures. Protects the reinforcement against corrosion.

Properties

Ready to use, fiber reinforced PCC concrete repair mortar with anti-corrosive effect.

High strength. Certified to EN 1504-3 "Static and not statically relevant repair" as R4-mortar for the static relevant repair. Can be hand or machine processed become. The low-shrinkage curing causes cracking minimized.

Resistant to frost, salts and sulfates. Contains active pigments, which protect the reinforcement from corrosion. Certified to EN 1504-7 "Corrosion protection of reinforcement"

High wear resistance.

Can be applied in layer thicknesses of 5 to 70 mm per operation

Preparation of Substrate

The substrate must be firm, non-slip and free from dust, dirt, paint, plaster residues, lime splashes and release agents. Not sustainable, loose or eg. damaged concrete is up on the remove rough and viable mineral core concrete, eventual reinforcement is to be exposed so that it is completely cleaned and with mortar can be sheathed. The exposed reinforcement should be at least to the surface cleanliness SA 2 by suitable methods to clean mechanically. (e.g., sand or high pressure water jet method) Immediately after complete derusting is in a outbreak exposed reinforcement completely and without cavities with ARDEX B 16 to mortify. The substrate must have a minimum temperature during installation and curing of +5°C and allowed a maximum temperature of +30°C exhibit.



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ARDEX Yapı Malzemeleri Ltd. Şti.
İstanbul Deri Organize Sanayi Bölgesi
Desen Sok. No:14/A C1 Özel Parsel P.K. 34956
Tuzla/İstanbul/Türkiye
23
2765-CPR-287

40062
EN 1504-3:2005

40062 ARDEX B 16 EN 1504-3:R4
Polymer-modified cementitious mortar for the structural repair of reinforced concrete structures.
EN 1504-3:R4

Reaction to fire	A1
Compressive strength:	R4 Class
Chloride ion content:	≤ 0,05 %
Adhesive Bond:	≥ 2.0 MPa/mm ²
Restrained shrinkage/expansion:	≥ 2.0 MPa/mm ²
Carbonation resistance	geçti
Modulus of elasticity	≥ 20 GPa
Thermal compatibility part 1, freeze/thaw attack with de-icing salt	≥ 2,0 MPa
Skid resistance:	NPD
Coefficient of thermal expansion	NPD
Capillary absorption	≤ 0,5 kg/(m ² ·h)
Dangerous substances:	Complies to 1504-3 article 5.4



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40062 A
EN 1504-7:2006
40062 A ARDEX B 16,
EN 1504-7

Cement based coating for reinforcement corrosion protection for uses other than low performance requirements

Corrosion protection:	passed
Shear adhesion:	passed
Dangerous substances:	Complies to 1504-7 article 5.3

ARDEX Yapı Malzemeleri Limited Şirketi
İstanbul Deri Organize Sanayi Bölgesi Desen Sk.
No:14/A C1 Özel Parsel Tuzla/İstanbul/TÜRKİYE
Tel.:+90 (216) 394 0114 Faks:+90 (216) 394 0377
info@ardex.com.tr - www.ardex.com.tr

ARDEX Turkey is a subsidiary of the International ARDEX Group.

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Pretreatment of Substrate

The substrate must be moistened in time before the mortar application. For example, a spray bottle, a wet puff or use sponge. The surface must be moist but free of stagnant water.

- Primer application: ARDEX B 16 is mixed with ARDEX E75 at a ratio of 1:1 to obtain a thick grout that can be applied to the wetted surface with a brush and is applied to the surface beforehand.
- Epoxy primer: You can use ADIPOX PLUS (see technical data sheet) as a binding layer.

ARDEX B16 application should be applied on the primed surface with the wet-wet principle, before the bonding primer is completely dry.

Application

In a clean mixing vessel, add clear water and mix stir vigorously so much powder that a supple-pasty, lump-free, stable mortar is formed. ARDEX B 16 either in a compulsory mixer or with a suitable one mix hand mixer (e.g., Collomix). To mix 25 kg ARDEX B 16 powder approx. 44,25 L water needed. After a maturing time of approx. 2 minutes and stirring again the mortar is processed for about 60 minutes and can be used in one operation can be applied up to 70 mm layer thickness. In addition ARDEX B 16 on the moistened underground in layers tired press on or with a stripper or smoothing trowel sharply withdraw or model edges. The fully cleaned, exposed reinforcement is complete and to mortify without cavities. This is an overlap of 25 mm recommended. With solidification beginning of the mortar can with the smoothing or felting started with a sponge or float. Its high thixotropic feature allows it to reach the desired consistency by taking more water than standard mortars.

Before the desired thickness is applied, creating a thin primer layer and completing the application with the wet-wet principle will improve adhesion and adherence.

Curing

The application should be protected from premature dehydration and freezing with classical curing protection methods (such as laying polyethylene nylon, damp cloth or curing agents).

Warnings

Contains cement, can act as an irritant to eyes and skin. Must be kept away from children. Avoid contact with eyes and skin. Should it get into your eyes, rinse immediately and thoroughly with water and consult your doctor. Wear suitable safety gloves. In its cemented state, it is non-toxic and ecologically safe.

Considerations

For the assessment of the load-bearing capacity of the damaged concrete component, in particular for the assessment of reinforcement, concrete cover, etc. and for the determination of the resulting necessary refurbishment is in doubtful cases a knowledgeable planner or structural engineer to consult.

Technical Data According To ARDEX Quality Standards

Mixing Ratio:	Approx. 4.0 - 4.5 liters of water per 25 kg of powder
Bulk density:	Approx. 1,4 kg/l
Weight of fresh mortar:	Approx. 2,1 kg/l
Consumption:	Approx. 1,8 kg powder/m ² -mm
Working Time *:	Approx. 60 minutes
Opening Time *:	Approx. 24 hours
Fully Cure Time *:	Approx. 28 days
Compressive Strength *:	After 28 days approx. 48 N/mm ²
Flexural Strength *:	After 28 days approx. 8 N/mm ²

* All data is approximately based on laboratory test made at a temperature of +20°C and relative humidity of %65. Environmental conditions may change these values. Higher temperatures and lower relative humidity decrease these duration whereas lower temperature and higher relative humidity increases them.

Application Temperature	between +5°C and +30°C
Application Thickness	from 5mm to 70mm
Corrosion Properties:	Contains anti-corrosion additives
Modulus of Elasticity:	Approx. 20 GPa
Compressive Stren. Class:	R4 class according to EN 1504-3
Reaction to Fire Class:	A1
pH-Value:	Approx. 13
GHS/CLP classification:	GHS 05 "corrosive" GHS 07 "irritating" Signal Word : Danger
GGVSEV/ADR	None
EMICODE:	EC1 Plus - Very low emission
Packaging:	25 kg paper bag
Storage and Shelf Life:	Can be stored up to 12 months in its original unopened package, in a cool dry area. Do not expose bags to direct sunlight.

Recommended Collomix Mixing Paddle

