



ARDEX B 160 FLOW

Grouting and concrete repair mortar

- Fibre-reinforced PCC mortar for repairing, filling and smoothing defects with exposed reinforcement in load-bearing concrete elements
- For layer thicknesses from 6 to 60 mm
- Very good processing properties
- Highly resilient, certified as R4 PCC mortar in accordance with EN 1504-3
- Resistant to frost, de-icing salts and sulphates, chloride-free
- Suitable as grouting mortar in accordance with EN 1504-6
- Low shrinkage



Area of application

For indoor and outdoor use. Floor.

For filling and reprofiling holes and breakouts with exposed reinforcement. For repairing and levelling concrete surfaces. For repairing precast concrete elements and reinforced concrete structures such as balcony slabs, beams and columns, which can be produced by formwork and casting. Protects the reinforcement from corrosion.

Settings

Ready-to-use, fibre-reinforced grouting and concrete repair mortar with corrosion protection. High strength. Certified according to EN 1504-3 "Static and non-static repair" as R4 mortar for static repair. Can be applied manually or mechanically. Low shrinkage during hardening minimises crack formation. Resistant to frost, de-icing salts and sulphates. Contains active pigments that protect the reinforcement from corrosion. High wear resistance. Can be applied in layer thicknesses of 6 to 60 mm per working pass.

Preparation of the surface

The substrate must be solid, non-slip and free of dust, dirt, paint coatings, plaster residues, lime splashes and release agents.

Non-load-bearing, loose or damaged concrete must be removed down to the rough and load-bearing mineral core concrete. The edges of the repair areas must be cut or shaped mechanically to a depth of at least 6 mm. Any reinforcement must be exposed so that it can be completely cleaned and coated with mortar. The exposed reinforcement must be mechanically cleaned to at least surface cleanliness grade SA 2 using suitable methods (e.g. sandblasting or high-pressure water jetting).

Immediately after complete derusting, the reinforcement exposed in a breakout must be completely filled with ARDEX B 160 FLOW Grouting and concrete repair mortar without leaving any cavities.

During installation and curing, the substrate must have a minimum temperature of +5°C and a maximum temperature of +30°C.

In cases of doubt, a competent planner or structural engineer should be consulted to assess the load-bearing capacity of the damaged concrete component, in particular to assess the reinforcement, concrete cover, etc., and to determine the necessary repair measures. Prestressed concrete must never be repaired with ARDEX B 160 FLOW without expert planning.

Pre-treatment of the substrate

The substrate must be moistened in good time before

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Manufacturer with certified
QM/UM system according to
EN ISO 9001/14001

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applying the mortar. Use a spray bottle, a wet slurry brush or a sponge, for example. The substrate must be damp but free of standing water.

Processing

Pour clear water into a clean mixing container and stir vigorously while adding enough powder to produce a smooth, paste-like, lump-free, flowable mortar. Mix ARDEX B 160 FLOW grouting and repair mortar either in a compulsory mixer or with a suitable hand mixer (e.g. Collomix). Approximately 3.5–3.75 litres of water is required to mix 25 kg of ARDEX B 160 FLOW powder approx. 3.5–3.75 litres of water are required.

After a curing time of approx. 2–3 minutes and further stirring, the mortar can be processed for approx. 90 minutes and can be applied in a single operation up to a layer thickness of 60 mm.

ARDEX B 160 FLOW grouting and concrete repair mortar can be applied by pouring or with a pump machine. Apply the freshly mixed product directly to the wetted surface or to the still fresh primer. The mortar obtained in this way allows fillings of up to 60 mm; for greater thicknesses, 2 bags of ARDEX B 160 FLOW must be mixed with one bag of aggregate with a diameter of approx. 6 mm. Ensure that the mortar hardens correctly and keep it moist for 2–3 days.

When using ARDEX B 160 FLOW in formwork, wait at least 12 hours before removing the formwork. The intended load may only be applied once the curing time (required compressive strength) has been reached. The substrate and ambient temperature when applying ARDEX B 160 FLOW must be at least +5°C and no more than +30°C.

Aftercare

The installed mortar must be protected from premature drying, frost, drafts, intense heat or direct solar radiation by suitable measures (e.g. covering with plastic sheets, etc.). Depending on the conditions at the construction site, it is recommended to treat the surface with a wet sponge board or sponge 2–3 days after installation and keep it moist.

Note

The information in our safety data sheets must be observed. For commercial use only!

Zusatzinformation

Handle with care during processing: avoid dust formation and release into the environment.

Dispose of the container and its contents in a sealed state in accordance with applicable local/regional/national/international regulations.

Technical data according to ARDEX quality standard

Mixing ratio approx.	Component A 3.5 - 3.75 l Water 1 Part water	Component B 25 kg powder 5 RT powder
Material requirement approx.	Material requirements 1.90 kg/m ²	Condition Per mm order thickness
Bulk density approx.	1,40 kg/l	
Fresh weight approx.	2,20 kg/l	
Application properties		
Processing time approx.	90 Minute(s)	
Application Ambient conditions	+20°C	
Mechanical properties		
Bending tensile strength approx.	Time After 1 day After 7 days After 28 days	Bending tensile strength approx. 5 N/mm ² 7 N/mm ² 8 N/mm ²
Compressive strength approx.	Time After 1 day After 7 days After 28 days	Compressive strength of approx. 30 N/mm ² 50 N/mm ² 60 N/mm ²
Product details		
PH value approx.	11	
Corrosion behaviour	Contains corrosion-inhibiting components	
Labelling according to GHS/CLP	See relevant safety data sheet	

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Labelling according to ADR	See relevant safety data sheet
EMICODE	EC 1 PLUS = very low emissions PLUS
GISCODE	ZP1 = cementitious product, low chromate content
Packaging	Sacks containing 25 kg net
Storage	Can be stored in cool, dry rooms for approx. 12 months in the original sealed container.

 0370	
ARDEX Baustoff GmbH Hürmer Straße 40 A-3382 Loosdorf Austria 18 0370-CPR-4069	
7669 EN 1504-3:2006 7669 ARDEX B 160 FLOW, EN 1504-3:R4 Polymer modified cementitious mortar (PCC) for structural repair of concrete structures	
Reaction to fire:	A1
Compressive strength:	class R4
Chloride ion content:	≤ 0.05 %
Adhesive bond:	≥ 2.0 MPa
Carbonation resistance:	passed
Elastic modulus:	≥ 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 ·vh)
Hazardous substances:	Compliance with 5.4 der EN 1504-3

 0370	
ARDEX Baustoff GmbH Hürmer Straße 40 A-3382 Loosdorf Austria 18 0370-CPR-4069	
7669A EN 1504-6:2006 7669A ARDEX B 160 FLOW, EN 1504-6 Polymer modified cementitious mortar (PCC) for structural anchors	
Pull-out rebar displacement at 75kN load:	≤ 0,6 mm
Chloride ion content:	≤ 0,05 %
Glass transition temperature:	NPD
Sustainability/Creep under tensile load displacement:	NPD
Reaction to fire:	A1
Hazardous substances:	Compliance with 5.3 der EN 1504-6