REPAIR MORTAR (PCC/M2)

RM20 REPAIR MORTAR (PCC/M2) (0-2 mm)

TEST CERTIFICATES AND SUPPORTING DOCUMENTS

› PCC concrete replacement system acc. to ZTV-ING Part 3, Section 4, DAfStb directive SIB M2, DAfStb directive IH and DIN EN 1504-3 for statically irrelevant applications
› Verifications of applicability: general building inspection test certificate (abP)
› Confirmation of the voluntary external monitoring by the QDB
› Non-combustible – Verification with a test for the classification according to building material class A1 according to EN 13501-1
› Factory production control acc. to DIN EN 1504-3
› Company certification acc. to DIN EN ISO 9001:2015

PROPERTIES

› Ready to use repair mortar, only requires mixing with water
› Reduces the ingressing of CO_2 and moist (inhibiting carbonisation), largely oil and water impermeable, at the same time equipped with a high alkaline reserve, active protection against corrosion of the reinforcement
› Soft-plastic processing consistency with a very good stability on vertical and overhead surfaces
› Is supplied as a system and consists of the following system components
RM02 CORROSION PROTECTION AND BONDING AGENT
RM20 REPAIR MORTAR (PCC/M2) (0-2.0 mm)
MS05 PCC-SCREED (0-0.5 mm)

AREAS OF APPLICATION

› Repair of concrete, prestressed concrete and reinforced concrete constructions
› Reprofiling of bridge decks for the application of sealing sheets or systems even with a hot application
› Areas of application PCC I and PCC II according to ZTV-ING
› Gradient compensation at bridge decks
› Slope coating at mast foundations
› Repair of concrete in the sea and inland waterways department of the BAW (Federal Waterways Engineering and Research Institute) ZTV-W LB 219 (PCC)

MOISTURE CLASSES BASED ON CONCRETE CORROSION FROM ALKALI-SILICIC ACID REACTIONS

Moisture class	WO	WF	WA	WS
RM20	•	•	•	•

The aggregates in PAGEL®'s products comply with the requirements of alkali sensitivity class E1 from non-hazardous sources specified under DIN EN 12620.

EXPOSURE CLASS ALLOCATION ACC. TO: DIN EN 206-1 / DIN 1045-2

	XO	XC	XD	XS	XF	XA
		1 2 3 4	1 2 3	1 2 3	1 2 3 4	1 2 3*
RM20	•	• • • •	• • •	• • •	• • •	• •

* Having sulfate attack up to 600 mg/l
With protective measures according to DIN 1045-2

TECHNICAL DATA

TYPE			RM20
Grain size		mm	0–2
Amount of water	max.	%	12
Processing time approx.	20 °C	min	45
Consumption approx.		kg/(m² · mm)	1.85
Layer thickness (in total, 2 layers)		mm	10–60**
Fresh mortar raw density approx.		kg/m³	2,200
Compressive strength*	24 h	N/mm²	≥ 30
	7 d	N/mm²	≥ 40
	28 d	N/mm²	≥ 50
Adhesive pull strength	7 d	N/mm²	≥ 2

* DIN EN 196-1-compliant compressive strength testing; DAfStb directive IH storage B

** Permissible overall layer thickness acc. to ZTV-ING 50 mm

Note: All fresh and solid mortars are tested at 20 °C ± 2 °C. Higher or lower temperatures result in deviating properties of fresh respectively solid mortars and test results. Depending on the temperature, the consistency can be adapted with a slight reduction of the mixing water.

Storage: 12 months. Cool, dry, free from frost. Unopened in its original container.
Delivery form: 25-kg bag, Euro pallet 1,000 kg
Hazard class: Non-hazardous material, observe information on packaging.
GISCODE: ZP1

PAGEL PRODUCT COMPOSITION:
Cement: acc. to DIN EN 197-1
Aggregate: acc. to DIN EN 12620
Additions: acc. to DIN EN 450, general building inspection approval (abZ), DIN EN 13263 (fly ash, microsilica, etc.)

PROCESSING

SUBSTRATE PREPARATION:
Remove loose and unsound material such as cement slurry and dirt etc. using suitable methods, e.g. shot-blasting or similar until the underlying solid grain structure has been exposed. A sufficient average tear strength (≥ 1.5 N/mm², KEW ≥ 1.0 N/mm²) must be ensured.
Prewetting:
Prewet the concrete substrate to capillary saturation for approx. 6-24 hours.
Reinforcing steel:
Blast all rust off exposed reinforcement bars until the underlying metal has been exposed acc. to purity grade SA 2 ½ in accordance with DIN EN ISO 12944-4.

CORROSION PROTECTION:
Apply two complete coats of **RM02** CORROSION PROTECTION AND BONDING LAYER using a brush.

MIXING:
The dry mortar is supplied ready to use and only needs to be mixed with water. Fill the specified amount of water apart from a residual amount into a clean and suitable mixing device (e.g. compulsory mixer). Add the dry mortar and mix for at least 3 minutes. Add the remaining water and mix for at least another 2 minutes until it forms a homogeneous mass.

BONDING LAYER:
Use a brush or broom, and brush **RM02** onto the prewetted, slightly damp concrete substrate until it has penetrated right down into the pores and without leaving any gaps. The subsequent mortar coating must be applied wet-on-wet. Observe the technical data sheet **RM02**.

APPLICATION:
Apply compressively to the bonding layer before it starts setting using conventional tools, distribute, and smoothen.

Temperature range: +5 °C to + 35 °C
Mixing water: Drinking water quality

FOLLOW-UP TREATMENT:
Exposed grout areas must be protected from premature water evaporation (from wind, draughts, direct exposure to sun, etc.) immediately on completion of the work for a period of 3-5 days.
Suitable curing methods:
Water spray, cover foil with jute sheets, thermofoils or moisture-retaining covering sheets.

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