QUICK REPAIR MORTAR

R20/02 QUICK REPAIR FINE SCREED (0–0.2 mm)
R20/05 QUICK REPAIR SCREED (0–0.5 mm)
R20/10 QUICK REPAIR MORTAR (0–1 mm)
R20/20 QUICK REPAIR MORTAR (0–2 mm)
R20/40 QUICK REPAIR MORTAR (0–4 mm)
R20/80 QUICK REPAIR MORTAR (0–8 mm)

TEST CERTIFICATES AND SUPPORTING DOCUMENTS

› Concrete replacement product for statically relevant and irrelevant repair acc. to DIN EN 1504-3
› Product acc. to DIN EN 13813 "Cement-based screed for wearing layers"
› High frost-deicing salt resistance - Verification by CDF procedure (**R20/20**)
› High sulfate resistance - Verification by testing acc. to DIN 19573 (**R20/10**)
› High resistance to chloride penetration - Verification by testing of the chloride migration coefficient (**R20/40**, **R20/80**)
› High resistance to water penetration - Verification by testing acc. to DIN EN 12390-8
› Factory production control acc. to DIN EN 1504-3 and DIN EN 13813
› Company certification acc. to DIN EN ISO 9001:2015

PROPERTIES

› Durable solution for urgent repair works
› Can be applied from 1 °C
› Loadable after 2 hours from 5 °C
› Ready to use and easy to process
› Polymer-modified, inhibits corrosion
› High frost and frost-deicing salt resistance **(R20/20)**
› Residual moisture 4 % or 3 % (CM device) after 1 and 3 days respectively
› Complies with the requirements of building material class A1 (non-combustible) as specified under decision 2000/605/EC of the European Commission dated September 26, 2000 (published in the official journal L258)

AREAS OF APPLICATION

› Quick repairs
› Concrete and mortar surfaces
› Screeds, stairs
› Floors and walls
› Broken areas, holes, channels
› Channel renovation
› Laying of stoneware tiles
› Floor renovation

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

Moisture class	WO	WF	WA	WS
R20	•	•	•	•

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*			XM			XWW3		
		1	2	3	4	1	2	3	1	2	3	1	2	3	4	1	2	3**	1	2	3	1	2	3
R20/02	•	•	•	•	•	•	•					•	•			•	•		•					
R20/05	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•		•					
R20/10	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•			•	•	•
R20/20	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•					
R20/40	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•		•					
R20/80	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•		•					

* **R20/20, R20/40, R20/80:** Having sulfate attack up to 600 mg/l
** Classification of the sulfate resistance according to DIN 19573

TECHNICAL DATA

TYPE			R20/02	R20/05	R20/10	R20/20	R20/40	R20/80
Grain size		mm	0–0.2	0–0.5	0–1.0	0–2.0	0–4.0	0–8.0
Coating thickness		mm	0.5–5	2–6	3–20	5–40	20–50	30–100
Amount of water	max.	%	18	16	13	12	12	12
Consumption approx.		kg/(m² · mm)	1.9	1.8	1.9	2.0	2.0	2.0
Processability time approx.	20 °C	min	15	15	15	15	15	15
Fresh mortar raw density approx.		kg/m³	2,150	2,100	2,200	2,200	2,200	2,200
Compressive strength*	2 h	N/mm²	≥ 5	≥ 5	≥ 5	≥ 5	≥ 5	≥ 5
	4 h	N/mm²	≥ 6	≥ 10	≥ 10	≥ 10	≥ 10	≥ 10
	8 h	N/mm²	≥ 10	≥ 13	≥ 15	≥ 15	≥ 15	≥ 15
	1 d	N/mm²	≥ 15	≥ 20	≥ 20	≥ 25	≥ 25	≥ 25
	7 d	N/mm²	≥ 30	≥ 40	≥ 40	≥ 40	≥ 45	≥ 40
	28 d	N/mm²	≥ 50	≥ 50	≥ 55	≥ 55	≥ 55	≥ 55
Adhesive pull strength	7 d	N/mm²	≥ 1.5	≥ 1.5	≥ 2	≥ 2	≥ 2	≥ 2

* Mortar compressive strength tested as specified by DIN EN 196-1;
Concrete compressive strength tested as specified by DIN EN 12390-3

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: 6 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.)

APPLICATION

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 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:
Mix small quantities of **R20/10** with 13 % water at the maximum and brush it intensively into the cavities and pores. The subsequent mortar coating must be applied wet-on-wet.

APPLICATION:
Install **R20** in plastic consistency in one step into the as yet unsolidified bonding layer and smoothen after an appropriate waiting time.
Always keep the tools moist.

Temperature range: + 1 °C to + 35 °C
Mixing water: Drinking water quality

FOLLOW-UP TREATMENT:
Fresh mortar 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, foil covers with jute sheets, thermofoils or moisture-retaining covering sheets, **O1** EVAPORATION PROTECTION.
The technical data sheet must be observed when using **O1** EVAPORATION PROTECTION.

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