

M10 PAGEL®-GROUT READY FOR USE (PCC)



CHARACTERISTICS

- **PCC-Concrete-Replacement-System**, cement based, for **repairing and coating** concrete- and mortar areas
- meets the technical testing requirements and terms of delivery according to **ZTV-SIB 90** for **PCC I-, II- and III-areas** as well as the standards of the "Deutschen Ausschuss für Stahlbeton" (**DafStb**) (German committee for steel concrete) for mortar classification **M1** and **M2**
- **universal** in its application for both **horizontal** and **vertical** areas and also for **overhead works**. The system is listed in the "Stoffliste des Bundesministers für Verkehr" (material list of the Federal Minister of Transport) and meets the highest demands with regard to protective and repairing measures on concrete surfaces
- **polymer based** and **ready for use**. The mixing liquid consists of water only; the mortar already contains the polymer component in form of a powder
- reaches a sufficient high compressive- and bending strength, resistant to frost and de-icing salt, allows vapour diffusion
- reduces the penetration of CO₂ and dampness (carbonation), highly impervious to oil and water, inhibiting corrosion and to quite some extent resistant to saponification
- proved for many years, easy to apply, very economical
- controlled according to the valid standards and general directions (BAM Test Certificate No. 2.1/22343); the production is certified according to ISO 9001
- M10 is being complemented by the following products:
 - M10/12 PAGEL-CONCRETE REPLACEMENT (0.1-0.8 mm)
 - M10/13 PAGEL-BONDING-PRIMER (0.1-1.0 mm)

EXAMPLES OF APPLICATION

- repairing of bridges and tunnels in the range of application PCC I, II, III
- patching of concrete, screeding and plaster
- repairing of holes, edges and cracks – grouting of masonry, floor and butt joints
- laying of materials (bricks, slabs, tiles, etc.)
- applying of bridge binder layers (PCC I)
- joining of prefabricated concrete components, old and new concrete



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TECHNICAL DATA

TYPE		M10	M10/12	M10/13	M10/4
Size	mm	0.0–2.0	0.1–8.0	0.1–1.0	0.1–4.0
Coating thickness	mm	10–40	> 30	6–10	20–50
Amount of water	%	10–12	10–12	14–16	9–11
Material needed	kg/m ²	20	20	20	20
Density of freshly mixed mortar	kg/dm ³	2.20	2.28	2.15	2.25
Workability	min.	60	60	60	60
Working temperatur	°C	5–35	5–35	5–35	5–35
Compressive strength	24 h N/mm ²	33.0	28.0	32.0	17.0
	2 d N/mm ²	44.0	40.0	40.0	44.0
	7 d N/mm ²	50.0	46.0	55.0	57.0
	28 d N/mm ²	56.0	53.0	62.0	65.0
Bending strength	24 h N/mm ²	5.0	6.0	6.0	4.5
	2 d N/mm ²	6.0	6.0	6.0	6.8
	7 d N/mm ²	8.0	7.0	8.0	8.8
	28 d N/mm ²	10.5	9.6.0	12.0	10.7
Adhesive strength	28 d N/mm ²	2.8	2.0	2.8	2.8
Modulus of elasticity (statically)	28 d N/mm ²	34 000	—	—	—
Water vapour diffusion coefficient	μ	1×10 ³	—	—	—
Temperature extension coefficient	K ⁻¹	18,3×10 ⁻⁶	—	—	—
Packaging:		25-kg-bags			
Storage:		dry, in closed bags			
Shelf life:		9 months			
Danger classification:		no dangerous goods, please watch the material safety data sheet			
Cement types:		Delivery may take place with other cement types too, however, the technical characteristics do change through this. Should you have any questions, please do not hesitate to contact our advisory service.			

All named testing dates were found out when having a temperature of 20 °C.

APPLICATION

SURFACE: Clean thoroughly, free of loose and unsound material, remove any cement slurry by means of hydraulic water-blasting or similar till carrying capacity of grain structure is reached. Sufficient adhesion must be granted (i. m. > 1,5 N/mm²). Prior to grouting the surface must be wetted continuously till saturation. Descale any exposed reinforcing steel and coat completely either with M10/O2 or EH3 PAGEL-CORROSION PROTECTION.

MIXING: Fill almost the total amount of water required into a compulsory mixer, add the dry mortar and mix for about 3 minutes, then add the remaining water and allow to mix for another 2 minutes.

BONDING PRIMER: Mix M10/13 PAGEL-PCC-MORTAR with the maximum amount of water given till a slurry is reached (mix small amounts only), then brush this slurry thoroughly into the concrete surface.

APPLICATION: Apply the mortar in the desired consistency before the adhesion primer dries out; spread, compact and smooth. Keep tools wet.

CURING: Protect the surface against premature evaporation by keeping the same damp, for example by using a water-fognozzle, plastic sheet or hessian (ZTV-SIB, item 6.65, 5 days). In case of a following coating use for example O2C PAGEL-CONCRETE PROTECTION.

CAUTION: Standard practice in stuccoing and screeding work (regarding joints) is to be observed. When repairing floors, a joint should be made between the wall and the mortar. For layers and holes greater than 40 mm in size use M10/12 PAGEL-PCC-MORTAR.

Please ask for our implementing statutes.

M10-CONCRETE REPAIR SYSTEM

- M10/O2 PAGEL-CORROSION PROTECTION
- M10/13 PAGEL-BONDING AGENT
(particle size 0.1–1.0 mm)
- M10 PAGEL-PRE-MIXED MORTAR alternative 3. M10/12 PAGEL-PRE-MIXED MORTAR
(particle size 0.0–2.0 mm) (particle size 0,1–8,0 mm)
- R1/O5 PAGEL-SCREEDING COMPOUND
- O2C PAGEL-CONCRETE PROTECTION AND CURING alternative 5. O2DE PAGEL-CONCRETE PROTECTION
(ZTV-SIB type OS-C) (ZTV-SIB type OS-DII)

Information provided in this leaflet, supplied by our applications consulting service and contained in other recommendations is based on exhaustive research work and extensive experience. It is, however, without liability on our part, in particular with regard to third parties proprietary rights, and does not relieve the user of the responsibility for verifying that the products and processes are suitable for the intended application. The given testing dates were found out when having a temperature of 20 °C and mean average values and analysis. Deviations are possible when delivery takes place. Our customer service staff will be glad to provide assistance at any time. We appreciate the interest you have shown in our products. This technical data sheet supercedes previously issued information.



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M10

M10/13

M10/12

M10/4