

CHANNEL MORTAR

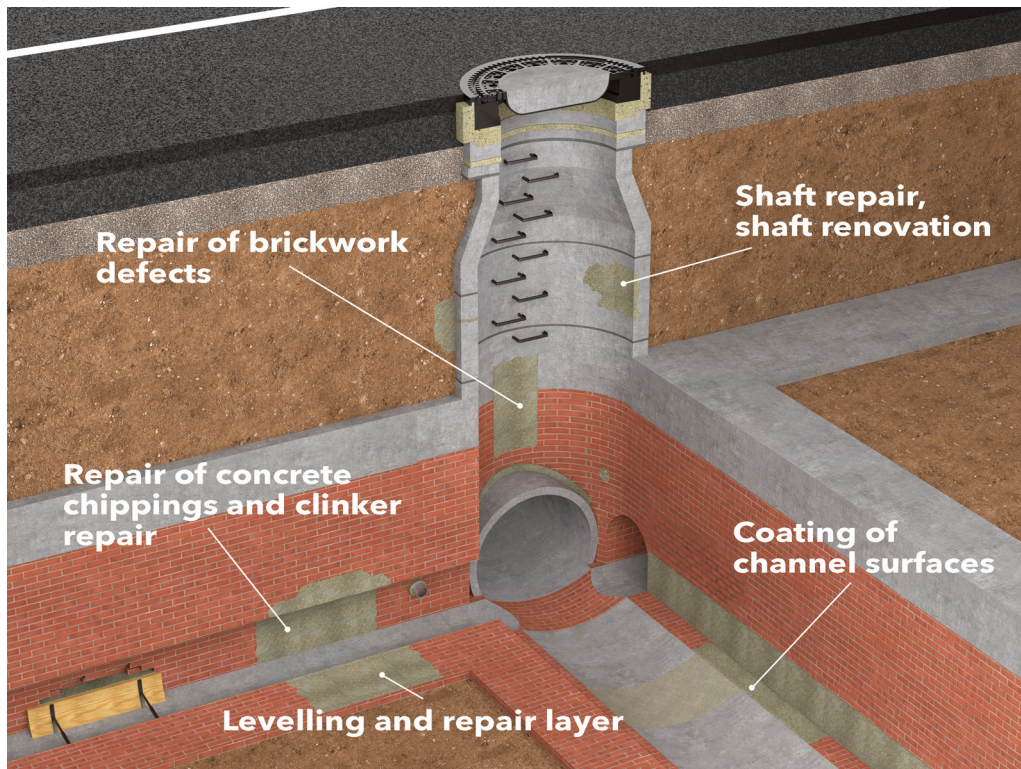
KA20 CHANNEL MORTAR

TEST CERTIFICATES AND SUPPORTING DOCUMENTS

- › Concrete replacement system acc. to
 - DAfStb-Guideline for protection and repair of concrete elements (RL SIB)
 - DIN EN 1504-3 „Concrete replacement product for statically relevant and irrelevant repair“
 - DIN EN 13813 „Cement-based screeds for wearing layers“
 - DIN 19573 „WW filling mortar“
- › High sulfate resistance - verification by testing according to DIN 19573
- › Building material class A1 (non-combustible)
- › Factory production control acc. to DIN EN 1504-3 and DIN EN 13813
- › Company certification acc. to DIN EN ISO 9001:2015

APPLICATION EXAMPLE

Potential application for **KA20**



PROPERTIES

- › Ready to use cement-bound mortar
- › Only requires mixing with water
- › Spray and manual application
- › Soft consistency with very good stability on vertical and overhead substrates
- › Excellent processability with MAWO-PAGEL® dense-phase spray nozzle
- › Highly resistant in part even to strong chemical attack
- › Highly resistant to sulfate attack (industry) and ammonium attack (agriculture)
- › Non combustible

SYSTEM COMPONENTS

- RM02** Corrosion protection and bonding bridge
KA20 Construction mortar

AREAS OF APPLICATION

- › Coating and repair of e.g.
 - Sewage treatment plants
 - Wastewater collectors
 - Wastewater piping systems
 - Collecting basins

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

Moisture class	WO	WF	WA	WS
KA20	•	•	•	•

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 / DIN 19573

	XO	XC	XD	XS	XF	XA*	XM	XW	XALL	XBW	XWW
	1 2 3 4	1 2 3 4	1 2 3	1 2 3	1 2 3 4	1 2 3**	1 2 3	1 2		1 2	1 2 3 4
KA20	•	• • • •	• • •	• • •	• • • • •	• • • •	• •	• •	•	• •	• • •

* Having sulfate attack up to 600 mg/l

** Proof of sulphate resistance in accordance with DIN 19573, Appendix C

TECHNICAL DATA

TYPE			KA20
Grain size		mm	0-2
Amount of water	max.	%	12
Processing time approx.	+ 20 °C	min	≥ 45
Consumption approx.		kg/(m ² · mm)	1.9
Fresh mortar raw density approx.		kg/m ³	2,200
Layer thickness		mm	10-60**
Compressive strength*	1 d	N/mm ²	≥ 30
	7 d	N/mm ²	≥ 40
	28 d	N/mm ²	≥ 50
Bending tensile strength*	1 d	N/mm ²	≥ 3
	7 d	N/mm ²	≥ 5
	28 d	N/mm ²	≥ 8
Adhesive pull strength	7 d	N/mm ²	≥ 2.0
Classification acc. to EN 1504-3			R4

* Testing of bending tensile and compressive strength in accordance with DIN EN 196-1

** 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.)

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.

Reinforced concrete:

The grade of surface preparation of reinforcement as well as other metallic parts is based on the requirements of the current applicable regulations and must be ensured before the application.

Non-iron metals:

Cement and cement-bound building materials may cause non-iron-metals in the transitional area of the contact surface (e.g. aluminium, copper, zinc) to loosen. Please contact us for technical advice.

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.

Mixing water:

Drinking water quality

Temperature range:

+5 °C to + 35 °C)

Low temperatures and cold mixing water reduce strength development, require intensive forced mixing and reduce flowability. Higher temperatures accelerate strength development and can also reduce the flowability.

APPLICATION:

Corrosion protection:

If necessary, apply two layers of **RM02** corrosion protection and bonding bridge to exposed and prepared steel reinforcements. Observe the technical data sheet.

Manual application:

The bonding bridge **RM02** must be applied onto the pre-wetted, matt damp concrete substrate with a brush or broom. Apply without gaps and pore-deep. The subsequent mortar reprofiling must be carried out fresh-in-fresh. If the application is interrupted, the bonding bridge must set completely. Apply, compact and smooth **KA20** sewer mortar with suitable tools on the fresh and not set bonding bridge.

Mechanical application:

KA20 channel mortar in the MAWO-PAGEL® dense-phase wet-spraying process.

The spraying of the mortar can be carried out with conventional screw feed pumps with a variable speed drive suitable for this application. Hold the nozzle preferably at a right angle with a distance of approx. 50 cm to the area to be coated.

The first layer of spray mortar is sprayed on with a high compressed air flow to support the bonding layer. The application of the additional spray layers is carried out with a conveying speed correspondingly adapted to the position of the respective structural component and adapted compressed air support. The post processing and the smoothing of the surfaces can be carried out immediately after the completion of the spray works.

Air compressor:

at least 5 m³/min, 5 bar

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.