

ANCHOR MORTAR

E1 ANCHOR MORTAR
E1SF ANCHOR MORTAR

TEST CERTIFICATES AND SUPPORTING DOCUMENTS

- › Product acc. to DIN EN 15.04-6 "Anchoring of reinforcing bars" (**E1**)
- › High frost-deicing salt resistance - Verification by CDF procedure (**E1**)
- › Factory production control acc. to DIN EN 1504-6
- › Company certification acc. to DIN EN ISO 9001:2015

PROPERTIES

- › High flowability (**E1**)
- › Soft-plastic consistency (**E1SF**)
- › Controlled swelling with frictional bond
- › High early and final strengths and high bond stress
- › Low w/c value
- › Largely resistant to mineral oils and fuels
- › 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

- › Sewage treatment plants
- › Grouting and casting of anchorings in solid rock, soil, concrete and masonry (**E1**)
- › For works overhead and for filling up joints, cavities and rock bolts (**E1SF**)
- › On vertical surfaces as well as for the centrifugal coating of pipes and shafts **E1SF** has to be used

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

Moisture class	WO	WF	WA	WS
E1	•	•	•	•
E1SF	•	•	•	•

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
	1234	123	123	123	1234	123**	123
E1	•	••••	•••	•••	••••	•••	•
E1SF	•	••••	•••	•••	•••	•••	•

* Having sulfate attack up to 1,500 mg/l

** With protective measures according to DIN 1045-2

TECHNICAL DATA

TYPE		E1	E1SF
Grain size	mm	0-0.5	0-0.5
Amount of water	%	30	13
Slump flow	5 min	mm	≥ 700
	30 min	mm	≥ 600
Measure of extension DIN EN 13395-1	5 min	mm	n. d.
			150-190
Consumption (dry mortar)	kg/m ³	1,600	1,800
Fresh mortar raw density approx.	kg/m ³	2,050	2,000
Processing time approx. + 20 °C	min	45	45
Swelling	24 h	Vol.-%	≥ 0.1
			≥ 0.1
Compressive strength*	1 d	N/mm ²	≥ 40
	7 d	N/mm ²	≥ 55
	28 d	N/mm ²	≥ 65
Bending tensile strength*	1 d	N/mm ²	≥ 5
	7 d	N/mm ²	≥ 6
	28 d	N/mm ²	≥ 7

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

n. d.: not determined

Note: All stated test values correspond to the DAfStb VeBMR directive.

Testing of fresh and solid mortars at 20 °C ± 2 °C, storage of the test specimen after 24 hours until the strength test in water 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:	E1: 20-kg bag, Euro palette 960 kg E1SF: 25-kg bag, Euro pallet 1,000 kg.
Hazard class:	Non-hazardous material, observe information on packaging.

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.)
Admixtures:	acc. to DIN EN 934-4

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.

Non-iron metals:

Cement and cement-bound building materials may cause non-iron-metals in the transitional area of the contact surface (e.g. aluminum, 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. Measure out the specified quantity of water and pour most of it 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.

APPLICATION:

The casting, injection or pumping process has to be carried out immediately.

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, 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.