PAGEL®

PAGEL®-STEEL-FIBRE-GROUT

V1A/40
V1A/80
V1A15/30
V1A15/50

PROPERTIES

- V1A/40 (0-4 mm) grouting height 40–70 mm
  V1A/80 (0-8 mm) grouting height 60–200 mm
  V1A15/30 (0-3 mm) grouting height 40–80 mm
  V1A15/50 (0-5 mm) grouting height 60–120 mm
- cement-based **non shrink grout** with steelfibre-reinforcement
- develops **high early and final strength** as well as high adhesion
- **improves** the bending strength as well as shear- and impact strength to quite some extent
- **waterproof** and largely oil-resistant, at the same time the corrosion process is being delayed
- **develops high load-bearing** as well as high resistance to mechanical burden like beating, grinding and rubbing
- it **proved** itself especially when having combined burdens such as impulse-like tension redirections which appear in practice when having overloads for a short time
- distinguishes itself as s**uitable grouting material** at places where for constructive reasons no reinforcement can be installed
- **steel-fibre reinforcement** improves the heat conductivity, compulsory tensions as a result of temperature do in principle occur less and are being taken up better
- it is delivered also with basalt additives for heat areas and is short-term resistant up to 500 °C
- **company is certified according DIN EN ISO 9001:2008**

Moisture classes in reference to concrete corrosion caused by alkaline silica reactions

moisture class	WO	WF	WA	WS
	dry	damp	damp • external alkali supply	damp • external alkali supply • strong dynamic stress
V1A	•	•	•	•

All of the aggregates used in PAGEL products are obtained from safe sources and correspond with the alkali sensitivity class E1 as specified under DIN EN 12620.

FIELDS OF APPLICATION

- **rails and heavy load foundations**
- especially highly used **construction parts**
- employable in particular when having **heavily-stressed structural members** of low heights
- grouting of **large foundations**
- steelworks in the heat area (short-term up to 500 °C) with basalt surcharge

Assigning to expositioncategory according to:
DIN 1045-2 / EN 206-1

V1A PAGEL – STAHLFASERVERGUSS

	X0	XC 1234	XD 123	XS 123	XF 1234	XA 123	XM 123
V1A/40	•	• • • •	• • •	• • •	• • • •	• •	•
V1A/80	•	• • • •	• • •	• • •	• • • •	• •	•
V1A15/30	•	• • • •	• • •	• • •	• • • •	• •	•
V1A15/50	•	• • • •	• • •	• • •	• • • •	• •	•

PAGEL®-STEEL-FIBRE GROUT

V1A/40

V1A/80

V1A15/30

V1A15/50

TECHNICAL DATA

TYPE			V1A/40	V1A/80	V1A15/30	V1A15/50
grain size		mm	0–4	0–8	0–3	0–5
grouting height		mm	40–70	60–200	40–80	60–120
amount of water		%	14–16	10–12	14–16	10–12
consumption		app. kg/dm³	app. 2.0	app. 2.1	app. 2.0	app. 2.2
density of freshly mixed mortar		app. kg/dm³	app. 2.25	app. 2.3	app. 2.35	app. 2.5
processing time		20 °C min.	app. 60	app. 60	app. 60	app. 60
flowability	5 min.	∅ in cm	≥ 65	≥ 60	≥ 60	≥ 60
expansion	24 h	Vol.%	+ 0.5	+ 0.5	+ 0.5	+ 0.5
compressive strength* EN 12390-3 cube 150 mm	24 h	N/mm²	≥ 40	≥ 40	≥ 45	≥ 45
	7 d	N/mm²	≥ 70	≥ 70	≥ 70	≥ 70
	28 d	N/mm²	≥ 80	≥ 80	≥ 80	≥ 80
bending strength EN 196-1 (prism) EN 12390-5 (beam)	24 h	N/mm²	≥ 6	–	≥ 6	≥ 6
	7 d	N/mm²	≥ 7	–	≥ 8	≥ 8
	28 d	N/mm²	≥ 10	–	≥ 10	≥ 10

All test data are guide values, proofed in our German manufacturing plants, - values from other manufacturing plants may vary.

* DIN EN 196-1-compliant compressive strength testing; DIN EN 12390-3-compliant compressive strength testing
All of the test values provided correspond to DafStb VeBMR – directive

supplied in: 25-kg-bag, euro-pallet 1,000 kg
shelf-life: 12 months. Cool, dry, free from frost. Unopened in its original packaging.
hazard Class: no dangerous substance follow safety data sheet
giscode: ZP1

PAGEL GROUT
cement: DIN EN 197-1 compliant
aggregates: EN 12620 compliant
additives: EN 450, AbZ, EN13263 compliant (quick ash, microsilica etc.)
additional substances: DIN EN 934-4 compliant

PROCESSING

SUBSTANCE: Clean thoroughly. Remove loose and adhesion-restricting parts and cement sludge by using high-pressure water jets or other equipment down to the load-bearing grain structure. Approximately 6 hours before grouting pre-wet to saturation.

FORMWORK: Must be of rigid construction, with sand or dry mortar being placed around the concrete base carefully to prevent leakage.

MIXING: The grout is ready-to-use, it only has to be mixed with water. Pour water into the forced mixer except for a residual quantity, add dry mortar and mix for approx. 3 minutes; add rest of the water and mix for a further 2 minutes. With other types of mixer allow longer mixing periods if required. The grouting process should proceed directly.

Temperature limit: +5 °C to +35 °C

GROUT: The mixture should be poured from one side or corner only in one continuous pour. When using large quantities of grout, we recommend pouring the grout starting at the centre of the base plate. In problem areas or on narrow base casts, the product must be brushed into the slightly damp, air-dried concrete substrate in the same consistency and coated wet-on-wet. The grout must not project further over the edge of the base cast than the base cast's height if this is structurally necessary in order to transfer the load. If it is not structurally necessary for the grout to project over the edge of the base cast, the shuttering for the grouting should set such as to create the smallest possible protrusion e.g. 50-70 mm.

CURING: The grout surface must be protected as quickly as possible against premature water evaporation after application or, at the latest, when the surface starts to set, by being kept damp, e.g. using a water nebuliser and wind-tight sheeting or jute sheets that are to be kept wet.

PAGEL®
SPEZIAL-BETON GMBH & CO.KG
WOLFSBANKRING 9 · 45355 ESSEN · GERMANY
TEL. +49 201 68504-0 · FAX +49 201 68504-31
INTERNET WWW.PAGEL.COM · E-MAIL INFO@PAGEL.COM

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