

PAGEL®-STEEL-FIBRE-GROUT

PROPERTIES

- cement-based **non shrink grout** with steel-fibre-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 **suitable 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
- is subject to our own **constant controlling** in accordance with the recognized standards and guidelines. Product is certified in accordance with **ISO 9001**.
- V1A consists of the following products
 - V1A/40 (0-4 mm) grouting height 40-100 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

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

V1A/40

V1A/80

V1A15/30

V1A15/50

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

V1A PAGEL - STAHLFASERVERGUSS

	X 0	XC 1 2 3 4	XD 1 2 3	XS 1 2 3	XF 1 2 3 4	XA 1 2 3	XM 1 2 3
V1A/40	•	••••	•••	•••	••••	••	•
V1A/80	•	••••	•••	•••	••••	••	•
V1A15/30	•	••••	•••	•••	••••	••	•
V1A15/50	•	••••	•••	•••	••••	••	•



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/dm ³	2.0	2.1	2.0	2.2
density of freshly mixed mortar	app. kg/dm ³	2.25	2.3	2.35	2.5
processing time	20°C min.	app. 60	app. 60	app. 60	app. 60
flowability	5 min. Ø in cm	≥ 65	≥ 60	≥ 60	≥ 60
expansion	24 h Vol. %	+ 0.5	+ 0.5	+ 0.5	+ 0.5
compressive strength*	24 h N/mm ²	≥ 40	≥ 40	≥ 45	≥ 45
EN 12390-3	7 d N/mm ²	≥ 70	≥ 70	≥ 70	≥ 70
cube 150 mm	28 d N/mm ²	≥ 80	≥ 80	≥ 80	≥ 80
bending strength	24 h N/mm ²	≥ 6	-	≥ 6	≥ 6
EN 196-1 (prism)	7 d N/mm ²	≥ 7	-	≥ 8	≥ 8
EN 12390-5 (beam)	28 d N/mm ²	≥ 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 bags
Shelf-life: 9 months in original sealed bags, dry
Hazard Class: No dangerous goods observe security instructions
GISCODE: ZP1



CE Mark and EC conformity
 according to EN 934-4:2001/A1:2004
 Reg.-No.: 0921-BPR-2010
 EN 934-4 compliant grout additive

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 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.

Die Angaben des Prospektes, die anwendungstechnische Beratung und sonstige Empfehlungen beruhen auf umfangreichen Forschungsarbeiten und Erfahrungen. Sie sind jedoch - auch in Bezug auf Schutzrechte Dritter - unverbindlich und befreien den Kunden nicht davon, die Produkte und Verfahren auf ihre Eignung für den Einsatzzweck selbst zu prüfen. Die angegebenen Prüfdaten wurden im Normalklima nach DIN 50014 ermittelt. Es handelt sich um Durchschnittswerte und -analysen. Abweichungen sind bei Anlieferung möglich. Abweichende Empfehlungen von diesem Prospekt bedürfen der schriftlichen Bestätigung. Planer und Verarbeiter sind angehalten, sich jeweils über den neuesten Stand der Technik und die jeweils gültige Ausgabe dieses Prospektes kundig zu machen. Unser Kundendienst hilft Ihnen jederzeit gerne, und wir freuen uns über das von Ihnen gezeigte Interesse. Mit dem Erscheinen dieser Ausgabe sind die vorausgegangenen Produktinformationen ungültig. Die jeweils aktuelle und gültige Fassung ist im Internet unter www.pagel.com abrufbar.



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