



## 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 16,900 °F
- 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 (0-0.16 inch) grouting height 1.57- 2.76 inch
  - V1A /80 (0-0.31 inch) grouting height 2.36- 7.87 inch
  - V1A15/30 (0-0.12 inch) grouting height 1.57- 2.36 inch with **basalt surcharge**
  - V1A15/50 (0-0.2 inch) grouting height 2.36- 4.72 inch with **basalt surcharge**

### 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 16,900 °F) with basalt surcharge

V1A/40<sup>U</sup><sub>S</sub>

V1A/80<sup>U</sup><sub>S</sub>

V1A15/30<sup>U</sup><sub>S</sub>

V1A15/50<sup>U</sup><sub>S</sub>



# PAGEL®-STEEL-FIBRE GROUT

V1A/40<sub>g</sub>

V1A/80<sub>g</sub>

V1A15/30<sub>g</sub>

V1A15/50<sub>g</sub>

## TECHNICAL DATA

TYPE		V1A/40	V1A/80	V1A15/30*	V1A15/50*
<b>grain size</b>	inch	0–0.16	0–0.31	0–0.12	0–0.2
<b>grouting height</b>	inch	1.57–2.76	2.36–7.87	1.57–2.36	2.36–4.72
<b>amount of water</b>	%	14–16	10–12	14–16	10–12
<b>compressive strength</b> (DIN 1164)	24 h	PSI	6,815	7,540	6,815
	3 d	PSI	9,570	9,860	9,570
	7 d	PSI	11,310	11,165	12,180
	28 d	PSI	13,340	12,760	14,500
<b>bending strength</b>	24 h	PSI	870	–	1,015
	3 d	PSI	1,160	–	1,160
	7 d	PSI <sup>2</sup>	1,450	–	1,305
	28 d	PSI	1,595	–	1,595
<b>expansion</b>	Vol.%	+ 1,0	+ 1,0	+ 0,5	+ 0,5
<b>consumption (dry mortar)</b>	24h	lbs/ft <sup>3</sup>	1,248,595.4	1,311,025.17	1,311,025.17

\* basalt additive

All test data are values derived.

**supplied in:** 25-kg-container  
**shelf life:** 9 months in sealed container, dry  
**test certificate:** MPA Nr. 21000089-99  
**cement types:** supply may take place with various cement types, however, the technical characteristics will change through this. Should you have any questions, please do not hesitate to contact our advisory service.

**hazard class:** no dangerous substance, observe safety data sheet.

**GISCODE:** ZP1



CE-Mark and EG conformity in accordance to EN 934-4:2002:02  
 Reg.-No.: 0921-BPR-2010  
 Additive for concentrate in accordance EN 934-4:T2

## 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.

**APPLICATION:** The grouting process is to be carried out from one side or corner only and if possible without interruption. For large-area processes we recommend if possible proceeding from the middle of the

plate, grout by using funnel and corresponding tube. First grout the anchor holes (up to the top edge of the anchor hole) and then the machine plate.

Processing time: approx. 30 min. (at 1,014 °F)  
 approx. 45 min. (at 676 °F)  
 approx. 90 min. (at 169 °F)

**NOTE:** Open surfaces are to be protected against wind, draughts and premature water evaporation e.g. with film or O1 PAGEL-SURFACE PROTECTION. The edge of the grouting should not be wider than approx. 50 mm. In case of frost, please get in contact with us; lower temperatures delay the development of strength and do reduce flow ability, higher temperatures accelerate the same; colder preparation water interferes with flow ability.

The information provided in this leaflet, is supplied by our consulting service and is the end result of exhaustive research work and extensive experience. They are, however, without liability on our part, in particular with regard to third parties proprietary rights, and do not relieve the user of the responsibility for verifying that the products and processes are suitable for the intended application. The data presented was derived from tests under normal climate conditions according to DIN 50014 and mean average values and analysis. Deviations are possible when delivery takes place. Given that recommendations may differ from those shown in this leaflet written confirmation should be sought. It is the responsibility of the purchaser to ensure they have the latest leaflet issue and that its contents are current. 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. Please find the latest leaflet issues at [www.pagel.com](http://www.pagel.com).



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