

PAGEL® SUPER HIGH STRENGTH GROUT

V 1/6OHF

PROPERTIES

- cementitious and chloride-free
- frost and deicing-salt resistant CDF-tested in compliance with DIN CEN/TS 12390-9
- controlled and even expansion
- microsilica modified
- impermeable to water and highly resistant against oils and fuels
- certified to fire protection class A1 as specified by EN 13501 and DIN 4102
- vapour permeable
- high fatigue resistance
- absorbs vibrations
- pumpable and easy to pour
- complies with the DafStb Directive (VeBMR) on the "Manufacture and use of cementitious concrete and grout"
- externally tested and factory quality controlled in compliance with the DafStb VeBMR Directive
- company is certified according DIN EN ISO 9001:2008

FIELDS OF APPLICATION

- turbines, compressors
- wind turbines, cast joints
- portal and container transport systems

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
V 1/6OHF	•	•	•	•

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.

Exposure class according to:
DIN 1045-2 and EN 206-1

PAGEL - SUPER HIGH STRENGTH GROUT

	XO 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
V 1/6OHF	•	• • • •	• • •	• • •	• • • • •	• •	•



CE	
0921	
PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 11 110932 EN 1504-6:2006 Anchoring product EN 1504-6: ZA.1	
Pull-out	≤ 0.6 mm
Chloride ion content	≤ 0.05 %
Reaction to fire	A1



TECHNICAL DATA			
TYPE	V 1 / 60HF		
grain size	mm		0-6
coating thickness	mm		40-400
amount of water	%	max.	9
consumption (dry mortar)	app. kg/dm ³		2.30
density of freshly mixed mortar	app. kg/dm ³		2.45
working time	20 °C	app. min	60
slump flow	5 min	cm	-
	30 min	cm	-
slump	5 min	cm	≥ 60
	30 min	cm	≥ 52
expansion	24 h	Vol. %	≥ + 0.1
compressive strength*	24 h	N/mm ²	≥ 70
	7 d	N/mm ²	≥ 90
	28 d	N/mm ²	≥ 115
	56 d	N/mm ²	≥ 120
	91 d	N/mm ²	≥ 120

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

* Grout compressive strength tested as specified by DIN EN 196-1;
Concrete compressive strength tested as specified by DIN EN 12390-3

All of the test values provided correspond to DAfStb VeBMR - Directive
Tests of fresh and hardened grout at 20°C ± 2°C, storage of the test pieces after 24 hours until the strength test in water at 20°C ± 2°C. Higher or lower temperatures result in deviating properties and test results of the fresh/hardened grout. Depending on the temperature the consistency can be adapted by a slight reduction of the mixing water.

storage: 12 months. Cool, dry, free from frost.
Unopened in its original packaging.

packaging: 20-kg bag, euro-pallet 960 kg,
1000-kg-Big-Bag

hazard class: no dangerous substance follow
safety data sheet

giscode: ZP1

APPLICATION

SUBSTRATE: Clean thoroughly, remove all loose and unsound material such as cement slurry etc using a grit or water jet blaster or similar until the underlying grain structure is reached. The underlying substrate must have sufficient pull-off strength (i.m. ≥ 1.5 N/mm²). Remove all of the rust from any exposed reinforcement bars with a sandblaster (Sa 2 1/2 as specified under DIN EN ISO 12944-4). Wet the surface approx. 6-24 hours before grouting until capillary saturation.

FORMWORK: Attach in such a way that it is leak proof and robust. Seal around concrete base with, e.g. sand or dry mortar.

MIXING: The grout is supplied ready for use and only needs to be mixed with water. Measure out the quantity of water specified on the packaging 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 another 2 minutes until it forms a uniform mass. Depending on the existing mixer longer mixing times may be required. Once the grout is ready mixed, apply immediately. If using a mixing and delivery pump and outputting material continuously,

we recommend installing an agitator downstream of the mixing and delivery pump to ensure that the material is properly mixed. If using a mixing and delivery pump such as: PABEC II; we recommend the agitator: Putzmeister Dynamat.

MIXING WATER: Drinking water quality

GROUTING: The mixture must be poured from one side or corner only in one continuous pour. When grouting large areas, we recommend to pour the grout starting in the centre of the foundation plate, using a funnel or delivery house. On machine installations, cavities should be filled first (up to around just below the top edge) and then the base of the machine or similar.

CAUTION: On completion of the grouting, exposed areas must be immediately protected from premature water evaporation for a period of 3-5 days (wind, drafts, direct sunlight).

Methods that can be used to protect the grout:

Misting the grout with water, covering it with foil and strips of felt, thermal insulation or a material that retains moisture, O1 PAGEL EVAPORATION PROTECTION. When using O1 PAGEL EVAPORATION PROTECTION, observe the information on the Technical Data Sheet O1 PAGEL EVAPORATION PROTECTION.

Temperature limits for application (substrate, air and grout temperature): +5 °C to +35 °C

Applying the concrete in low temperatures and using cold mixing water will delay the concrete's strength development, require that it is intensely mixed and will reduce its flowability.

High temperatures speed it up.

Protruding grout: Do not exceed the specified 50 mm when allowing grout to protrude and observe the structural specifications. When grouting dynamically stressed and prestressed base plates and machine foundations that are subject to high compression strengths at the edges, the grout should ideally be applied to be flush with the bearing plate, provided with a 45° edge using formwork or cut off flush with the bearing plate before it has set. This will prevent any stresses from becoming superimposed on one another and from becoming annihilated (observe static and structural specifications).

Non-iron metals: Cement and cementitious building materials may cause non-iron-metals (e.g. aluminium, copper, zinc) to loosen or come off where they are tied in. Please contact us for technical advice.

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

Classification according to DAfStb VeBMR - Directive
Product: PAGEL - GROUT

Classification according to DAfStb VeBMR - Directive Product: PAGEL - GROUT	
	V 1 / 60 HF
flowability class	a2
shrinkage class	SKVB 0
early strength class	A
compressive strength class	C100/115

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.



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