

PAGEL®-ANCHOR- AND INJECTION-GROUT

Injection Material for filling voids

PROPERTIES

- **high flow capacity**, cement based, non shrink
- **free of aggregates**
- **easy to process**, needs only to be stirred with water
- develops high **early and final strengths** and great adhesive tension
- **impervious to water** and extensively resistant to oil, checks corrosion at the same time
- is subject to our own **constant controlling** in accordance with the recognized standards and guidelines - the production is certified in accordance with **ISO 9001**.
- E1F consists of the following products:
 E2F PAGEL-ANCHOR-AND INJECTION-GROUT FAST SETTING

FIELDS OF APPLICATION

- **fixing** of anchorings in rock material, in the ground, in concrete and in masonry
- injection of cracks, joints, gravel patches and cavities in vertical and horizontal positions

E1F

E2F



PAGEL®-ANCHOR-AND INJECTION-GROUT

E 1 F

E 2 F

TECHNICAL DATA				
TYPE			E 1 F	E 2 F
grainsize	mm	< 0.15	< 0.15	
quantity of water	%	30–35	38–40	
consumption	kg/dm ³	1.5	1.5	
density of freshly mixed mortar	kg/dm ³	1.965	1.987	
adhesive Tension			≥ 4.8	≥ 4.4
measure of flow	5 min.	cm	138	–
	60 min.	cm	115	–
measure of time (Marsch: 8 mm nozzle)	5 min.	s	26	–
	60 min.	s	37	–
expansion	24h	Vol.%	+ 0.5	+ 0.5
	28 d	Vol.%	+ 0.3	+ 0.4
compressive strength (DIN1164)	2 h	N/mm ²	–	≥ 8
	4 h	N/mm ²	–	≥ 10
	24 h	N/mm ²	≥ 30	≥ 30
	7 d	N/mm ²	≥ 45	≥ 40
	28 d	N/mm ²	≥ 60	≥ 50
bending strength	2 h	N/mm ²	–	≥ 1
	4 h	N/mm ²	–	≥ 2
	24 h	N/mm ²	≥ 4	≥ 6
	7 d	N/mm ²	≥ 6	≥ 7
	28 d	N/mm ²	≥ 7	≥ 9

All test data are guide values only.

supplied in: 20-kg-bags
storage: dry
shelf-life: 9 months in sealed bags
types of Cement: Other types of cement can also be supplied although the technical properties are changed as a result. If you have any queries, please get in touch with our Customer Services.

The adhesive tension was measured with M33-anchor, an adhesion distance of 1 m and a drill hole of 48 mm Ø

Viscosity (DIN 53211), 8 mm Ø: 12 seconds: immediate
 20 seconds: 30 minutes



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

SUBSTRATE: Carefully clean, remove loose and adhesion-reducing parts as well as cement slurry. Pre-wet sufficiently.

MIXING: Apart from a residual quantity, pour the water into the forced-circulation mixer. Add dry mortar and mix for approx. 3 minutes. Add the rest of the water and mix for a further 2 minutes.

PROCESSING: : The casting, injection or pumping process should proceed directly.

Processing time: E 1 F E 2 F

app. 45 min.	app. 10 min.	(at 30 °C)
app. 60 min.	app. 15 min.	(at 20 °C)
app. 90 min.	app. 15 min.	(at 5 °C)

CAUTION: Protect exposed surfaces against wind, draughts and premature water evaporation e.g. with plastic foil or O1 PAGEL-SURFACE-PROTECTION.

In the event of frost, please get in contact with us; lower temperatures delay the development of strength and reduce flow capacity, higher temperatures accelerate these; colder preparation water interferes with flow capacity.

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 · D-45355 ESSEN
 TEL. +49 (0)2 01-6 85 04-0 · FAX +49 (0)2 01-6 85 04-31
 INTERNET: WWW.PAGEL.COM · E-MAIL: INFO@PAGEL.COM