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PAGEL®

PAGEL®-LEVELLING-SCREED

FE20

PROPERTIES

- **high-quality cement-bound levelling screed** based on Portland Cement, of high density for internal and external applications
- consists of just one component, when mixed with water it is **ready for use**
- **high flowability,** it is easy to use and therefore **very** economical
- develops **high early-strength** (24 h approx. 25 N/mm² / 20 °C) and can be walked on after 3 hours (20 °C)
- low **residual moisture** (after 24 h > 4.0 vol.% / 20 °C) makes a following coating possible after 2 hours
- the surface can be prepared in either **smooth or sand dressed** finish
- through machine installation (pumping) **application time can be reduced** and **building progress can be increased**
- resistant to frost and dew-salt, impervious to water and resistant to oil and chemicals
- plastic fibres (alkali resistant) allow **a joint free installation** with the exception of building joints
- CE conformity in accordance with DIN EN 13813: 2002 screed mortar and screed masses
- is subject to our own constant **company-owned production control (WPK)**
- is monitored in accordance with the valid standards and guidelines in force and production is certified in accordance with **ISO 9001**

CE

PAGEL® Spezial-Beton GmbH & Co. KG
D-45355 Essen

find the printed batch number

EN 13813 CT C50 F7 A15

FE20 PAGEL®-LEVELLING SCREED
CEMENT SCREED

Fire behaviour	$A1_{fl}$
Compressive strength	C50
Bending tensile strength	F7
Release of corrosive substances	CT
Water permeability	NPD
Water vapour permeability	NPD
Abrasion resistance	A15
Sound insulation	NPD
Sound absorption	NPD
Thermal insulation	NPD
Resistance to chemicals	NPD

NPD: „No Performance Determined"

FIELDS OF APPLICATION

- composite screed for industrial floors and balance layers up to a gradient of 1.5 %
- screed linings for living and industrial-buildings inside and outside
- concrete-floors, industrial- and storage halls
- garages, parking places and balconies
- terraces and cellars
- floor for linings and coatings

Assigning to expositioncategory according to:
DIN 1045-2 / EN 206-1:
FE20 PAGEL – LEVELLING SCREED

	XO 1	XC 1 2 3	XD 1 2 3	XS 1 2 3	XF 1 2 3 4	XA 1 2 3	XM 1 2 3
FE20	•	• • •	• • •	• • •	• • • •	• •	• •

CE
PAGEL Spezial-Beton Wolfsbankring 9 45355 Essen
find the printed batch number
CT C50 F7 A15
cement based screed for applications having inside and outside reactions
EN 13813

PAGEL®-LEVELLING-SCREED

FE20

TECHNICAL DATA

TYPE			FE 20
Grain size		mm	0–2,0
Layer thickness		mm	5–20
Quantity of water		%	17–19
Consumption		kg/dm³	1,8
Processing time 20°C		Minuten	app. 15
Measure of flow		mm	720
Measure of extension		mm	app. 300
Viscosity		%	+ 0,5
Density of freshly mixed mortar		kg/dm³	2,11
Compressive strength* (DIN 1164)	1 d	N/mm²	≥ 25
	7 d	N/mm²	≥ 45
	28 d	N/mm²	≥ 55
Bending strength	1d	N/mm²	≥ 4
	7 d	N/mm²	≥ 6
	28 d	N/mm²	≥ 8

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

Supplied in: 25 kg bags
Storage: dry, frost-free
Shelf-life: 6 months in sealed bags
Hazard Class: no dangerous goods
observe security instructions
Resistance to wear and tear: BCA check after
DIN 13892-4 = 0,107cm³ and 4µm
Reistance class AR 0,5 (≤ 50 µm)
Requirements: EN 13813 for cementous SVM ≤ AR6 (≤ 600 µm)
EFNARC for cementous
Industrial floors ≤ AR2 (≤ 200 µm)

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PROCESSING

Carefully clean, remove loose and unsound material as well as cement slurries etc. by scrabbling or blasting. The subsoil must have a sufficient adhesive strength of at least > 1,5 N/mm². In case preparing takes place using either a cutter or under high water pressure the subsoil must be treated by shot peening (in the cross way). The subsoil must be free of cracks and rough (capillary open). Average out excarvations and deeper unevenesses (for example by applying PAGEL U10-Adhesion-Layer and PAGEL U40- and/or PAGEL U80-LEVEL-REGULATING MORTAR. Pre-water till saturation (12 – 24 hours), stagnant water must be sucked. The self-levelling floor is applied onto the matt-damp subsoil.

FORMWORK AND JOINTS: Enclose if necessary the concrete area to be coated using a formwork (not porous). Structural joints must be taken on. 24 hours after applying FE20 recut the coating above the structural joints. Levelling takes place by using a gauge and/or rails.

MIXING: To mix FE20 use a compulsory type mixer only:

- hand-mixing machine with slow working contra-rotating mixing arms
- plate mixer
- continuous mixer with a mono pump

When mixing bags fill in approx ³/4 of the water amount, add the dry mortar and mix for about 3 minutes, add the remaining water and mix for further 2 minutes. Do not mix more FE20 mortar than you are able to use within 30 minutes.

PROCESSING (by hand): Pour FE20 onto the matt damp subsoil, spread out and level by using a tooth screed. Once a rough subsoil has been applied spread the mortar using a smoothing screed, without skids in a thin layer using the same as a level regulating mortar and an adhesion layer. Then apply FE20 in the required layer thickness “fresh-in-fresh”. Ventilating with a spiked roller is only necessary when air bubbles rise through the mortar to the surface. The mortar is to be levelled and spread with the help of a turned round screeder – as a finishing float – above the aligned level point.

PROCESSING (mechanically): FE20 may be mixed by using the continuous mixer “Uelzener-Estromat 402” and with the help of a mono pump PFT N2V (Vario) the material can be conveyed. In case of a variating water pressure a pressure increasing pump can be connected. Convey the mortar out of the mixing pipe into the pump and out of the pump by using a tube with the maximum length of 40 m and a diameter of 35 mm. Having a max. conveying speed may depend on the capacity of the worm conveyor, 2,500 kg/h is feasable.

CURING: FE20 can normally be walked on after 2-3 hours. Surface protection is necessary to prevent wind, draught and premature evaporation. It needs to be applied for approx. 3 days using a product such as O1 PAGEL-EVAPORATION-PROTECTION or by spraying water and/or using a plastic foil. In case quartz sand (grain) is to be spread onto the surface this has to take place within 30 minutes. After 12 hours at the earliest remove any loose sand by brushing-off or hoovering. Make sure that the surface is still wet for approx. 3 days.

COATING: In case of a following coating with for example reaction resin a curing time of 12 hours using water and/or plastic foil is sufficient. After 12 hours the surface can be prepared for coating by using either a screed grinding- or a shot peening machine. (Residual moisture after 24 h: 4 vol.%/20°C)

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