

Technical Data Sheet

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® KERANOL VE 120

Electrically discharging jointing mortar based on synthetic resins for tile linings Exposed to severe process conditions

Description

KERANOL VE 120 is a three-component bedding and jointing mortar based on vinyl ester resin (Novolak).

Typical uses

KERANOL VE 120 is recommended as a bedding and jointing material for tile applications that are exposed to aggressive, oxidizing media as well as to concentrated acids or solvents. KERANOL VE 120 is especially suitable for applications in which the corrosion protection system must withstand high temperatures and severe oxidizing loads.

The main fields of application include tile applications in the chemical process industry, cellulose industry and pickling plants.

Properties

KERANOL VE 120 exhibits good mechanical properties and offers excellent chemical resistance even under high temperature loads.

In addition to its resistance to oxidizing media, KERANOL VE 120 stands out for its excellent resistance to numerous organic compounds (solvents, organic acids).

Chemical resistance

Information regarding the chemical resistance properties is available upon request.

Substrate

The substrate consists of the tile bedding material (bedding cement: e. g. KERANOL VE 310, VE 311) and acidproof split tiles.

Surface pretreatment

The joints must be free from parting compounds and impurities. The tile surface is protected with KCH separating varnish 3 and KCH separating varnish 1 prior to application of the mortar.

Application

KERANOL VE 120 consists of a three-component mortar compound.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
KCH VE solution 35	100	2.00
KCH UP hardener 1	2	0.04
KCH powder 44L	240	4.20

Work the mortar compound into the joints, pressing it down and smoothing it out with a rubber-faced spreader. Remove the separating varnish once the mortar has hardened.

Pot life

Temperature	KERANOL VE 120
15 °C	approx. 60 minutes
20 °C	approx. 45 minutes
30 °C	approx. 30 minutes

Consumption

KCH separating varnish 3: approx. 0.05 kg/m²
KCH separating varnish 1: approx. 0.3 kg/m² per application

Jointing Mortar:

Split tiles 240 x 115 x 15 approx. 2.7 kg/m²
Split tiles 240 x 115 x 20 approx. 3.7 kg/m²
Split tiles 240 x 115 x 25 approx. 4.8 kg/m²
Split tiles 240 x 115 x 30 approx. 5.2 kg/m²

Packing

The products are shipped in the following standard packing units:

KCH VE solution 35 20 kg
KCH UP hardener 1 0.04 kg
KCH powder 44L 20 kg
KCH separating varnish 1 10 kg
KCH separating varnish 3 5 kg

Storage

The products shall be stored in a cool and dry place. With a storage temperature of 23 °C the minimum shelf life is as follows:

KCH VE solution 35 3 months
KCH VE solution 35 < 15 °C 6 months
KCH UP hardener 1 6 months
KCH powder 44L 24 months
KCH separating varnish 1 12 months
KCH separating varnish 3 4 months

Higher temperatures will shorten the shelf life of this products. The packaging drums are to be kept tightly shut and are to be resealed each time material has been removed. All liquid products must be stored frost-free.

Safety

Adequate ventilation is to be provided while work is in progress. Ventilation is compulsory for all work carried out in pits and closed rooms.

All vapours that are produced while work is in progress must be continuously suctioned off at floor or bottom level.

Only the amount of material effectively required to continue work is to be stored at the working place.

The instructions for the prevention of fire and explosion are to be observed if required.

Please note and ensure that even the smallest quantities of the individual components and/or prepared mixtures are not allowed to reach the sewerage.

All regulations for the prevention of accidents stipulated by the employer's liability assurance association, the regulations for the prevention of accidents prescribed at the site of application and the TRGS 507 „Surface treatment in rooms and tanks“, as well as the safety precautions listed on the packing (label) required by the provisions of the Hazardous Materials Ordinance shall be adhered to. The operating instructions pursuant to § 14 GefStoffV as well as the EC safety data sheets are to be complied with.

Technical data	Test specification	Unit	Parameter
Density	DIN EN ISO 1183-1	g/cm ³	1.85
Compressive strength	DIN EN ISO 604	MPa	85
Modulus of Elasticity (compression test)	DIN EN ISO 604	MPa	7.800
Adhesive strength ^{*)}	DIN EN 24624	MPa	> 3
Hardness	DIN 53505	Shore D	80
Leakage resistance to earth	DIN EN ISO 1081	Ohm	< 10 ⁶
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	35 · 10 ⁻⁶
Max. operating temperature		°C	120

^{*)} to vinyl ester resin sealing layer

The technical data contained herein represents the current state of our product knowledge and is intended to furnish general information regarding our products and their application spectrum. In view of the diversity and multitude of application possibilities, this data should be regarded solely as general information, which does not guarantee any specific properties and/or suitability of these products for each concrete case of application. Consequently, when ordering a product, please contact us for detailed information relative to the properties required for a specific application. Our technical service will, upon request, furnish a profile of characteristics for the concrete application without delay.

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