

Technical Data Sheet

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® KERANOL VE 110

Synthetic resin based jointing mortar for heavily stressed tiling

Description

KERANOL VE 110 is a three-component jointing mortar based on vinyl ester resin.

Typical uses

KERANOL VE 110 is recommended as jointing mortar for ceramic linings.

Its primary spectrum of application is for ceramic surfaces in plants operated by the chemical industry, in neutralisation plants, in heavy traffic and reloading areas as well as in process and waste water treatment facilities.

Properties

KERANOL VE 110 exhibits excellent mechanical properties and is highly resistant to chemicals even when exposed to high thermal loads.

Additionally to its resistance to oxidising substances and strong acids, it is highly suitable for application with exposure to a number of organic compounds. The application of KERANOL VE 110 as jointing mortar will ensure a smooth joint finish. This product is available in natural colour tone.

Chemical resistance

Information on the chemical resistance properties will be provided on request.

Substrate

The substrate is defined as the ceramic bedding material (bedding mortar, e.g. KERANOL VE 310) and acid-proof split tiles.

Surface pretreatment

The joints must be free of any substances that may act as separating agents as well as any impurities. The tile surface is to be protected with KCH separating varnish 3 and KCH separating varnish 1 prior to mortar application.

Application

KERANOL VE 110 consists of a triple-component mortar compound.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
KCH VE solution 21	100	2.00
KCH UP hardener 2	3	1 bag (60 g)
KCH powder 51	300	4.50

Pack joints with the mortar mixture and press in thoroughly with rubber-faced spreader and smoothen afterwards. Scrape off the varnish from the cured mortar.

Pot life

Temperature	KERANOL VE 110
15°C	~ 40 minutes
20°C	~ 30 minutes
30°C	~ 12 minutes

Coverage

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. 2.5 kg/m²
Split tiles 240 x 115 x 20 approx. 3.5 kg/m²
Split tiles 240 x 115 x 25 approx. 4.5 kg/m²
Split tiles 240 x 115 x 30 approx. 5.0 kg/m²

Packing

The following standard quantities are available:

KCH VE solution 21 20 kg
KCH UP hardener 2 Bag 60 g
KCH powder 51 25 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 20°C the minimum shelf life is as follows:

KCH VE solution 21 6 months
KCH VE solution 21 < 15 °C 9 months
KCH UP hardener 2 6 months
KCH powder 51 24 months
KCH separating varnish 1 12 months

KCH separating varnish 3 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.

4 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	1.8
Compressive strength	DIN EN ISO 604	MPa	80
E-module (compression test)	DIN EN ISO 604	MPa	7,500
Adhesiveness to tile/bricks	DIN EN 24624	MPa	> 3
Hardness	DIN 53505	Shore D	80
Dissipation Resistivity (to ground)	DIN EN ISO 1081	Ω	> 10 ⁹
Linear thermal expansion coefficient	DIN 53752	K ⁻¹	40 · 10 ⁻⁶
Max. operational temperature		°C	100

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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