Technical Data Sheet

33.05.638E – 02/05

® KERAPLAN EP 1101

Self-spreading synthetic resin coating for the protection of concrete areas

Description
KERAPLAN EP 1101 is a jointless, self-spreading, solvent free, nonylphenol- and silicone-free synthetic resin coating based on epoxy resin with mineral fillers. Depending on the requirement the layer thickness may range between 2 and 3 mm.

Solvent free in acc. with **ibh** – recommendation

Typical uses
KERAPLAN EP 1101 is suited to protect concrete and screed surfaces for versatile applications, particularly where surface and visual attractiveness shall meet a higher demand.
KERAPLAN EP 1101 is predominantly used as a flooring material in chemical factories, warehouses and factory buildings, workshops, power plants, breweries, food producing plants, dairies, EDP rooms or clean rooms of the electronic industry, where a high hardness and scratch resistance are required.

Properties
KERAPLAN EP 1101 can be exposed to traffic and mechanical stress, and is resistant to a wide range of chemicals. The coating hardens without shrinking and can be applied without joints.
KERAPLAN EP 1101 is available in a variety of colour tones. Due to the dense, unstructured surface the coating can be easily cleaned. KERAPLAN EP 1101 exhibits a superior hardness and scratch resistance.

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

Substrate
All concrete structures must meet the requirements given in DIN EN 14879-1.

Surface pretreatment
If required, the concrete surface must be treated by means of blasting in such a way that it is free from cement slurries, cement skin, loose and brittle particles, defects and separating substances. The residual moisture of the concrete surface should measure <4%.

Application
KERAPLAN EP 1101 is composed of a two-component Primer and a two-component, self-spreading Top Coat. All materials required for Primer and Top Coat are delivered in adjusted bins.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
KCH EP Primer 12		
component A	100	2.00
component B	60	1.30
Keraplan EP 1102		
component A	100	2.00
component B	13	0.46

Thoroughly mix the solution and hardener and apply the compound with a brush or lambskin roller to form a compact Primer film.
Pour the Top Coat compound onto the hardener primer and spread it evenly (approx. 2 mm) using a toothed trowel or blade and roll it over immediately with a spiked roller.

Pot life

Temperature	Primer	Top Coat
20 °C	~ 30 min.	~ 25 min.

Coverage
Primer: approx. 0.3 kg/m²
Top coat: approx. 1.9 kg/m² per mm thickness

Packing
The following standard quantities are available:

KCH EP primer 12 component A	3.13, 12.5 kg
KCH EP primer 12 component B	1.87, 7.5 kg
KERAPLAN EP 1101 component A	26.5 kg
KERAPLAN EP 1101 component B	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 EP primer 12 component A	12 months
KCH EP primer 12 component B	12 months
KERAPLAN EP 1101 component A	12 months
KERAPLAN EP 1101 component B	12 months

Higher temperatures will shorten the shelf life of this products. 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/cm³	1.9
Compressive strength	DIN EN ISO 604	MPa	60
Tensile strength	DIN EN ISO 527	MPa	38
Elongation at tear	DIN EN ISO 527	%	2.2
Flexural strength	DIN EN ISO 178	MPa	74
Adhesive strength (tension) on concrete	DIN EN 24624	MPa	> 3
on bricks	DIN EN 24624	MPa	>3
Modulus of elasticity (tension)	DIN EN ISO 527	MPa	5,560
Modulus of elasticity (bending)	DIN EN ISO 178	MPa	3,855
Hardness	DIN 53505	Shore D	89
Abrasion resistance	ASTM D 4060	mg/1,000 R	10
Coefficient of linear thermal expansion	DIN 53752	K^{-1}	$61 \cdot 10^{-6.}$
Dissipation Resistivity (to earth)	DIN EN 1081	Ω	$> 10^{9}$
Max. operating temperature		°C	80

KCH GROUP GmbH
P.O. Box 11 63, D-56425 Siershahn
Phone: +49 (0) 2623-600-0 / Fax: +49 (0) 2623-600-433 / eMail: info@kch-group.com