

## Technical Data Sheet

33.06.631E – 07/06

### ® KERAPLAN EP 640

**Anti-skid, electrically dissipating synthetic resin coating for the protection of concrete areas**

#### Description

KERAPLAN EP 640 is a jointless, nonylphenol- and silicone-free synthetic resin coating based on epoxy resin with mineral fillers and electrically conductive additives. Complying with the specifications of DIN EN 1081 as well as the directive "Static Electricity" ZH 1/200 issued by the General Council of the Industrial Trade Association this coating is able to dissipate electrostatic load. The layer thickness measures approx. 2 mm.

#### Typical uses

KERAPLAN EP 640 is recommended as a surface protection system for concrete and screed surfaces in a wide variety of applications.

It is primarily used as a flooring material in chemical factories, warehouses and factory buildings as well as areas exposed to traffic.

In view of its dissipating ability for electrostatic load, the application of KERAPLAN EP 640 is highly recommended for all areas where sparking due to potential risk of explosion needs to be prevented.

#### Properties

KERAPLAN EP 640 is a jointless anti-skid flooring material that is resistant to a wide range of chemicals. The coating hardens with no shrinking.

- Slip-resistant (DIN 51 130) R13

#### 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 640 is composed of a three-component, electrically dissipating Primer that is strewn with SiC, and a three-component, electrically dissipating Top Coat.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>Primer</u>		
KCH EP solution 20L	100	2.00
KCH EP hardener 6	43	0.90
KCH conductive agent 5	63	2.50
<u>Top Coat</u>		
KCH EP solution 12L RAL	100	2.00
KCH EP hardener 6	48	1.20
KCH powder 51	100	1.40

Install schematically copper strips in a 5 x 5 m frame onto the substrate to provide a connection to ground potential. Spread the Primer onto the substrate and strew it with KCH powder 32L. Apply the Top Coat onto the hardened Primer, skim the Top Coat over the silica corn using a rubber blade, and level it with a roller.

#### Pot life

Temperature	Primer	Top Coat
15°C	~ 60 min.	~ 60 min.
20°C	~ 45 min.	~ 45 min.
30°C	~ 20 min.	~ 20 min.

#### Coverage

Primer: approx. 0.5 - 0.6 kg/m<sup>2</sup>  
approx. 1.5 - 2.0 kg/m<sup>2</sup> KCH powder 32L

Top Coat: approx. 0.6 kg/m<sup>2</sup>

#### Packing

The following standard quantities are available:

KCH EP solution 20 L	5, 20 kg
KCH EP solution 12 L RAL	20 kg
KCH EP hardener 6	5, 20 kg
KCH conductive agent 5	15 kg
KCH powder 32L	25 kg
KCH powder 51	25 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 solution 20L	12 months
KCH EP solution 12L RAL	12 months
KCH EP hardener 6	12 months
KCH conductive agent 5	24 months
KCH powder 32L	24 months
KCH powder 51	24 months
Copper strips	24 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 <sup>3</sup>	1.9
Compressive strength	DIN EN ISO 604	MPa	65
Tensile strength	DIN EN ISO 527	MPa	17
Elongation at tear	DIN EN ISO 527	%	1.0
Adhesive strength to concrete/ screed <sup>*)</sup>	DIN ISO 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	80
Dissipation Resistivity (to earth)	DIN EN ISO 1081	Ω	< 10 <sup>8</sup>
Coefficient of linear thermal expansion	DIN 53752	K <sup>-1</sup>	55 · 10 <sup>-6</sup>
Max. operating temperature		°C	80

<sup>\*)</sup> compressive strength 25 MPa

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.

**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

تلفن: ۰۴-۲۲۶۴۶۷۸۳ و ۰۱۰-۲۲۶۳۰۶۰۸

شرکت کسری نماینده رسمی KCH آلمان