BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-340 WCT

Epoxy coloured water based tunnel coating

DESCRIPTION

Sikagard®-340 WCT is a 2-part epoxy coloured resin, chemical resistant, internal tunnel concrete coating. Provides a hard wearing, seamless, low maintenance, easily cleanable, gloss finish.

USES

Especially suitable as tunnel wall coating on concrete and cementitious mortar. For tunnel portals, a UV-resistant sealing with Sikafloor-3570 is recommended.

CHARACTERISTICS / ADVANTAGES

- Good chemical and mechanical resistance
- Good adhesion even on matt damp substrates
- Water vapour permeable
- High carbonation protection
- Easy to clea
- Odourless
- Very good wet abrasion resistance
- Easy to apply (can also be sprayed)
- High stability on vertical surfaces

APPROVALS / CERTIFICATES

- Fire behaviour classification according to DIN EN 13501-1/DIN 4102
- Wet abrasion resistance according to DIN EN ISO 11998
- Cleanability according to DIN EN ISO 11998
- Gloss level according to DIN EN ISO 2813
- CE-Marking according EN 1504-2

PRODUCT INFORMATION

Composition	Water based epoxy		
Packaging	Part A Part B	14.60 kg 5.40 kg	
Appearance / Colour	RAL 9010		
Shelf life	12 months from date of production		
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C.		
Density	Part A Part B Mixed resin Values at +23 °C	~ 1.58 kg/litre ~ 1.07 kg/litre ~ 1.39 kg/litre	(EN ISO 2811-1)
Viscosity	~ 1.100 mPa*s at +23 °C (A+B)		

TECHNICAL INFORMATION

Tensile adhesion strength

On concrete: > 1.5 N/mm² (Concrete structure) (ISO 4624)

Temperature resistance

Exposure	Dry heat
Permanent	+50 °C
7 days max	+80 °C
12 hours max	+100 °C

Important: Short-term damp/wet heat, without simultaneous chemical and mechanical stress, up to +80 °C with occasional stress (e.g. during steam cleaning).

APPLICATION INFORMATION

Mixing ratio

Part A : Part B = 73 : 27 (by weight)
Part A : Part B = 65 : 35 (by volume)

Consumption

On concrete

Application	Product	Consumption
Primer	1-2x Sikagard®-340 WCT diluted with 5 % water	0,15-0,20 kg/m²
by hand	1-2x Sikagard®-340 WCT	0,15-0,25 kg/m² per layer
by machine	1-2x Sikagard®-340 WCT	0,15-0,25 kg/m² per layer

OS 2 (OS-B)

Layer	Product	Consumption
Hydrophobic	Sikagard®-740 W	0,10 kg/m²
by hand	2x Sikagard®-340 WCT 1st layer diluted with 5 % water	0,20 kg/m² per layer
by machine	2x Sikagard®-340 WCT 1st layer diluted with 5 % water	0,20 kg/m² per layer

OS 4 (OS-C)

Layer	Product	Consumption
Levelling filler*	Icoment®-520 or Sika MonoTop®-723 DE	4,10 kg/m²
by hand	2x Sikagard®-340 WCT 1st layer diluted with 5 % water	0,20 kg/m² per layer
by machine	2x Sikagard®-340 WCT 1st layer diluted with 5 % water	0,20 kg/m² per layer

* Levelling filler (pore closure and levelling)

Important: This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Ambient air temperature	Min. +10 °C Max. +30 °C
Relative air humidity	Max. 75 %
Dew point	Beware of condensation. The substrate and uncured applied material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the coating finish.
Substrate temperature	Min. +10 °C Max. +30 °C
Substrate moisture content	≤ 6 % (w/w-%)

Pot Life

Temperature	+10 °C	+20 °C	+30 °C
Sikagard®-340 WCT	~ 150 minutes	~ 90 minutes	~ 60 minutes

Waiting time to overcoating

Sikagard®-340 WCT at Sikagard®-340 WCT

Substrate Temperature	+10 °C	+20 °C	+30 °C
Sikagard®-340 WCT	min. 180 minutes max. 7 days	min. 180 minutes max. 7 days	min. 150 minutes max. 7 days

Sikagard®-340 WCT at Icoment®-520 Mörtel (Sika® MonoTop-723 DE)

Substrate Temperature	+10 °C	+20 °C	+30 °C
Sikagard®-340 WCT	24 hours (3d)	24 hours (3d)	24 hours (3d)

Drying time

Temperature	+10 °C	+20 °C	+30 °C
Tack free	~24 hours	~6 hours	~3 hours
Easily loadable	~5 days	~3 days	~2 days
Completely cured	~10 days	~7 days	~5 days

Important: These are theoretical values and are influenced by changing weather conditions.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- With a relative humidity of ≥75 %, the waiting time between the layers is extended by 24 hours.
- In closed rooms, always ensure sufficient aeration until complete curing.
- Protect freshly applied Sikagard®-340 WCT from rain, condensation and water for at least 24 hours.
- The gloss of the applied material is influenced by humidity, temperature, waiting time and porosity of the substrate.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data. Further notes and information data sheets on product safety and disposal can be found on the Internet at www.sika.de.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The concrete substrate must be structurally sound and have a minimum pull-off / tensile adhesion strength of 1.5 N/mm².
The substrate must be clean, dry and free of all contaminants.
We generally recommend preparation of a test / reference sample area on each project.

APPLICATION

Mixing
Before mixing the Sikagard®-340 WCT components together, stir part A by mechanical means. Mix parts A + B thoroughly in the specified ratio with an electric mixer (300 - 400 rpm). The mixing time must be at least 3 minutes and continue until a homogeneous mixture is obtained. Pour the mixed material into a clean container and mix again briefly to ensure that it is fully homogeneous.

Application
Sikagard®-340 WCT can be applied by brush, roller, airless spraying.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Sika Deutschland GmbH
Kornwestheimer Straße 103 - 107
D - 70439 Stuttgart
Telefon: 0711/8009-0
Telefax: 0711/8009-0
E-Mail: info@de.sika.com
www.sika.de