



PRODUCT DATA SHEET

Sikagard®-340 WCT

2-part coloured waterborne epoxy coating for tunnels

PRODUCT DESCRIPTION

Sikagard®-340 WCT is a 2-part coloured, chemically resistant epoxy coating for internal application to concrete tunnels. It provides a hard wearing, seamless, low maintenance, easily cleanable, gloss finish.

WHERE TO USE

The Product is used as a coating for tunnel walls made of concrete or lined with cementitious mortar.

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Good resistance to specific chemicals
- Good mechanical resistance
- Very good abrasion resistance
- Permeable to water vapour
- Very low odour
- Easy to apply
- Easy to clean and maintain

PRODUCT INFORMATION

Composition / Manufacturing	Water based epoxy	
Packaging	Container Part A	14.60 kg
	Container Part B	5.40 kg
	Container Part A + Part B	20 kg
	Refer to the current price list for available packaging variations.	
Shelf Life	12 months from date of production	
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed	

ENVIRONMENTAL INFORMATION

- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

APPROVALS / CERTIFICATES

- CE marking and declaration of performance based on EN 1504-2:2004 Products and systems for the protection and repair of concrete structures — Surface protection systems for concrete — Coating
- Reaction to fire EN 13501-1, Hoch, No. KB-Hoch-180925
- Reaction to fire EN 13501-1, Hoch, No. KB-Hoch-180957
- Reaction to fire 13501-1, Hoch, No. KB-Hoch-180958
- Gloss measurement EN ISO 2813; Wet scrub resistance EN ISO 11998; Cleanability EN ISO 11998, iLF, No. 170988, EN
- Cleaning test – Sikacrete-213 F
- Scratch Resistance BS EN ISO 1518-1, SOCOTEC , No. COA/06201

packaging in dry conditions at temperatures between +5 °C and +30 °C.
 Always refer to packaging.
 Refer to the current Safety Data Sheet for information on safe handling and storage.

Appearance / Colour	Cured colour	RAL 9010	
	Other colours available upon request.		
Density	Part A	1.58 kg/l	(EN ISO 2811-1)
	Part B	1.07 kg/l	
	Mixed Product	1.39 kg/l	
Viscosity	Mixed resin at +23 °C	1100 mPa·s	

TECHNICAL INFORMATION

Pull-Off Strength	>1.5 N/mm ² (failure in the concrete)	(EN ISO 4624)
Service Temperature	Permanent	+50 °C
	Short-term, maximum 12 hours	+100 °C
	Short-term, maximum 7 days	+80 °C

SYSTEMS

System Structure	ON CONCRETE	
	Layer	Product
	Primer	1-2 × Sikagard®-340 WCT diluted 5 % with water
	Wearing layer	1-2 × Sikagard®-340 WCT
	OS 2 (OS-B)	
	Layer	Product
	Hydrophobic coating	1 × Sikagard®-740 W
	Wearing layer	2 × Sikagard®-340 WCT First layer diluted 5 % with water
	OS 4 (OS-C)	
	Layer	Product
	Levelling filler (pore closure and levelling)	1 × Sika MonoTop®-723 N
	Wearing layer	2 × Sikagard®-340 WCT First layer diluted 5 % with water

APPLICATION INFORMATION

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

Consumption	ON CONCRETE		
	Layer	Product	Consumption
	Primer	Sikagard®-340 WCT diluted 5 % with water	1-2 × 0.15–0.20 kg/m ² per layer
	Wearing layer	Sikagard®-340 WCT	1-2 × 0.15–0.25 kg/m ² per layer
	OS 2 (OS-B)		
	Layer	Product	Consumption
	Hydrophobic coating	Sikagard®-740 W	1 × 0.10 kg/m ²
	Wearing layer	Sikagard®-340 WCT First layer diluted 5 % with water	2 × 0.20 kg/m ² per layer
	OS 4 (OS-C)		
	Layer	Product	Consumption
	Levelling filler (pore closure and levelling)	Sika MonoTop®-723 N	1 × 4.10 kg/m ²
	Wearing layer	Sikagard®-340 WCT First layer diluted 5 % with water	2 × 0.20 kg/m ² per layer

Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Product Temperature	Maximum	+30 °C
	Minimum	+10 °C

Ambient Air Temperature	Maximum	+30 °C
	Minimum	+10 °C

Relative Air Humidity	Maximum	75 %
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Dew Point Beware of condensation. The substrate and uncured applied product must be at least +3 °C above dew point to reduce the risk of condensation on the surface of the applied product.

Substrate Temperature	Maximum	+30 °C
	Minimum	+10 °C

Substrate Moisture Content	Substrate	Test method	Moisture content
	Cementitious substrates	Calcium carbide method (CM-method)	≤ 6 %

No rising moisture (ASTM D4263, polyethylene sheet)

Waiting Time / Overcoating

Before applying Sikagard®-340 WCT on Sikagard®-340 WCT, allow:

Temperature	Minimum	Maximum
+10 °C	180 minutes	7 days
+20 °C	180 minutes	7 days
+30 °C	150 minutes	7 days

Before applying Sikagard®-340 WCT on Sika MonoTop®-723 N, allow:

Temperature	Minimum	Maximum
+10 °C	24 hours	3 days
+20 °C	24 hours	3 days
+30 °C	24 hours	3 days

Before applying Sikagard®-340 WCT on Sikagard®-740 W, allow:

Temperature	Minimum	Maximum
+10 °C	8 hours	7 days
+20 °C	5 hours	7 days
+30 °C	4 hours	7 days

Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

Drying time

Temperature	Tack free	Lightly serviceable	Full cure
+10 °C	24 hours	5 days	10 days
+20 °C	6 hours	3 days	7 days
+30 °C	3 hours	2 days	5 days

Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

Damage due to mechanical wear before full cure

Note: Cleaning the Product mechanically before it has fully cured may cause damage to the coating surface.

1. Allow the Product to fully cure before using a mechanical method of cleaning.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

SUBSTRATE CONDITION

Cementitious substrates must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².

Substrates must be clean, dry and free of contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

MIXING

MIXING PROCEDURE

1. Mix Part A (resin) for ~30 seconds.
2. Add Part B (hardener) to Part A.
3. **IMPORTANT** Do not mix excessively. Mix Part A + B continuously for ~3 minutes until a uniform mix is achieved.
4. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
5. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

APPLICATION

IMPORTANT

Protect from moisture

After application, protect the Product from damp, condensation and direct water contact for at least 24 hours.

IMPORTANT

Ventilation in confined spaces

Always ensure good ventilation when applying the Product in a confined space.

IMPORTANT

UV exposure

The Product is not resistant for permanent direct exposure to UV light.

1. Where exposed cover the Product with a suitable coating to resist UV.

APPLICATION PROCEDURE

1. Apply the Product evenly over the surface with a brush or fleece roller
2. Alternatively, apply the Product using airless spray equipment.
3. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats.

CLEAN UP

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 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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Product Data Sheet

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