BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-65 WN

Water-dispersed epoxy coating for curing and protection of concrete

DESCRIPTION

Sikagard®-65 WN is a 2-part, epoxy resin, water based, grey coating for the efficient curing of precast concrete elements and as a concrete protective coating . It is designed and formulated to meet high durability demands in aggressive environments.

USES

Sikagard®-65 WN may only be used by experienced professionals.

Sikagard®-65 WN is used to cure and protect precast concrete segments, as an efficient alternative to conventional curing and protection procedures. Segments can be produced without any micro-cracks and due to the penetration of the epoxy resin into the concrete surface, a barrier against the ingress of aggressive ions can be obtained.

CHARACTERISTICS / ADVANTAGES

- Good adhesion to damp and green concrete
- Good resistance to chemical attack and aggressive water
- Application immediately after de-moulding
- Good pore sealing properties (cosmetic finish)
- Good opacity
- Easy application by roller
- Fast curing at elevated temperature
- Solvent free (odourless)
- Acts double functions as a curing & protective coating to fresh new concrete segments

APPROVALS / CERTIFICATES

- Water permeability DIN 1048, SikaGard®-65 WN, Admaterials Technologies, Report No. ADM/15/4183
- Water test SikaGard®-65 WN, Admaterials Technologies, Report No. ADM/14/6443, No. ADM/14/4901

PRODUCT INFORMATION

Composition	Water based epoxy resin	
Packaging	Part A	15 kg
	Part B	5 kg
Appearance and colour	Part A	Grey,
	Part B	Amber, transparent
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. Always refer to packaging.	
Density	Part A	~1,6 kg/l
	Part B	~1,1 kg/l
	Mixed resin	~1,4 kg/l
Solid content by mass	~70 %	
Solid content by volume	~56 %	

TECHNICAL INFORMATION

Tensile adhesion strength	~ 3,6 N/mm²		(EN 1542:1999)
	~ 4.8 N/mm2		(BS 1881:Part 207:1992)
Permeability to water vapour	Water vapour transmission	~8,96 mg/h	(EN ISO 7783:2012)
	Water vapour transmission rate	~27,39 g/m² × day	
	Water vapour permeation coefficient	~4,5E-6 g/m² × day × Pa	
	Diffusion equivalent air layer thickness Sd	0,77 m	
	Permeability to Water	0 mm per 24 hours with a pressure of 5 kg/cm2	(DIN 1048)
Permeability to carbon dioxide	Carbon dioxide permeability	~2,6 g/m²×d	(EN 1062-6:2003)
	Diffusion equivalent air layer thickness Sd	~98 m	
	Diffusion resistance number	~476685 µ	
	Permeability to Chlorides	450 coulombs – classified as Very Low	(ASSHTO 1227-93)

APPLICATION INFORMATION

Mixing ratio	Part A : B = 3 : 1 parts by weight	
Consumption	**~ 300 - 400 g/m²**	
	Single coat application on segments : 1 x Sikagard®-65 WN	300 – 450 g/m2
	Double coat application on segments : 1 x Sikagard®-65 WN	150 - 250 g/m2
	1 x Sikagard®-65 WN	100 - 200 g/m2
	These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.	
Layer thickness	~120 - 160 µm	

Ambient air temperature	+10 °C min. / +40 °C max.
Relative air humidity	85 % maximum
Substrate moisture content	Can be applied on green or damp concrete ensuring no standing water is present

Pot Life

Material temperature	Time
+10 °C	~40 minutes
+20 °C	~20 minutes
+30 °C	~10 minutes

Curing time

Rate of Cure (at 85% r.h.)

Temperature	+20°C	+30°C
Minimum curing time before transportation of segments	12 hours	4 hours
Fully cured	10 days	7 days

Waiting time to overcoating	If a second coat is required, it must be applied when the first coat is tack free

BASIS OF PRODUCT DATA

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

FURTHER INFORMATION

- **Fire Test, Smoke and Toxic Gas :** Special measures are not needed, since Sikagard®-65 WN achieves the requirements (BS 476)

IMPORTANT CONSIDERATIONS

- Never add solvent to Sikagard®-65 WN .
- Maximum concrete substrate temperature for proper application of Sikagard®-65 WN is +70°C.
- When applying in 2 coats, the second coat may only be applied after the first coat is tack-free .
- Waiting time between coats must not be more than 3 days .
- The end of pot life cannot be visually or physically detected. Therefore, the specified pot life must be timed and observed strictly .
- Protect freshly applied product from rain/ water for a minimum of 6 hours .
- Ensure good ventilation when Sikagard®-65 WN is applied in confined spaces.

ECOLOGY, HEALTH AND SAFETY

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrate must be clean, dry or slightly damp and free of all contaminants such as dirt, oil, grease, surface treatments and loose friable material.
Maximum concrete substrate temperature for proper application of Sikagard®-65 WN is +70°C.

SUBSTRATE PREPARATION

Slightly grinding using electrical grinder will be sufficient , then we can treat the surface holes with epoxy putty .

MIXING

Stir Part (A) with an electric mixer at low speed (300 - 400 rpm) , Then add Part (B) and continue mixing until a homogeneous mix with homogeneous color is achieved (approx. 2 – 3 minutes).

APPLICATION

.Apply Sikagard®-65 WN onto the prepared substrate evenly using a roller, brush or trowel at the required consumption rate. When applied by trowel, while coating is wet, use a roller to achieve an even coating thickness.
Sikagard®-65 WN is designed to be applied using roller or brush , For spray application that needs additional process during the manufacturing where extra filterization should be accomplished and this is upon client`s request .

CLEANING OF EQUIPMENT

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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