

PRODUCT DATA SHEET

Sikagard®-405 W

SINGLE COMPONENT, WATERBORNE, MODIFIED ACRYLIC COATING

DESCRIPTION

Sikagard®-405 W is a single component white, water-borne acrylic resin based coating containing an organic in-fim-preservative with a mid-sheen finish

USES

Sikagard®-405 W may only be used by experienced professionals.

- Top coat or stand alone coating for internal walls and ceilings
- For concrete, bricks, cement based and gypsum substrates, metallic surfaces, timber, tiles and plastic
- Suitable for pharmaceutical, medical engineering, food & Beverage industry, hospitals, healthcare facilities, prisons and leisure facilities

CHARACTERISTICS / ADVANTAGES

- Good resistance to repeated cleaning and disinfection regimes, using mild detergents and cleaning solutions
- Tough and highly durable
- Good covering and hiding power (opacity)
- Permeable to water vapour
- Ultra low emission
- Odourless
- Seamless, easy to clean finish
- Easy to apply
- Mid-sheen finish

SUSTAINABILITY

Sikagard®-405 W conforms to the requirements of LEED EQ Credit 4.2: Low emitting Materials: Paints & Coatings, SCAQMD Method 304-9; VOC Content <100g/L

APPROVALS / CERTIFICATES

- Eurofins, test report No. 392-2016-00071401_E_EN, VOC emission acc. French Regulations Decret DEVL 11019093D and Decret DEVL 11034675A, October 20th 2015
- Exova Warringtonfire, test report No. 363979, behaviour to fire acc. BS 476, April 27th 2016
- Eurofins, test report No. 392-2015-00386901, determination of VOC and SVOC content acc. ISO 11890-2, CEPE/EC/2015-04-13 and the Commission Decision 2014/312/EU, December 10th 2015
- PRA, test report No. 77584-049, gloss, fineness, grind wet scrub resistance and contrast ratio acc. EN 13300, January 29th 2016
- IMSL, test report No. 2015/02/004.1A, determination of antibacterial activity acc. ISO 22196, May 12th 2015
- Campden BRI Group, test report No. S/REP/138532/1, Sensory Evaluation of the Taint Potential, Triangle Test Method TES-S-002, Odour Transfer Method, March 2nd 2016
- 4wardtesting, test report No. C2905, water vapour transmission rate and water vapour permeability acc. ISO 7783-1:2000, January 5th 2016

PRODUCT INFORMATION

Composition	Waterborne, acrylic copolymer dispersion	
Packaging	5.0 L = 6.60 kg drums 15.0 L = 19.80 kg drums	
Appearance / Colour	White	
Shelf life	12 month from date of production	
Storage conditions	The packaging must be stored properly in closed, sealed and undamaged packaging, in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost	
Density	~1.31 kg/L	(EN ISO 2811-1)
Solid content by weight	~42 %	
Solid content by volume	~55 %	

TECHNICAL INFORMATION

Tensile Strength	~10 N/mm ²	(EN ISO 527-3)																				
Elongation at Break	~70 %	(EN ISO 527-3)																				
Tensile Adhesion Strength	≥ 1.5 N/mm ² to concrete with Sika Bonding Primer	(ISO 4624)																				
Chemical Resistance	Good short term resistance to mild acids, alkalis, cleaning agents and disinfectants. Please contact local Sika Technical service for specific information. Disinfection with Hydrogen Peroxide Vapor: <ul style="list-style-type: none">▪ Resistant when using STERIS VHP technology▪ Resistant to PEA vaporisation technology according Test report PEA▪ Resistant when using Oxypharm vaporiser NOCOSPRAY with the following set-up: <table><thead><tr><th>Disinfectant</th><th>Concentration</th><th>Setting at vaporiser</th><th>Contact time</th></tr></thead><tbody><tr><td>NOCOLYSE Mint (6 %)</td><td>1 mL/m³</td><td>20 m³ (1.5 min vaporisation)</td><td>30 min</td></tr><tr><td>NOCOLYSE ONE S hot (12 %)</td><td>3 mL/m³ (2cycles)</td><td>45 m³ (5 min vaporisation)</td><td>30 min</td></tr><tr><td>NOCOLYSE Food (7.9 %)</td><td>1 mL/m³</td><td>20 m³ (1.5 min vaporisation)</td><td>30 min</td></tr><tr><td>NOCOLYSE Food (7.9 %)</td><td>5 mL/m³</td><td>75 m³ (5 min vaporisation)</td><td>60 min</td></tr></tbody></table>		Disinfectant	Concentration	Setting at vaporiser	Contact time	NOCOLYSE Mint (6 %)	1 mL/m ³	20 m ³ (1.5 min vaporisation)	30 min	NOCOLYSE ONE S hot (12 %)	3 mL/m ³ (2cycles)	45 m ³ (5 min vaporisation)	30 min	NOCOLYSE Food (7.9 %)	1 mL/m ³	20 m ³ (1.5 min vaporisation)	30 min	NOCOLYSE Food (7.9 %)	5 mL/m ³	75 m ³ (5 min vaporisation)	60 min
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Permeability to Water Vapour	~51.5 g/m ² in 24 h	(EN ISO 7783-1:2011)																				

APPLICATION INFORMATION

Consumption	~0.20 kg/m ² per layer ~0.15 L/m ² per layer
Layer Thickness	~120 µm
Ambient Air Temperature	+8 °C - +35 °C
Relative Air Humidity	80 % max.
Dew Point	3 °C above dew point Beware of condensation
Substrate Temperature	+8 °C - +35 °C

Curing Time

Before applying Sikagard®-405 W to Sikagard®-405 W allow:

Substrate Temperature	Minimum	Maximum
+10 °C	4 h	7 d
+20 °C	2 h	7 d
+30 °C	1 h	7 d

Before applying Sikagard®-405 W to Sikagard®-403 W allow:

Substrate Temperature	Minimum	Maximum
+10 °C	4 h	7 d
+20 °C	1 h	7 d
+30 °C	1 h	7 d

Applied Product Ready for Use

Temperature	Tack free	Full cure
+10 °C	8 h	7 d
+20 °C	4 h	7 d
+30 °C	3 h	7 d

APPLICATION INSTRUCTIONS

APPLICATION

Stir product mechanically until a uniform liquid has been achieved. Use low speed electrical stirrer (300-400rpm) to avoid air entrapment.

For roller application use short piled roller. For airless application use tip size 0.38 to 0.53mm/ Angle 40° to 60°.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened and/ or cured material can only be removed mechanically or with proprietary paint stripper.

IMPORTANT CONSIDERATIONS

- Each method of application will leave a different surface finish. If it is important do not mix methods within single areas.
- Each type of roller will give a slightly different surface finish - always use same roller type in same areas
- Ensure entire surface is fully dried before proceeding. Cracking may occur when over coating undried surfaces or when applying excessively thick material.
- Do not apply over silicone sealants
- The gloss of applied material is influenced by humidity, temperature and absorbency of the substrate
- Always ensure good ventilation when application takes place in a confined space, to ensure drying and full curing
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For spray application the use of personal health and safety equipment is mandatory
- If heating is required do not use gas oil, paraffin or other fossil fuel heaters, these produce CO₂ and water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems
- New concrete should be allowed to cure/ hydrate for a minimum of 10 days and preferably 28 days

- Do not apply near food stuff in unventilated conditions, always ensure adequate ventilation
- Do not thin or brush out like conventional paints
- Acoustic boards may lose some acoustic absorption after coating

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.

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.

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.

DIRECTIVE 2004/42/CE LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / i type wb) is 140 g/L (Limits 2010) for the ready to use product.

The maximum content of Sikagard®-405 W is ≤ 140 g/L VOC for the ready to use product.

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.

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Product Data Sheet
Sikagard®-405 W
December 2017, Version 02.01
020813020020000023

Sikagard-405W-en-ID-(12-2017)-2-1.pdf

