

PRODUCT DATA SHEET

Sikagard[®]-678 WMY

Acrylate based water dispersed protective coating for concrete

DESCRIPTION

Sikagard[®]-678 WMY is a single component, low VOC elastomeric, water dispersed protective coating system based on the latest technology in acrylate dispersion. When fully cured, Sikagard[®]-678 WMY forms a flexible finishing film which is slightly breathable but is impermeable to water and atmospheric gases.

USES

For protection and embellishment of facades and fair-face concrete without obscuring the characteristic surface texture of the concrete:

- Concrete protection system against aggressive pollutants
- Surface protection for exterior areas (No traffic)
- Architectural colour design on fair-face concrete structures
- Suitable for use in areas sprayed with de-icing salts

CHARACTERISTICS / ADVANTAGES

- Good water vapour permeability
- Acrylate based – Alkaline resistant
- High diffusion-resistance to CO₂, good carbonation barrier
- Excellent resistance to weathering, UV and dirt resistant
- Resistance to temperature changes and de-icing salts
- Excellent resistance against chalking
- Open to vapour diffusion
- Greatly reduced water absorption
- Easy to apply by roller or spraying
- Ecologically and environmentally harmless
- Crack-bridging protection

PRODUCT INFORMATION

Composition	Acrylate Based water dispersed
Packaging	20 kg pail
Appearance / Colour	Standard colours include: Pebble Grey (~RAL 7032), Light Grey (~RAL 7035), Silver Grey (~RAL 7001) and White (~RAL 9010) Non-standard colours are also available upon request.
Shelf Life	12 months from the date of production
Storage Conditions	Store in original unopened packaging in a cool, dry place at temperatures between +5 °C to +35 °C. Protect from direct sunlight.

TECHNICAL INFORMATION

Tensile Adhesion Strength	~4.0 N/mm ²	(EN 1542:1999)
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Crack Bridging Ability	Static	Class A4 width of bridged crack > 1.25 mm	(BS EN 1602-7-2004, Annex C1)
	Dynamic	Class A4 width of bridged crack > 1.25 mm	(BS EN 1602-7-2004, Annex C3)
Thermal Compatibility	Thunder Shower Cycling / Thermal Shock		
	After thermal cycling:		(BS EN 13687-2 :2002 & BS EN 1542:1999)
	▪ No bubbles, cracks and delamination		
	▪ Adhesion strength > 1.5 MPa		
Reaction to Fire	Class A1	(BS EN ISO 1182: 2020 & BS EN13501-1:2018)	
Behaviour after Artificial Weathering	After 2 000 h of artificial weathering		
	Elevated Temperature	No defect (satisfactory)	(EN 1062-11:2000)
	UV radiation and humidity	No defect (satisfactory)	
Permeability to Water Vapour	μ: ~7 000 Sd: ~1.33 m Class 1 (Sd < 5 m)	(EN ISO 7783:2011)	
Capillary Absorption	w: ~0.04 kg/(m ² h ^½)	(EN 1062-3:2008)	
Permeability to Carbon Dioxide	μ: ~15 500 Sd: ~265 m	(EN 1062-6:2002)	

APPLICATION INFORMATION

Consumption	Standard system based on requirement for a minimum total DFT of 150 μm as follows:		
	Primer coat	1x Sikagard®-678 WMY Primer at 0.10–0.15 kg/m ² /coat	
	Top coat	2x Sikagard®-678 WMY at 0.20–0.30 kg/m ² /coat	
	Note: Depending on substrate porosity.		
Ambient Air Temperature	+8 °C min. / +35 °C max.		
Relative Air Humidity	80 % max.		
Dew Point	Observe dew point		
Substrate Temperature	+8 °C min. / +35 °C max. At rising temperatures, do not apply to concrete substrates without pore sealer.		
Waiting Time / Overcoating	4–6 hours at 30 °C, 80 % r.h.		
Drying Time	Touch dry	~2.5 h at 30 °C. 80 % r.h.	

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.

IMPORTANT CONSIDERATIONS

- Freshly applied layers must be protected from dew, fog, rain and frost
- Application must not proceed during rain or high air humidity
- Do not use Sikagard®-678 WMY on pedestrian area
- Do not use Sikagard®-678 WMY on wet surface

- Do not use Sikagard®-678 WMY when rain is imminent
- Do not dilute Sikagard®-678 WMY with solvents
- Do not use Sikagard®-678 WMY for pool or tank waterproofing
- Do not use Sikagard®-678 WMY when relative humidity is more than 80 % or when rain is imminent
- Do not use Sikagard®-678 WMY on concrete that is less than 28 days

ECOLOGY, HEALTH AND 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 / PRE-TREATMENT

The substrate must be free of loose and friable particles, dust and dirt. Remnants of release agents, particularly oil and wax based, must be removed. SikaTop® or Sika MonoTop® mortars can be over-coated after 7 days.

APPLICATION

Sikagard®-678 WMY is supplied ready to use. However, before applying, the material must be thoroughly stirred with a mechanical stirrer. Sikagard®-678 WMY can be applied by roller (preferably with a short piled lamb skin roller) or airless spray equipment with a pressure of 180 bar, nozzle with opening diameter of 0.38–0.66 mm and a spraying angle of 50–60°. Use as it is and do not dilute with more than 5 % of water, by volume. Application must not proceed during rain or high air humidity. Freshly applied layers must be protected from dew, fog, rain and frost. For cracks larger than 0.2 mm, other special repair material is required prior to application of Sikagard®-678 WMY. Please contact our Technical Service Department for more information.

CLEANING OF TOOLS

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

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.

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Product Data Sheet

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