

## PRODUCT DATA SHEET

# Sikagard<sup>®</sup>-1812

(formerly MProtect 1812)

AMINE-CURED, PITCH FREE EPOXY

## DESCRIPTION

Sikagard<sup>®</sup>-1812 is a two component, solvent free, highly chemical resistant, pitch free epoxy coating. Suitable for use in hot and tropical climatic conditions.

## USES

Sikagard<sup>®</sup>-1812 is used to provide a heavy duty protective, waterresistant and flexible coating. Widely used in the sewerage and waste water industry as well as other aggressive immersion conditions on cementitious and metal substrates. Uses include the lining of tanks, pipes and ducting, coating of concrete, asbestos cement, pipes and nonferrous metals.

Sikagard<sup>®</sup>-1812 is particularly suitable for use in sewerage work applications and in offshore or marine environments.

Sikagard<sup>®</sup>-1812 may only be used by experienced professionals.

## FEATURES

- Excellent overall chemical resistance
- Excellent abrasion resistance and flexibility
- VOC compliant to EN norms
- High build coating
- Easy application: brush, roller, spray
- Economical
- Seamless finish
- Eco-friendly coating
- Excellent corrosion protection
- Available in two colours to differentiate system build-up
- Smooth and glossy finish

## PRODUCT INFORMATION

<b>Packaging</b>	Supplied in 27 kg (18 L) units
<b>Colour</b>	Black, and Light Grey
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	Store in a dry area in original sealed packaging at temperatures between +5°C and +30°C. Protect from direct sunlight, heat and moisture.
<b>Density</b>	~1.5 kg/l (mixed, at 23°C) (ASTM D1475)
<b>Volatile organic compound (VOC) content</b>	~20 g/l

Solid content by volume	~100 %
Appearance	Thixotropic resin

## TECHNICAL INFORMATION

Abrasion resistance	< 50 mg (CS17 wheel / 1000g / 1000 cycle) (7d)	(ASTM D4060)
Tensile strength	~23 N/mm <sup>2</sup> (7d)	(ASTM D638)
Tensile adhesion strength	~2 N/mm <sup>2</sup> (concrete failure) (7d)	(ASTM D4541)
	Dry Heat Aging Test: ~1.5 N/mm <sup>2</sup> (at 160°C continuous for 30 days, ~300 µm DFT)	
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Department for further information.	
Temperature resistance	<b>Exposure <sup>1</sup></b>	<b>Maximum Temperature</b>
	Dry heat	+160°C <sup>2</sup>
	Water Immersion	+60°C
	<sup>1</sup> No simultaneous chemical and mechanical exposure <sup>2</sup> A loss of gloss and discolouration may be observed above +90°C.	
Water penetration under pressure	Nil	(BS EN 12390, Part 8: 2000)

## APPLICATION INFORMATION

Consumption	<b>Exposure Conditions:</b>		
	<b>Moderate</b>	<b>Total DFT</b>	<b>200-300 µm</b>
	Primer	Sikagard® P 659 or Sikafloor®-374 CP SL	150-300 g/m <sup>2</sup> 150-300 g/m <sup>2</sup>
	Skim Coat	Sikadur®-31 CF	As required
	Top Coat	Sikagard®-1812	180-255 g/m <sup>2</sup>
	<b>Severe</b>	<b>Total DFT</b>	<b>325-500 µm</b>
	Primer	Sikagard® P 659 or Sikafloor®-374 CP SL	150-300 g/m <sup>2</sup> 150-300 g/m <sup>2</sup>
	Skim Coat	Sikadur®-31 CF	As required
	Body Coat	Sikagard®-1812	180-255 g/m <sup>2</sup>
	Top Coat	Sikagard®-1812	180-255 g/m <sup>2</sup>
	<b>Immersion</b>	<b>Total DFT</b>	<b>450-650 µm</b>
	Primer	Sikagard® P 659 or Sikafloor®-374 CP SL	150-300 g/m <sup>2</sup> 150-300 g/m <sup>2</sup>
	Skim Coat	Sikadur®-31 CF	As required
	Body Coat 1	Sikagard®-1812	180-240 g/m <sup>2</sup>
	Body Coat 2	Sikagard®-1812	180-240 g/m <sup>2</sup>
	Top Coat	Sikagard®-1812	180-255 g/m <sup>2</sup>
	<b>Abrasive</b>	<b>Total DFT</b>	<b>900-1200 µm</b>
	Primer	Sikagard® P 659 or Sikafloor®-374 CP SL	150-300 g/m <sup>2</sup> 150-300 g/m <sup>2</sup>
	Skim Coat	Sikadur®-31 CF	As required
	Body Coat 1	Sikagard®-1812	250-312 g/m <sup>2</sup>
	Body Coat 2	Sikagard®-1812	250-312 g/m <sup>2</sup>
	Body Coat 3	Sikagard®-1812	250-312 g/m <sup>2</sup>
	Body Coat 4	Sikagard®-1812	250-312 g/m <sup>2</sup>
	Top Coat	Sikagard®-1812	180-250 g/m <sup>2</sup>
	Note: These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.		
Pot Life	25°C	40°C	(ASTM D2471)
	~70 min	~45 min	

<b>Tack free time</b>	25°C	40°C	(ASTM C679)
	~4 h	~1 h and 40 min	
<b>Drying time</b>	25°C	40°C	
	~8 h	~4 h	

## 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.
- Internal Reference - Version: MBS\_CC-UAE/Pr\_1812\_11\_09/v6/02\_21

## IMPORTANT CONSIDERATIONS

- Immersion temperature resistance is dependant upon exposure. Please consult Sika Technical Service for specific information.
- Do not use in immersed areas where water temperature is over +60°C.
- Epoxies lose gloss, discolour and will chalk in direct sunlight exposure.
- No additions or omissions are required and on no account should attempts be made to split packs.
- Unsuitable in situations where foodstuff or potable water will be in contact with the coating.
- Ventilation: When used as a tank lining or in enclosed areas, air circulation must be used during and after application, until the applied product is fully cured. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

## 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 PREPARATION

Surfaces must be clean and dry. Use suitable methods to remove dirt, dust, oil and all other forms of contamination that could interfere with the adhesion of the coating.

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#### Product Data Sheet

Sikagard®-1812  
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### Concrete

Concrete should be sound and sufficiently dry to accept Sikagard®-1812. Mechanically surface profiling is the method of surface preparation. Mechanically profile the surface to CSP3 as described by the International Concrete Repair Institute. Voids and pinholes must be repaired.

### APPLICATION

Sikagard®-1812 may be applied by airless spray, brush or roller. Please refer to our latest Method Statement for detailed application instructions.

### CLEANING OF EQUIPMENT

Use a suitable thinner (Xylene / MEK / Acetone) in case of spillage, absorb and dispose of in accordance with local applicable regulations.

## 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 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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