



## Sikagard<sup>®</sup>-218 W

Single component, waterborne modified acrylic resin intermediate and embedment coating

Construction

<b>Product Description</b>	Sikagard <sup>®</sup> -218 W is a single component, coloured, waterborne modified acrylic resin based intermediate and embedment coating, containing a silver ion based in-film preservative.	
<b>Uses</b>	<ul style="list-style-type: none"><li>■ Embedment, intermediate for internal walls and ceilings</li><li>■ For concrete, bricks, cement based and gypsum substrates, metallic surfaces, timber, tiles and plastic</li><li>■ Suitable for pharmaceutical, medical engineering, food and beverage industry, hospitals, healthcare facilities, kitchens and prisons</li></ul>	
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"><li>■ Easy application</li><li>■ Good resistance to repeated cleaning regimes using mild detergents and cleaning solutions</li><li>■ Tough and highly durable</li><li>■ Good covering and hiding power (opacity)</li><li>■ Good water vapour permeability</li><li>■ Highly elastomeric, resists cracking and flaking</li><li>■ Matt finish</li><li>■ Low odour</li></ul>	
<b>Tests</b>		
<b>Product Data</b>		
<b>Form</b>		
<b>Appearance / Colour</b>	Resin:	Liquid, coloured, matt
	Standard colour shade:	papyrus white (approx. RAL 9018)
<b>Packaging</b>	Sikagard <sup>®</sup> -218 W :	5 litres (= 6.40kg containers) 15.0 litres (= 19.20kg) containers



## Storage

<b>Storage Conditions/ Shelf-Life</b>	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +25 °C. Avoid exposure to frost and heat sources.
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## Technical Data

<b>Chemical Base</b>	Waterborne modified acrylic resin		
<b>Density</b>	Sikagard®-218 W (Steribase SI):	~ 1.28 kg/l	(DIN EN ISO 2811-1)
<b>Solid Content</b>	~ 46.7 % (by volume) / ~ 61.4% (by weight)		
<b>Adhesion</b>	<i>To concrete:</i> > 1.5 N/mm <sup>2</sup> (failure in concrete)		

## Mechanical / Physical Properties

### Resistance

<b>Chemical resistance</b>	10% solutions of acids and alkalis including nitric acid and caustic soda failed to cause breakdown of the membrane.
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## System Information

### System Structures

#### System 1:

Maintenance of good surfaces of block work, brick, stone, calcium silicate board, concrete, high pressure laminate, insulation materials, mastic, moisture resistant plasterboard, plasterboard, sand & cement render, tiles and timber (please refer to Technical Customer Services for further information):

Primer:	1 x Sika® Bonding Primer
Intermediate coat:	1 x Sikagard®-218 W
Top coat:	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W

#### System 2:

Poor surface of blockwork, brick, stone, calcium silicate board, concrete, high pressure laminate, insulation materials, mastic, moisture resistant plasterboard, plasterboard, sand & cement render, tiles and timber on areas where medium or heavy mechanical stress is expected (please refer to Technical Customer Services for further information):

Primer:	1 x Sika® Bonding Primer
Intermediate coat:	1 x Sikagard®-218 W embedment coat with either Sika® Reemat Lite or Premium (depending upon specification) 1 x Sikagard®-218 W
Top coat:	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W

#### System 3:

Poor surface of blockwork, brick, stone, calcium silicate board, concrete, high pressure laminate, insulation materials, mastic, moisture resistant plasterboard, plasterboard, sand & cement render, tiles and timber on areas where high mechanical stress or strong impact stress is expected (please refer to Technical Customer Services for further information):

Primer:	1 x Sika® Bonding Primer
Intermediate coat:	1 x Sikagard®-218 W embedment coat, with Sika® Reemat Premium followed wet in wet by Sika® Reemat Lite 1 x Sikagard®-218 W
Top coat:	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W

#### Note:

- For metal substrates apply 1 x Sikalastic® Metal Primer instead of Sika® Bonding Primer (please refer to Sikalastic® Metal Primer product datasheet for further information).
- Timber must be knot stopped, stable, free from shakes and non-checking. Sand if necessary and apply Bonding Primer.

## Application Details

### Consumption / Dosage

Coating System	Product	Consumption
<b>System 1</b>		
Primer	1 x Sika® Bonding Primer	Approx. 0.10 kg/m <sup>2</sup>
Intermediate coat	1 x Sikagard®-218 W	Approx. 0.35 kg/m <sup>2</sup>
Top coat	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W	Depending on the product used see individual product datasheets
<b>System 2</b>		
Primer	1 x Sika® Bonding Primer	Approx. 0.10 kg/m <sup>2</sup>
<b>System 2.1</b>		
Intermediate coat with Sika® Reemat Llite	1 x Sikagard®-218 W 1 x Sika® Reemat Lite 1 x Sikagard®-218 W	Approx. 0.35 kg/m <sup>2</sup> Approx. 0.03 kg/m <sup>2</sup> Approx. 0.35 kg/m <sup>2</sup>
<b>System 2.2</b>		
Intermediate coat with Sika® Reemat Premium	1 x Sikagard®-218 W 1 x Sika® Reemat Premium 1 x Sikagard®-218 W	Approx. 1.40 kg/m <sup>2</sup> Approx. 0.225 kg/m <sup>2</sup> Approx. 0.70 kg/m <sup>2</sup>
Top coat	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W	Depending on the product used; see individual product datasheets
<b>System 3:</b>		
Primer	1 x Sika® Bonding Primer	Approx. 0.10 kg/m <sup>2</sup>
Intermediate coat with Sika® Reemat Premium followed wet in wet by Sika® Reemat Lite	1 x Sikagard®-218 W 1 x Sika® Reemat Premium 1 x Sika® Reemat Lite 1 x Sikagard®-218 W	Approx. 1.40 kg/m <sup>2</sup> Approx. 0.225 kg/m <sup>2</sup> Approx. 0.03 kg/m <sup>2</sup> Approx. 0.70 kg/m <sup>2</sup>
Top coat	2 x Sikagard®-215 W or 2 x Sikagard®-216 W or 2 x Sikagard®-317 W	Depending on the product used; see individual product datasheets

**Note:**

These figures are theoretical and do not allow for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.

### Substrate Quality

The substrate must be sound, clean, dry and free of all contaminants such as dirt, laitance, mould, oil, grease, coatings and surface treatments, etc.

Brickwork, blockwork, stonework:

Inspect the substrate. Spalling, flaking and damaged areas should be repaired using compatible materials to match surroundings or replace as necessary.

If in doubt apply a test area first.

### Substrate Preparation

All surfaces to be coated should be thoroughly cleaned by conventional means.

Exposed metal surfaces to be included in the coating schedule should be wire brushed or mechanically abraded to remove rust/ scale or oxidation. Return to a clean, bright metal wherever possible.

Ensure that surfaces are free from visible dampness and that all dust, loose and friable material is completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

### Application Conditions / Limitations

**Substrate Temperature** +8°C min. / +35°C max.

**Ambient Temperature** +8°C min. / +35°C max

<b>Substrate Moisture Content</b>	Visible damp free (maximum 18% wood moisture equivalent).  < 6% pbw moisture content Test method: Sika <sup>®</sup> -Tramex meter, < 4% CM - measurement or Oven-dry-method.  No rising moisture according to ASTM (Polyethylene sheet).		
<b>Relative Air Humidity</b>	80% max.		
<b>Dew Point</b>	Beware of condensation!  The substrate and uncured coating must be at least 3°C above dew point to reduce the risk of condensation or blooming on the wall finish.		
<b>Application Instructions</b>	Prior to application, confirm substrate moisture content, relative humidity and dew point.  <i>Primer:</i> Sika <sup>®</sup> Bonding Primer can be applied by short-piled roller, brush or airless spray. Sikalastic <sup>®</sup> Metal Primer can be applied by short-piled roller, brush or airless spray.  <i>Intermediate coat:</i> 1 x Sikagard <sup>®</sup> -218 W can be applied by short pile or sheepskin roller (for embedment coat only), brush or airless spray. Preferred application is by airless spray.		
<b>Application Method / Tools</b>	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).		
<b>Cleaning of Tools</b>	Before applying Sikagard <sup>®</sup> -218 W - on Sikagard <sup>®</sup> -218 W - allow:		
<b>Waiting Time / Over coating</b>	Substrate temperature	Minimum	Maximum
	+10 °C	~24 hours	7 days
	+20 °C	~4 hours	7 days
	+30 °C	~4 hours	7 days
	Before applying Sikagard <sup>®</sup> -top coats - on Sikagard <sup>®</sup> -218 W - allow:		
	Substrate temperature	Minimum	Maximum
	+10 °C	~4 hours	7 days
	+20 °C	~1 hours	7 days
	+30 °C	~1 hours	7 days
	Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.		
	<b>Notes on Application / Limitations</b>	<p>Minimum two coats, dependent on requirements.</p> <p>Ensure entire surface is fully dried before proceeding. Cracking may occur overcoating undried surfaces or when applying excessively thick material.</p> <p>Always ensure good ventilation when using Sikagard<sup>®</sup>-218 W in a confined space, to ensure drying and full curing.</p> <p>The gloss of the applied material is influenced by humidity, temperature and absorbency of the substrate.</p> <p>The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking (for further information please contact Technical Customer Services).</p> <p>For spray application the use of protective health &amp; safety equipment is mandatory!</p> <p>If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.</p> <p>New concrete should be allowed to cure/hydrate for a minimum of 10 days and preferably 28 days.</p>	

## Curing Details

Applied Product ready for use	Temperature	Tack free	Full cure
	+10°C	~ 8 hours	~ 7 days
	+20°C	~ 4 hours	~ 7 days
	+30°C	~ 2 hours	~ 7 days

Note: Times are approximate and will be affected by changing ambient conditions.

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.

## Value Base

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.

## Local Restrictions

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

## Health and Safety Information

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.

## EU Regulation 2004/42

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type **wb**) is 140 / 140 g/l (Limits 2007 / 2010) for the ready to use product.

## VOC - Decopaint Directive

The maximum content of **Sikagard®-218 W** is < 140 g/l VOC for the ready to use product.

## USGBC LEED rating

Sikagard®-218 W conforms to the requirements of LEED EQ Credit 4.2: Low -Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100g/l



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