

Product Data Sheet
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Sikagard®-Wallcoat N

Sikagard®-Wallcoat N

2-part water dispersed epoxy coating

Product Description

Sikagard®-Wallcoat N is a two part, coloured, water dispersed epoxy resin.

Uses

- Coloured coating for interior wall surfaces
- For concrete or cementitious substrates
- Suitable for production facilities, storage and logistic areas etc.

Characteristics / Advantages

- Good chemical and mechanical resistance
- Good bond on damp surfaces
- Good opacity
- Water vapour permeable
- Decontaminable
- High resistance to carbonation
- Water dilutable
- Easy application
- Spray application is possible
- Easy to clean
- Good sag resistance
- Odourless

Tests

Approval / Standards

Decontamination property: "Excellent" according to DIN 24415.
Fire behaviour according to DIN 4102, class B1.

Product Data

Form

Appearance / Colours

Resin - part A: coloured, liquid
Hardener - part B: transparent, liquid

Available colour shades: White

Other colour shades on request.

Under direct sun light there may be some discolouration and colour variation, this has no influence on the function and performance of the coating.

Construction



Packaging	Part A: 14.60 kg containers Part B: 5.40 kg containers Part A+B: 20 kg ready to mix units								
Storage									
Storage Conditions / Shelf-Life	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 +30°C. Protect from frost								
Technical Data									
Chemical Base	Epoxy, water dispersed								
Density	Part A: ~ 1.58 kg/l Part B: ~ 1.07 kg/l Mixed resin: ~ 1.39 kg/l (DIN EN ISO 2811-1) All Density values at +23°C								
Solid Content	~ 50% (by volume) / ~ 64% (by weight)								
Viscosity	1030 mPas at +23°C (part A+B)								
Mechanical / Physical Properties									
Abrasion Resistance	94 mg (CS 10/1000/1000) (14 days / +23°C) (DIN 53 109, Taber Abrader Test)								
Resistance									
Chemical Resistance	Resistant to many chemicals. Please ask for a detailed chemical resistance table.								
Thermal Resistance									
	<table border="1"> <thead> <tr> <th>Exposure*</th> <th>Dry heat</th> </tr> </thead> <tbody> <tr> <td>Permanent</td> <td>+50°C</td> </tr> <tr> <td>Short-term max. 7 d</td> <td>+80°C</td> </tr> <tr> <td>Short-term max. 12 h</td> <td>+100°C</td> </tr> </tbody> </table> <p>Short-term moist/wet heat* up to +80°C where exposure is only occasional (i.e. during steam cleaning etc.)</p> <p>*No simultaneous chemical and mechanical exposure.</p>	Exposure*	Dry heat	Permanent	+50°C	Short-term max. 7 d	+80°C	Short-term max. 12 h	+100°C
Exposure*	Dry heat								
Permanent	+50°C								
Short-term max. 7 d	+80°C								
Short-term max. 12 h	+100°C								
System Information									
System Structure	<p>Primer:</p> <p>On gypsum plaster boards*: 1 x Sikafloor®-156 + 20 wt.-% Thinner C</p> <p>On mortars/Renders: 1 x Sikafloor®-156 + 20 wt.-% Thinner C or 1 x Sikagard®-Wallcoat N + 5 wt.-% water</p> <p>On concrete: 1 x Sikafloor®-156 + 20 wt.-% Thinner C or 1 x Sikagard®-Wallcoat N + 5 wt.-% water</p> <p>Seal coat: 2 - 3 x Sikagard®-Wallcoat N (roller application) or 1 - 2 x Sikagard®-Wallcoat N (spray application)</p> <p>* For the application onto gypsum plaster boards, please refer to 'Notes on Application / Limitations'.</p>								

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	Sikafloor®-156+ 20 wt.-% Thinner C or	~ 0.08 kg/m ²
	Sikagard®-Wallcoat N + 5 wt.-% water	~ 0.15 – 0.20 kg/m ²
Seal coat	2 - 3 x Sikagard®-Wallcoat N (roller application)	0.15 - 0.25 kg/m ² per coat
	1 - 2 x Sikagard®-Wallcoat N (spray application)	0.15 - 0.28 kg/m ² per coat

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

Substrate Quality

CONCRETE/MORTARS/RENDERS

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

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

If in doubt apply a test area first.

Substrate Preparation

Concrete substrates must be prepared mechanically using grinding equipment, abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.

Repairs to the concrete/mortar/render substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, SikaDur® and Sikagard® range of materials.

The substrate has to be primed or levelled in order to achieve an even surface.

High spots must be removed by e.g. grinding.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Application Conditions / Limitations

Substrate Temperature +10 °C min. / +30 °C max.

Ambient Temperature +10 °C min. / +30 °C max.

Substrate Moisture Content ≤ 6% pbw moisture content.

Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method.

No rising moisture according to ASTM (Polyethylene-sheet).

Relative Air Humidity 75% r.h. max.

Dew Point Beware of condensation!

The substrate and uncured floor coating must be at least 3 °C above dew point to reduce the risk of condensation or blooming on the coating finish.

Application Instructions

Mixing	Part A : part B = 73 : 27 (by weight); 65 : 35 (by volume)
Mixing Time	<p>Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 2 minutes until a uniform mix has been achieved.</p> <p>To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix.</p> <p>Over mixing must be avoided to minimise air entrainment.</p>
Mixing Tools	Sikagard®-Wallcoat N must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
Application Method / Tools	<p>Prior to application, confirm substrate moisture content, relative humidity and dew point.</p> <p>If > 6% pbw moisture content, Sikagard®-720 EpoCem® may be applied as a T.M.B. (Temporary Moisture Barrier) system.</p> <p><i>Primer:</i> Make sure that a continuous, pore free coat covers the substrate. Apply the Sikafloor® primer by brush or roller.</p> <p><i>Wall coating:</i> Apply Sikagard®-Wallcoat N by roller.</p> <p>Sikagard®-Wallcoat N can also be applied by airless spray (spray pressure ~ 300 bar, nozzles with a diameter of 0.53 mm / 0.021 inch and a spray angle 60°).</p>
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened and/or cured material can only be removed mechanically.

Potlife

Temperatures	Time
+10 °C	~ 150 minutes
+20 °C	~ 90 minutes
+30 °C	~ 60 minutes

Waiting Time / Overcoating

Before applying Sikagard®-Wallcoat N on Sikafloor®-156 allow:

Substrate temperature	Minimum	Maximum
+10 °C	24 hours	4 days
+20 °C	12 hours	2 days
+30 °C	6 hours	1 day

Before applying Sikagard®-Wallcoat N on Sikagard®-Wallcoat N allow:

Substrate temperature	Minimum	Maximum
+10 °C	180 minutes	7 days
+20 °C	180 minutes	7 days
+30 °C	150 minutes	7 days

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Notes on Application / Limitations

Do not apply Sikagard®-Wallcoat N on substrates with rising moisture.

Do not apply Sikagard®-Wallcoat N on gypsum plaster boards, if in use for wet areas, such as shower rooms etc.

Freshly applied Sikagard®-Wallcoat N must be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on the surface with the primer.

Always ensure adequate fresh air ventilation when using Sikagard®-Wallcoat N in a confined space to avoid curing problems.

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

For exact colour matching, ensure the Sikagard®-Wallcoat N in each area is applied from the same control batch numbers.

For spray application the use of protective health & safety equipment is mandatory!

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

Curing Details

Applied Product ready for use

Temperature	Tack free time	Full cure
+10 °C	~ 20 hours	~ 10 days
+20 °C	~ 6 hours	~ 7 days
+30 °C	~ 3 hours	~ 5 days

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

Value Base

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.

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.

Health and Safety Information

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.

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.

EU Regulation 2004/42

VOC - Decopaint Directive

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.

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



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