

PRODUCT DATA SHEET

Sikafloor® SL HC

2 - Part Epoxy Self - Smoothing and Broadcast System

DESCRIPTION

Sikafloor® SL HC is a two part, economic, multi-purpose binder based on epoxy.

USES

Sikafloor® SL HC may only be used by experienced professionals.

- Self-smoothing and broadcast systems for concrete and cement screeds with normal up to medium wear e.g. storage and assembly halls, maintenance workshops, garages, etc.
- The broadcast system is recommended for wet process areas.

CHARACTERISTICS / ADVANTAGES

- Highly fillable
- Chemical and Mechanical resistance
- Easy application
- Economical
- Liquid proof
- Solvent-free
- Semi-Gloss finish
- Slip resistant surface possible

PRODUCT INFORMATION

Packaging	Part A: 280 kg / drums Part B: 200 kg / drums, 75 kg / drums A+B : 20 kg / sets												
Appearance / Colour	Resin - part A : coloured, liquid Hardener - part B : transparent, liquid Unpigmented shade and RAL color shade on requested Under direct sun light discoloration and colour variations is possible; this has no influence on the function and performance of the coating.												
Shelf life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging.												
Storage conditions	Store in dry conditions at temperatures between +18°C and +30°C.												
Density	<table border="1"> <tr> <td>Part A</td> <td>~ 1.50 kg/l</td> <td>(DIN EN ISO 2811-1)</td> </tr> <tr> <td>Part B</td> <td>~ 1.00 kg/l</td> <td></td> </tr> <tr> <td>Mixed Resin</td> <td>~ 1.43 kg/l</td> <td></td> </tr> <tr> <td>Filled resin 1 : 1</td> <td>~ 1.84 kg/l</td> <td></td> </tr> </table> <p>*All density values at +23°C</p>	Part A	~ 1.50 kg/l	(DIN EN ISO 2811-1)	Part B	~ 1.00 kg/l		Mixed Resin	~ 1.43 kg/l		Filled resin 1 : 1	~ 1.84 kg/l	
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Mixed Resin	~ 1.43 kg/l												
Filled resin 1 : 1	~ 1.84 kg/l												
Solid content	~ 100% (by volume) / ~ 100% (by weight)												

TECHNICAL INFORMATION

Compressive strength	Resin: ~ 60 N/mm ² (28 days / +23°C)	(EN 196-1)
Tensile adhesion strength	> 1.5 N/mm ² (failure in concrete)	(ISO 4624)
Chemical resistance	Resistant to many chemicals. Please contact our technical service department for specific project requirements.	
Temperature resistance	Exposure*	Dry heat
	Permanent	+50°C
	Short-term max. 7 d	+80°C
	Short-term max. 12h	+100°C
*No simultaneous chemical and mechanical exposure.		

SYSTEMS

Systems	<i>Eco Self-smoothing system 1.0 mm:</i>	
	Primer:	1 x Sikafloor® SL HC Unpigmented
	Wearing course:	Sikafloor® SL HC + Sikadur® 508
	<i>Standard Self-smoothing system 1.5 - 3.0 mm:</i>	
	Primer:	1 x Sikafloor® SL HC Unpigmented
	Wearing course:	Sikafloor® SL HC + Sikadur® 508
	<i>Broadcast system approx. 4.0 mm:</i>	
	Primer:	1 x Sikafloor® SL HC Unpigmented
	Base coat:	1 x Sikafloor® SL HC Unpigmented + Sikadur® 508
	Broadcasting:	Quartz sand (0.4 - 0.7 mm) broadcast to excess
	Seal coat:	1 x Sikafloor®-264 HC

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 79 : 21 (by weight)		
Consumption	Coating system	Product	Consumption
	Priming	Sikafloor® SL HC Unpigmented	0.30 - 0.50 kg/m ²
	Levelling (optional)	Sikafloor®-SL levelling mortar	Sikafloor® SL HC Unpigmented + Sikadur® 508 to suit consistency required
	Eco Self-smoothing wearing course (Film thickness ~ 1.0 mm)	1 pbw Sikafloor® SL HC 1 pbw quartz sand (0.1 - 0.3 mm)	1.6 kg/m ² mixture (1.20 kg/m ² binder + 0.50 kg/m ² Sikadur® 508)
	Standard Self-smoothing wearing course (Film thickness ~ 1.5 - 3.0 mm)	1 pbw Sikafloor® SL HC 1 pbw quartz sand (0.1 - 0.3 mm)	1.8 kg/m ² mixture (0.9 kg/m ² binder + 0.9 kg/m ² Sikadur® 508) per mm layer thickness
	Broadcast system (Film thickness ~ 4.0 mm)	1 pbw Sikafloor® SL HC/ 1 pbw Sikadur® 508+ broadcasting quartz sand 0.4 -0.7 mm Seal coat Sikafloor®-264 HC	1.80 kg/m ² 1.80 kg/m ² ~ 6.0 kg/m ² ~ 0.7 kg/m ²

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

Ambient air temperature	+10°C min. / +30°C max.
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Relative air humidity	80% r.h. max.			
Dew point	Beware of condensation! The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish.			
Substrate temperature	+10°C min. / +30°C max.			
Substrate moisture content	≤ 4% pbw moisture content. Test method: Sika-Tramex meter or CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).			
Pot Life	Temperature	Time		
	+ 10°C	~ 50 minutes		
	+ 20°C	~ 25 minutes		
	+ 30°C	~ 15 minutes		
Waiting time to overcoating	Before applying Sikafloor® SL HC on Sikafloor® SL HC Unpigmented allow:			
	Substrate temperature	Minimum	Maximum	
	+ 10°C	24 hours	3 days	
	+ 20°C	12 hours	2 days	
	+ 30°C	8 hours	1 day	
	Before applying Sikafloor® SL HC on Sikafloor® SL HC allow:			
	Substrate temperature	Minimum	Maximum	
	+ 10°C	30 hours	3 days	
	+ 20°C	24 hours	2 days	
	+ 30°C	16 hours	1 day	
* Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.				
Applied product ready for use	Temperature	Foot traffic	Light traffic	Full cure
	+10°C	~ 72 hours	~ 6 days	~ 10 days
	+20°C	~ 24 hours	~ 4 days	~ 7 days
	+30°C	~ 18 hours	~ 2 days	~ 5 days
	* Note: Times are approximate and will be affected by changing ambient conditions.			

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Substrate Quality

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 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 substrate, filling of blowholes/voids and surface levelling can be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.

The concrete or screed 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.

MIXING

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. When parts A and B have been mixed, add the quartz sand 0.08 - 0.25 mm and/or Sikafloor® Filler-1 and mix for a further 2 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimize air entrainment.

Sikafloor® SL HC must be thoroughly mixed using a low speed stirrer (300 – 400 rpm) or other suitable equipment.

APPLICATION

Prior to application, confirm substrate moisture content, r.h. and dew point. If > 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a temporary moisture barrier system.

Levelling:

Rough surfaces need to be levelled first. Therefore use e.g. Sikafloor® SL HC Unpigmented + Sikadur® 508 to suit consistency required for levelling mortar.

Wearing course smooth:

Sikafloor® SL HC is poured, spread evenly by means of a serrated trowel. After spreading the material evenly, turn the serrated trowel and smooth the surface in order to achieve an aesthetically higher grade of finish. Roll immediately in two directions with a spiked roller to ensure even thickness.

Broadcast system:

Sikafloor® SL HC is poured, spread evenly by means of a serrated trowel. Then, level and remove any entrapped air with a spiked roller and after about 15 minutes (at +20°C) but before 30 minutes (at+20°C), broadcast with quartz sand, at first lightly and then to excess.

CLEANING OF EQUIPMENT

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

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, Sikafloor® SL HC must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes.

IMPORTANT CONSIDERATIONS

- Do not apply Sikafloor® SL HC on substrates with rising moisture.
- Do not blind the primer.
- Freshly applied Sikafloor® SL HC must be protected from damp, condensation and water for at least 24 hours.
- Avoid puddles on the surface with the primer.
- For areas with limited exposure and normally absorbent concrete substrates priming with Sikafloor® SL HC Unpigmented is not necessary for broadcast systems.
- For roller / textured coatings: Uneven substrates as well as inclusions of dirt cannot and should not be covered by thin sealer coats. Therefore both substrate and adjacent areas must always be prepared and cleaned thoroughly prior to application.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure Sikafloor®-264 HC in each area is applied from the same control batch numbers.
- Under certain conditions, underfloor heating combined with high point loading, may lead to imprints in the resin.
- 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.

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.

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.

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 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.

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