

PRODUCT DATA SHEET

Sikafloor®-21 PurCem® SA

Self-smoothing high strength, chemical and thermal shock resistant polyurethane hybrid flooring screed with a slip resistant finish

DESCRIPTION

Sikafloor®-21 PurCem® SA is a self-smoothing multi-component, waterbased colored polyurethane hybrid flooring screed. It has flat, high abrasion, chemical, impact and slip-resistant finish. Suitable for use in hot and tropical climatic conditions.

USES

Sikafloor®-21 PurCem® SA may only be used by experienced professionals.

The Product is used as a scratch coat or wearing coat layer in Sikafloor® PurCem® flooring systems.

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Good resistance to specific chemicals
- High mechanical resistance
- Low VOC emissions
- Odourless
- Non-tainting
- Thermal expansion properties similar to concrete
- Tolerant to substrates with high moisture content

APPROVALS / CERTIFICATES

- Fire classification report according to EN 13501-1 from Exova Warrington Fire for Sikafloor®-21 PurCem® No.317047, dated 24th of March, 2012
- Certified as suitable for use in food and beverage facilities that operate in accordance with HACCP based Food and Safety Programme, I-PE-769-SA-RG-04.

PRODUCT INFORMATION

Composition	Water-based polyurethane cement hybrid		
Packaging	Part A (pre-tinted)	3.00 kg plastic jerrycan	
	Part B	3.00 kg plastic jerrycan	
	Part C	15.00 kg plastic lined, double paper bag	
	Part A (pre-tinted)+B+C: 21.0 kg ready to mix units		
Shelf life	Part A	12 months from date of production.	
	Part B	12 months from date of production.	
	Part C	6 months from date of production.	
Storage conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.		
Appearance and colour	Part A (pre-tinted)	coloured liquid	
	Part B	brown liquid	
	Part C	natural grey powder	
	Note: When the Product is exposed to direct sunlight, there may be some discolouration and colour variation. This has no influence on the function and performance of the Product. For colour matching: Apply colour sample and confirm selected colour under real lighting conditions.		
Density	Mixed Product	~2.08 kg/l at +20 °C	(EN ISO 2811-1)

TECHNICAL INFORMATION

Shore D Hardness	~80 (cured 28 days at +23 °C / 50 % r.h.)	(ASTM D 2240)
Compressive strength	≥45 N/mm ² (cured 28 days at +23 °C / 50 % r.h.)	(ASTM C579)
Tensile strength in flexure	≥11 N/mm ² (cured 28 days at +23 °C / 50 % r.h.)	(ASTM C580)
Tensile adhesion strength	≥1.5 N/mm ² (or concrete failure)	(EN 1542)
Reaction to fire	Class B _{fl} -s1	(EN 13501-1)

SYSTEM INFORMATION

Systems	Please refer to the System Data Sheet of:	
	Sikafloor® PurCem® HS-21	Heavy to medium duty, self-leveling, smooth PUCEM hybrid screed
	Sikafloor® PurCem® HB-21	Heavy to medium duty, broadcasted, light anti-slip PUCEM, hybrid screed

APPLICATION INFORMATION

Mixing ratio	Mix full units only															
Consumption	~2.10 kg/m ² /mm Consumptions are theoretical and do not include any wastage, additional material need due to porosity, substrate profile etc.															
Layer thickness	Scratch coat: 1 - 2 mm Base and wear coat: 3 - 6 mm															
Ambient air temperature	+10 °C min. / +35 °C max.															
Relative air humidity	80 % 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 other disturbance of the surface on the floor finish.															
Substrate temperature	+10 °C min. / +30 °C max.															
Substrate moisture content	Can be installed on substrates with higher moisture content. No ponding water. Check rising moisture. The substrate needs to be visibly dry and have adequate pull-off strength min 1.5 N/mm ² .															
Pot Life	<table border="1"> <thead> <tr> <th>Temperatures</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>+10 °C</td> <td>~30 min</td> </tr> <tr> <td>+20 °C</td> <td>~20 min</td> </tr> <tr> <td>+30 °C</td> <td>~15 min</td> </tr> <tr> <td>+35 °C</td> <td>~10 min</td> </tr> </tbody> </table>	Temperatures	Time	+10 °C	~30 min	+20 °C	~20 min	+30 °C	~15 min	+35 °C	~10 min					
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Waiting time to overcoating	<p>Before overcoating the Product allow:</p> <table border="1"> <thead> <tr> <th><u>Substrate temperature</u></th> <th><u>Minimum</u></th> <th><u>Maximum</u></th> </tr> </thead> <tbody> <tr> <td>+10 °C</td> <td>24 hours</td> <td>72 hours</td> </tr> <tr> <td>+20 °C</td> <td>24 hours</td> <td>48 hours</td> </tr> <tr> <td>+30 °C</td> <td>12 hours</td> <td>24 hours</td> </tr> <tr> <td>+35 °C</td> <td>12 hours</td> <td>24 hours</td> </tr> </tbody> </table> <p>Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Note: If a primer other than a scratch coat of Sikafloor PurCem is applied, refer to the relevant PDS of the chosen product for curing times. Ensure that the primer or scratch coat is fully cured before the application of subsequent Sikafloor PurCem layers.</p>	<u>Substrate temperature</u>	<u>Minimum</u>	<u>Maximum</u>	+10 °C	24 hours	72 hours	+20 °C	24 hours	48 hours	+30 °C	12 hours	24 hours	+35 °C	12 hours	24 hours
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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.

FURTHER INFORMATION

Please refer to:

- Sikafloor® PurCem® Method Statement
- Sika® Method Statement Mixing and Application of Flooring Systems
- Sika® Method Statement Surface Evaluation & Preparation
- Sikafloor® PurCem® System Data Sheets

IMPORTANT CONSIDERATIONS

- Do not apply to PCC (polymer modified cement mortars) that may expand due to moisture when sealed with an impervious resin.
- Always ensure good ventilation when using Sikafloor®-21 PurCem® SA in a confined space, to prevent excessive ambient humidity.
- Freshly applied Sikafloor®-21 PurCem® SA must be protected from damp, condensation and direct water contact (rain) for at least 24 hours.
- The material must be conditioned by being stored in an area with an ambient temperature between +15°C and +25°C for a minimum of 48 hours before using.
- Protect the substrate during application from condensation from pipes or any overhead leaks.

- Do not apply to cracked or unsound substrates.
- Always allow a minimum of 48 hours after product application prior to placing into service in proximity with food stuffs.
- Products of the Sikafloor® PurCem® product range are subject to discolouration when exposed to UV radiation. Extent depends on colour. There are no measurable losses of any properties when this occurs and it is a purely aesthetical matter.
- Products can be used outside provided the change in appearance is acceptable for the customer.
- Dirt pick up in slow curing conditions In some slow curing conditions, soiling of the surface may occur when opened to foot traffic, even though mechanical properties have been achieved. Remove dirt using a dry mop or cloth. Do not scrub the Product with water for the first three days.

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The surface must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by vacuum. Pull of strength shall not be less than 1.5 N/mm². If in doubt apply a test area first.

MIXING

Premix Part A with a low speed electric stirrer and then add Part B and mix for 30 seconds. Use a double paddle (axis) mixer and gradually add Part C (aggregate) to the mixed resin. Allow Part C to blend for further 2 minutes minimum, to ensure complete mixing and a uniform moist mix is obtained. During the operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once (Parts A + B + C) to ensure complete mixing.

Mixing Tools

Use a low speed electric stirrer (300 - 400 rpm) for mixing parts A and B. For preparation of the mortar mix use a double paddle mixer.

APPLICATION

Prior to application, confirm substrate moisture content, relative humidity and dew point. As a scratch coat Sikafloor®-21 PurCem® SA can be applied using a steel trowel. As a body coat Sikafloor®-21 PurCem® SA can be applied using a toothed trowel or pin screed, to the desired thickness, or a steel trowel. Remove air with a spike roller.

For further details please refer to the related system data sheet.

CLEANING OF EQUIPMENT

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

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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ISO 9001, 14001, 45001 –
Lloyd's Register
Sika S.A. LLC
Sika International Chemicals LLC
ISO 9001, 14001, 45001 – SGS
Sika Gulf S.S.C. O.
ISO 9001, 14001 – SGS
Sika Saudi Arabia Limited

All products are supplied under
a management system certified
to conform to the requirements
of the quality, environmental
and occupational health &
safety standards ISO 9001, ISO
14001 and ISO 45001.



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Product Data Sheet

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