

PRODUCT DATA SHEET

Sikafloor®-21 PurCem® TH

SELF-LEVELLING POLYURETHANE-CEMENT FLOOR TOPPING

DESCRIPTION

Sikafloor®-21 PurCem® TH is a 3-part, water based high strength, duty, coloured polyurethane self-smoothing topping with extended potlife suitable for floors subject to abrasion, chemical exposure and other physical aggression.

USES

Sikafloor®-21 PurCem® TH is ideally suited for the following areas:

- Chemical processing
- Food processing and wet areas
- Brewing and dairy (clean areas)
- Engineering process areas
- Heavy duty traffic and plant areas
- Warehouse / Logistics areas

CHARACTERISTICS / ADVANTAGES

- Resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils
- Durable and resistant to abrasion and impact
- Containing anti-microbial agents

PRODUCT INFORMATION

Packaging	20 kg/sets (Parts A+B+C)
Appearance / Colour	<p>Seamless matt, smooth finish Standard Colours (approximate RAL) approx. RAL 1001 (beige) approx. RAL 3009 (oxide red) approx. RAL 7032 (pebble grey) approx. RAL 7045 (telegrey 1) approx. RAL 7015 (slate grey) approx. RAL 6010 (grass green) approx. RAL 6018 (yellow green)</p> <p>All colours are approximate in relation to printed colour charts as the degree of gloss and limitations in colour reproduction techniques can affect appearance.</p>
Shelf life	6 months from the date of production If stored properly in undamaged, original, sealed packaging.
Storage conditions	Store in dry conditions at temperatures between +10°C and +30°C.

Density 1.85 - 1.95 kg/L

TECHNICAL INFORMATION

Compressive Strength	58 N/mm ²	(BS 6319 Part 2)
Tensile Strength in Flexure	18 N/mm ²	(BS 6319 Part 3)
Tensile Adhesion Strength	> 1.5 N/mm ² (failure in concrete)	
Chemical Resistance	Please refer to separate Sikafloor® PurCem® chemical resistance chart	
Temperature Resistance	The product is not designed to withstand thermal shock.	
Service Temperature	60°C max.	

APPLICATION INFORMATION

Consumption Primer 1.5-2.0 kg/m² per coat

Top coat

3 mm thickness	5.5 - 6.0 kg/m ²
4 mm thickness	7.3 - 8.0 kg/m ²
5 mm thickness	9.2 - 10.0 kg/m ²
6 mm thickness	11.0 - 12.0 kg/m ²

Consumption

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

Layer Thickness 3 mm min. / 6 mm max.

Relative Air Humidity 75% 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 15°C min. / 30°C max.

Pot Life

Temperature	Time
+ 25°C	~ 15 minutes
+ 35°C	~ 8 minutes

Curing Time

Substrate Temperature	Foot Traffic	Light Traffic	Full Cure
25°C	12 hours	36 hours	7 days
35°C	8 hours	24 hours	5 days

All cure times are approximate and will be affected by changing ambient conditions.

Waiting Time / Overcoating

Substrate temperature	Maximum	Minimum
20°C	~ 12 hours	~ 72 hours

*Always make sure primer is fully cured before application.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Substrate Quality

- The substrate must be dry and free of all contaminants such as oil, grease, coatings and surface treatments, etc.
- 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.
- If in doubt, apply a test area first.

Substrate Preparation / Priming

- Concrete substrates should be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve a profiled open texture surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to substrate, filling of blow holes / voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
- High spots can be removed by 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

Mixing Tool

Use a low speed drill (500 rpm) and a helical mixer to mix Sikafloor®-21 PurCem® TH Parts A and B.

Mixing Time

Prior to mixing, stir Part A (resin) well, then add all of Part B (hardener) and mix both liquid parts thoroughly with a low speed electric stirrer for a minimum of one minute until a uniform mix has been achieved. Gradually add Part C (aggregate) to the mixed resin parts in the mixer for a further 3 minutes minimum, until a uniform moist mix is obtained.

APPLICATION

After the substrate have been primed with Sikafloor® -21 PurCem®, allow curing time of minimum 8 hours (at 30°C)

Pour the mixed Sikafloor®-21 PurCem® TH onto the primed (Sikafloor® -21 PurCem®) substrate and spread evenly with a trowel or rake to the required levels, achieving a flat surface.

Light spike rolling should be carried out within 3 minutes of application in order to avoid interfering with the film gel time.

CLEANING OF EQUIPMENT

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

IMPORTANT CONSIDERATIONS

- Freshly applied Sikafloor®-21 PurCem® TH should be protected from damp, condensation and water for at least 24 hours.
- To ensure the finished system remains fully bonded to the substrate, it is recommended that retaining slots of 5 mm deep by 5 mm wide are formed, running at 150 mm from and parallel to the walls and all edges.
- Retaining slots are also recommended at day joints
- For older floors, additional keying may be achieved by providing 5 mm x 5 mm. grooves diagonally into the floor every m² of floor area.
- Always ensure good ventilation when using Sikafloor®-21 PurCem® TH in a confined space.

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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