

## PRODUCT DATA SHEET

# Sikafloor<sup>®</sup>-24 PurCem<sup>®</sup>

MEDIUM TO HEAVY DUTY TEXTURED OR SMOOTH, 1.5-3.0MM POLYURETHANE HYBRID FLOOR

### DESCRIPTION

Sikafloor<sup>®</sup>-24 PurCem<sup>®</sup> is a Food grade approved, fast turn around, water-based coloured polyurethane hybrid that can produce a smooth or textured, matt, impervious and hard wearing surface.

Sikafloor<sup>®</sup>-24 PurCem<sup>®</sup> is typically installed at 1.5–3.0 mm thickness.

It is designed to be used as new floor or for fast refurbishment of existing resin based floors.

VOC - Australian Standards ASTM D3960 - Green Star Building Council V2 IEQ-13 V1 IEQ-11

### USES

Sikafloor<sup>®</sup>-24 PurCem<sup>®</sup> suitably experienced and trained specialist contractors.

- Food and Beverage processing -dry or wet areas
- Food facilities - Re surfacing/refurbishing existing seamless floors
- Engineering process areas
- Warehouse logistics
- Manufacturing facilities.
- Warehouse floor refurbishment.

### CHARACTERISTICS / ADVANTAGES

- Fast cure - short down time
- HACCP - Food grade approval
- Good chemical resistance
- High mechanical resistance
- High glass transition point
- Non tainting /odourless
- Low VOC
- Can be applied to substrates with high moisture content (7 days old or mature damp concrete or 10% moisture pbw)

### SUSTAINABILITY

#### LEED<sup>®</sup> Rating

Confirms Section FQ (Indoor Environment Quality), Credit 4.2 Low Emitting Materials Paints and Coatings (VOC content ≤ 50 g/l).

## APPROVALS / CERTIFICATES

- HACCP- Food Safety Certification - Food Zone Classification: SSZ
- VOC - Aust. Standards ASTM 4586 - 2013 Green Star Building Council V2 IEQ-13 V2 IEQ-11
- Fire - Critical Radiant Flux - Pass AS/ISO 9239.1 AP VS0209
- Synthetic resin screed material according to EN 13813:2002, Declaration of Performance 02 08 02 001 0 000017 1088, certified by notified factory production control certification body 0086, certificate of conformity of the factory production control 541325, and provided with the CE marking.
- Coating for surface protection of concrete according to EN 1504-2:2004, Synthetic resin screed material according to EN 13813:2002, Declaration of Performance 02 08 02 02 001 0 000017 1088, certified by notified factory production control certification body 0086, certificate of conformity of the factory production control 541325, and provided with the CE marking.
- EN1186, EN 13130, and prCEN/TS 14234 standards, and the Decree on Consumer Goods, representing the conversion of directives 89/109/EEC, 90/128/EEC and 2002/72/EC for contact with food stuffs, according to test report by ISEGA, 32054 U11 and 32759 U11, both dated August 16th, 2012. (Tests performed on Sikafloor® -24N PurCem® (CN) version).
- Slip resistance properties according to DIN 51130 tested at MPI (Materialprüfung und Entwicklung), test reports refs. N° 12-6638-S/12 dated August 7th, 2012.
- Thermal expansion coefficient and freeze-thaw cycle resistance performed at RWTH / IBAC, report No. M-1614 dated May 29th, 2012.

## PRODUCT INFORMATION

<b>Composition</b>	Water-based polyurethane cement hybrid	
<b>Packaging</b>	Sikafloor®-24 PurCem®	Full kit
	Part A (neutral)	2.80 kg plastic container
	Part B	3.00 kg plastic container
	Part C	9.00 kg plastic bag
	Part D Pigment	0.4 kg plastic tub
	Part A (neutral)+B+C+D: 15.2 kg (8.5L) ready to mix units	
<b>Appearance / Colour</b>	Sikafloor®-24 PurCem®	
	Part A (neutral)	light beige liquid
	Part B	brown liquid
	Part C	natural grey powder
	Part D	colourpack as per list below for part A neutral
<b>Standard RAL colours:</b> Traffic Grey 7042, Dusty Grey 7037, Curtain Call S46B9, Oxide red 3009, Sky Blue 5015, Beige 1001 <b>Available on request:</b> Grass Green 6010, Maize Yellow 1006,		

<b>Shelf life</b>	Part A	9 months from date of production.
	Part B	6 months from date of production.
	Part C	6 months from date of production. <b>Must be protected from humidity.</b>
	Part D	9 months from date of production.

<b>Storage conditions</b>	The package must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +30 °C.
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<b>Density</b>	Part A (neutral)+B+C+D mixed: ~ 1.75 kg/l ± 0.03 (at +20 °C) 8.5 - 8.7 L volume
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## TECHNICAL INFORMATION

<b>Abrasion Resistance</b>	1200mg loss - Taber abrasion test	
<b>Compressive Strength</b>	~40N/mm <sup>2</sup> (28 days at +23°C / 50% r.h.)	(BS EN 13892-2)
<b>Tensile Strength in Flexure</b>	~16 N/mm <sup>2</sup> (28 days at +23°C / 50% r.h.)	(BS EN 13892-2)
<b>Tensile Adhesion Strength</b>	concrete failure >1.5Mpa	(EN 1542)

**Chemical Resistance** Excellent resistance to a range of chemicals - Refer to Sikafloor PurCem chemical resistance chart

**Service Temperature** Refer to Sika Technical Department for direction

## SYSTEMS

<b>Systems</b>	Please refer to the System Data Sheet of:	
	<b>Sikafloor® PurCem® HS-24</b>	Medium duty, smooth, self-leveling floor 1.50-2.0mm
	<b>Sikafloor® PurCem® HB-24</b>	Heavy to medium duty, broadcasted, textured anti-slip floor 2.0-3.0mm
	<b>Sikafloor® PurCem® HB-22</b>	Heavy duty textured floor (As a scratch/prime coat)

## APPLICATION INFORMATION

**Mixing Ratio** **Mix full units only.**

**Ambient Air Temperature** +10 °C min. / +40 °C max.

**Consumption** ~1.75 kg/m<sup>2</sup>/mm

**Layer Thickness**  
Scratch coat: 0.5-1.0mm  
Base: (As smooth system) 1.5-2.0mm  
Textured system: 2.0-3.0 mm

**Relative Air Humidity** 85 % 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. / +40 °C

**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<sup>2</sup>.

<b>Pot Life</b>	<b>Temperatures</b>	<b>Time</b>
	+10 °C	~ 35-40 minutes
	+20 °C	~ 22-25 minutes
	+30 °C	~ 15-18 minutes
	+35 °C	~ 12-15 minutes

**Curing Time** Before overcoating Sikafloor®-24 PurCem® allow:

<b>Substrate temperature</b>	<b>Minimum</b>	<b>Maximum</b>
+10 °C	8-9 hours	72 hours
+20 °C	5-6 hours	48 hours
+30 °C	4-5 hours	24 hours

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

If faster curing is required use Sikafloor PurCem Accelerator.

Addition rate for temps between 18-23 degrees C is 15mls per 15.2kg kit.

## 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/mm<sup>2</sup>. 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. For the colourpack version, premix part A neutral with a low speed electric stirrer and add part D to it. Mix until a uniform colour is achieved. 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®-24 PurCem® can be applied using a steel trowel. As a body coat Sikafloor®-24 PurCem® can be applied using a toothed trowel or pin screed, or a steel trowel. Remove air with a spike roller.

If creating a PurCem HB-24 textured floor, broadcast desired grade of Silica sand or Sikafloor Broadcast B1 Bauxite to excess.

Be aware of open time to keep up with the initial set time of the Sikafloor®-24 PurCem® base.

Once sufficiently hard to accept a persons weight, remove all broadcast excess by sweeping and vacuuming. Apply finish coats of Sikafloor 31 or 33 PurCem as per instructions of those TDS.

The mixing and placement of the the Sikafloor®-24 PurCem® base and any finish coats must be carried out strictly in accordance with application guidelines.

Failure to do so will adversely affect set times and the appearance of the finished product related to evenness and colour.

If using Sikafloor®-24 PurCem® as an overlay system on existing resin floors, observe the correct methods for preparation.

Refer to Sika Technical Dept. for direction

#### CLEANING OF EQUIPMENT

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

#### 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®-24 PurCem® in a confined space, to prevent excessive ambient humidity.
- Freshly applied Sikafloor®-24 PurCem®, must be pro-

ected from damp, condensation and direct water contact (rain) for at least 24 hours.

- 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. Extend 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 by the customer.
- In some slow curing conditions, soiling of the surface may occur when opened to foot traffic, even though mechanical properties have been achieved. It is advised to remove dirt using a dry mop or cloth. Avoid scrubbing with water for the first three days.

#### 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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

#### ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the latest Safety Data Sheets (SDS) for 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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