

## SYSTEM DATA SHEET

# Sikafloor® PurCem® HB-23

### HIGH TEXTURED, BROADCAST, MATT FINISH POLYURETHANE CEMENT HYBRID FLOORING SYSTEM

#### PRODUCT DESCRIPTION

Sikafloor® PurCem® HB-23 system is made with polyurethane cement technology and is part of the Sikafloor® PurCem® flooring range. The Sikafloor® PurCem® HB-23 system is especially designed for areas where increased safety level is required against slipping due to its defined surface texture.

It is designed to withstand chemical attack, high impact and can be used in wet and dry processing plants. The system consists of a highly durable polyurethane cement body coat, broadcast with defined aggregates for increase slip resistance and sealed with a pigmented top coat making the system easy to maintain.

#### USES

Sikafloor® PurCem® HB-23 may only be used by experienced professionals.

- Food and beverage industries, wet or dry processes
- Pharmaceutical industries
- Chemical industries

#### CHARACTERISTICS / ADVANTAGES

- High chemical resistance. Resists a wide range of organic and inorganic acids, alkalis, amines, salts and solvents
- Good resistance to fire
- High mechanical and abrasion resistance
- Easy application
- Easy to clean and maintain
- Seamless
- Anti-slip surface
- Tolerant to moisture in the substrate
- Very good life cycle cost performance

#### ENVIRONMENTAL INFORMATION

- Very low VOC emissions, as tested externally at Eurofins, according to AgBB guidelines, test report n° 392-2014-00087001A\_02.

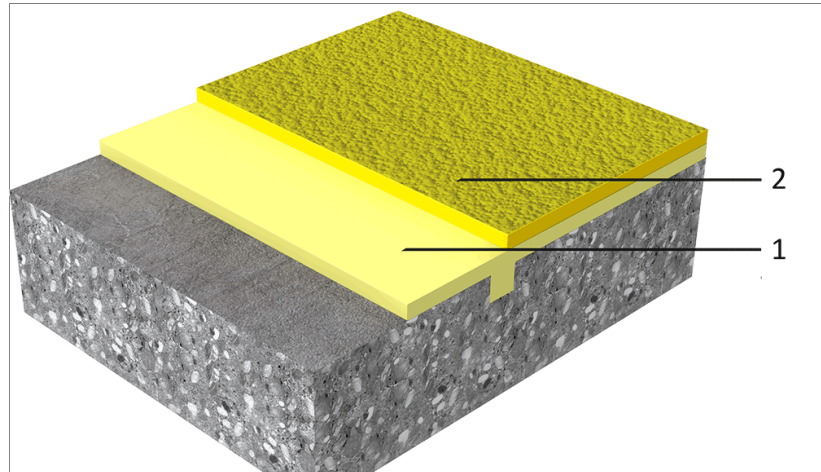
#### APPROVALS / STANDARDS

- Fire classification acc. to EN 13501-1, Test report number 317050 by Exova Warrington Fire, Warrington UK.
- ISEGA tested on 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, Registered N° 32758 U11 and 32759 U11, both dated December 6th, 2011.
- Certified as suitable for use in food and beverage facilities that operate in accordance with a HACCP based Food Safety Programme.
- Screed material for floor screeds according to EN 13813:2002, certified by notified factory production control body 0086, certificate of conformity of the factory production control 541325, and provided with the CE-mark
- Surface protection coating for concrete according to EN 1504-2:2004, certified by notified factory production control body 0086, certificate of conformity of the factory production control 541325, and provided with the CE-mark
- Slip resistance tested by MPI Adendorf, Germany certificate 12 7015 - S / 14.

# SYSTEM INFORMATION

## System Structure

## Sikafloor® PurCem® HB-23



Layer	Product
Scratch coat (optional)	Sikafloor®-21 PurCem®
1. Base coat	Sikafloor®-21 PurCem® + Aggregate broadcast 1.2–2.0 mm
2. Top coat	Sikafloor®-31 PurCem®

Composition	Water-based polyurethane cement hybrid
Appearance	High texture, matt finish
Colour	Beige, Golden Yellow, Carmine Red, Ultramarine Blue, Yellow Green, Pebble Grey, Dusty Grey, Agate Grey
Nominal Thickness	~ 4.5-6 mm
Volatile organic compound (VOC) content	Very low content of volatile organic compounds, it fulfils the stringent demands for indoor air quality and low VOC emitting products AgBB.

## TECHNICAL INFORMATION

Water Absorption	<0.10 %	(ASTM C 413)
Abrasion Resistance	Class "Special" Severe abrasion resistance	(BS 8204 Part 2)
	AR 0.5	(EN 13892-4)
	Class A6	(EN 13892-3)
	< 3000 mg (H-22/1000/1000)	(ASTM D 4060-01)
Resistance to Impact	Class III (≥ 20Nm)	(ISO 6272)
Indentation	0	(MIL – PFR 24613)
Compressive Strength	>50 N/mm <sup>2</sup> after 28 days at +23°C / 50% r.h.	(BS EN 13892-2)
Tensile Adhesion Strength	> 2.0 N/mm <sup>2</sup>	(EN1542)
Reaction to Fire	B <sub>fi</sub> -s1	(EN 13501-1)
Chemical Resistance	Please refer to Sikafloor® PurCem® chemical resistance guide. Contact Sika technical service for specific information.	
Thermal Resistance	<b>4.5 mm</b>	<b>6 mm</b>
	-15 °C to +70 °C	-25 °C to +80 °C

Permeability to Water Vapour	0.260 g/h/m <sup>2</sup> (1.2 mm)	(ASTM E-96)
Capillary Absorption	< 0.016 kg/(m <sup>2</sup> ×h <sup>0.5</sup> )	(EN 1504-2)
USGBC LEED Rating	Conforms Section EQ (Indoor Environmental Quality), Credit 4.2 Low-Emitting Materials Paints and Coatings. Calculated VOC content ≤ 50 g/l	
Skid / Slip Resistance	R13/V10	(DIN 51130)

## APPLICATION INFORMATION

Consumption	<b>Layer</b>	<b>Product</b>	<b>Consumption</b>	
	Scratch coat (optional)	Sikafloor®-21 PurCem®	~ 3 kg/m <sup>2</sup>	
	1. Base coat	Sikafloor®-21 PurCem® + Aggregate broadcast 1.2–2.0 mm	~ 1.9 kg/m <sup>2</sup> /mm ~ 4–5 kg/m <sup>2</sup>	
	2. Top coat	Sikafloor®-31 PurCem®	~ 0.8–1.0 kg/m <sup>2</sup>	
Consumptions are theoretical and do not include any wastage, additional material need due to porosity, substrate profile etc.				
Product Temperature	Please refer to the individual Product Data Sheet			
Ambient Air Temperature	+10 °C min / +40 °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 / +40 °C max			
Substrate Moisture Content	Sikafloor® PurCem® HB-23 can be installed on substrates with higher moisture content. The substrate needs to be visibly dry and have an adequate pull-off strength min 1.5 N/mm <sup>2</sup> . No ponding water. Check for rising moisture.			
Applied Product Ready for Use	<b>Temperature</b>	<b>Foot traffic</b>	<b>Light traffic</b>	<b>Full cure</b>
	+10 °C	~ 36 hours	~ 72 hours	~ 7 days
	+20 °C	~ 12 hours	~ 48 hours	~ 3 days
	+30 °C	~ 7 hours	~ 36 hours	~ 2 days

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

## PRODUCT INFORMATION

Packaging	Please refer to the individual Product Data Sheet
Shelf Life	Please refer to the individual Product Data Sheet
Storage Conditions	Please refer to the individual Product Data Sheet

## MAINTENANCE

### CLEANING

Please refer to Sikafloor®- Cleaning Regime.

## FURTHER DOCUMENTS

Please refer to:

- Sikafloor® PurCem® Information Manual
- Sika® Information Manual Mixing and Application of Flooring Systems
- Sika® Information Manual Surface Evaluation & Preparation
- Sikafloor® PurCem® Product Data Sheets

## LIMITATIONS

- 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® PurCem® products in a confined space, to prevent excessive ambient humidity.
- Freshly applied Sikafloor® PurCem® products, must be protected 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.
- 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 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.

## 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.

### SIKA LIMITED

Watchmead  
Welwyn Garden City  
Hertfordshire, AL7 1BQ  
Tel: 01707 394444  
Web: [www.sika.co.uk](http://www.sika.co.uk)  
Twitter: @SikaLimited



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## 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.

## 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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