

SYSTEM DATA SHEET

Sikafloor® PurCem® HB-21

Heavy duty, light textured polyurethane cement hybrid flooring system

SIKA NZ
APPROVED
CONTRACTOR
ONLY

DESCRIPTION

Sikafloor® PurCem® HB-21 is a light textured coloured flooring screed suitable for areas subject to high temperature shocks and heavy loading, abrasion and chemical exposure. Sikafloor® PurCem® HB-21 is based on polyurethane cement technology and is part of the Sikafloor® PurCem® flooring range.

USES

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

The System can be used in industrial buildings such as:

- Chemical and processing facilities
- Food and beverage facilities
- Catering and industrial kitchens
- Manufacturing facilities and workshops
- Mining and metal processing facilities
- Recycling plants

CHARACTERISTICS / ADVANTAGES

- High abrasion resistance
- Good resistance to specific chemicals
- Easy to clean and maintain
- Good impact resistance
- Good slip resistance
- Seamless and hygienic
- Tolerant to substrates with high moisture content

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations.
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients.

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings.
- Complies AgBB for use in indoor environment. Test.

APPROVALS / STANDARDS

- Slip resistance test DIN 51130, Roxeler, No. 020070-21-11
- Polyurethane screed for concrete protection according to the requirements of EN 1504-2:2004 and conforms to the requirements of EN 13813: 2002, DoP 02 08 02 02 001 0 000002 1088, certified by Factory Production Control Body, 0086, certificate 541325, and provided with the CE-mark.
- 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, 32758 U11 and 32759 U11, both dated December 6th, 2011. (Tests performed on Sikafloor® -20/21/22/29 and 31 PurCem® in standard and LP versions).
- Campden and Chorleywood Food Research Association, Ref. S/REP/125424/1a and 2a, dated 8th February, 2012.
- Fire classification report according to EN 13501-1 from Exova Warrington Fire for Sikafloor®-21 PurCem® No.317047, dated 24th of March, 2012.
- Liquid water transmission rate test report from the Technology Centre, Ref. 15456 dated January 25th, 2012.
- Abrasion resistance tests performed by Face Consultants Ltd., according to BS 8204-2:2003, report ref. FC/12/3850, dated January 17th, 2012. (Tests performed on Sikafloor® -20/21 PurCem®).
- Impact resistance values tested at PRA, Ref. n° 75221-151, dated January 11th, 2012.
- Slip resistance properties according to DIN 51130 tested at MPI (Materialprüfung und Entwicklung), test reports refs. N° 12-6639-S/12 and 12-6641-S/12,

SYSTEM DATA SHEET

Sikafloor® PurCem® HB-21
December 2023, Version 04.01
020814900000000001

dated August 7th, 2012.

- Thermal expansion coefficient and freeze-thaw cycle resistance performed at RWTH / IBAC, report n° M1614 dated May 29th, 2012.

SYSTEM INFORMATION

System Structure	Layer	Product
	1. Primer or scratch coat	Sikafloor®-21 PurCem® or Optional primers before scratch coat: Sikafloor®-150 Sikafloor®-151 + quartz sand 0.4–0.8 mm broadcast in excess or Sika® Aggregate-501 Refer to the individual Product Data Sheets. For further information, contact Sika Technical services
	2. Wearing layer + Broadcast in excess	Sikafloor®-21 PurCem® quartz sand 0.3–0.8 mm or Sika® Aggregate-501
	3. Seal coat or top coat	Sikafloor®-31 PurCem®
Composition	Water-based polyurethane cement hybrid	
Appearance	Cured system appearance	Light textured matt finish
Colour	Cured system colour	Pebble Grey, Beige, Golden Yellow, Dusty Grey, Carmine Red, Agate Grey, Marine Blue, Yellow Green
Nominal thickness	4 mm to 9 mm	

TECHNICAL INFORMATION

Compressive Strength	Cured 28 days at +23 °C	> 50 MPa	(EN 13892-2)
Tensile Adhesion Strength	≥ 2.5 (2.0) MPa		(EN 1542)
Reaction to Fire	Class B _{fl} -s1		(EN 13501-1)
Chemical Resistance	Refer to the chemical resistance of Sikafloor®-31 PurCem®		
Skid / Slip Resistance	Class	R 11	(DIN 51130)
Service Temperature	System thickness	Minimum	Maximum
	4 mm	-15 °C	+70 °C
	6 mm	-25 °C	+80 °C

APPLICATION INFORMATION

Consumption	Layer (Optional) Primer or scratch coat	Product Sikafloor®-21 PurCem®	Consumption ~3 kg/m ²	
	Wearing layer + Broadcast in excess	Sikafloor®-21 PurCem® quartz sand 0.3–0.8 mm or Sika® Aggregate-501	~1.9 kg/m ² per mm thickness ~4–5 kg/m ²	
	Seal coat or top coat	Sikafloor®-31 PurCem®	~0.6–0.8 kg/m ²	
Ambient Air Temperature	Minimum	+10 °C		
	Maximum	+35 °C		
Relative Air Humidity	Maximum	80 %		
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	Minimum	+10 °C		
	Maximum	+35 °C		
Substrate Moisture Content	Sikafloor®-21 PurCem® 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 MPa. No ponding water. Check for rising moisture.. Note: Epoxy primers are not suitable for application onto a high substrate moisture content.			
Applied Product Ready for Use	Temperature	Foot traffic	Light traffic	Full cure
	+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, particularly temperature and relative humidity.				

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.

FURTHER DOCUMENTS

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

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.

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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SYSTEM DATA SHEET

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December 2023, Version 04.01
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