

SYSTEM DATA SHEET

Sikafloor® PurCem® HM-20

HIGH STRENGTH-TROWEL GRADE, HEAVY DUTY POLYURETHANE CEMENT HYBRID FLOORING SYSTEM

DESCRIPTION

Sikafloor® PurCem® HM-20 is made with polyurethane cement technology and is part of the Sikafloor® PurCem® flooring range. Sikafloor® PurCem® HM-20 is a trowel applied coloured modified polyurethane mortar screed resin suitable for floors subject to heavy loading, abrasion and chemical exposure. It has a textured aggregate surface providing medium to heavy profile slip resistance and is typically installed at 6 to 9 mm thick. Suitable for use in hot and tropical climatic conditions.

USES

Sikafloor® PurCem® HM-20 may only be used by experienced professionals.

- Food processing plants, in wet or dry process areas, freezers and coolers, thermal shock areas
- Chemical plants
- Laboratories
- Workshops

CHARACTERISTICS / ADVANTAGES

- High chemical resistance. Resists a wide range of organic and inorganic acids, alkalis, amines, salts and solvents
- Good resistance to fire
- Steam cleanable at 9 mm thick
- High mechanical and abrasion resistance
- Easy application. Normally, no concrete primer or sealer required
- Fluid consistency requires less labour to install than conventional heavy duty modified PU trowel grade screeds
- Easy to clean and maintain
- Seamless, non-taint, odourless
- Smooth, matt surface
- Tolerant to moisture in the substrate
- Very good life cycle cost performance

APPROVALS / CERTIFICATES

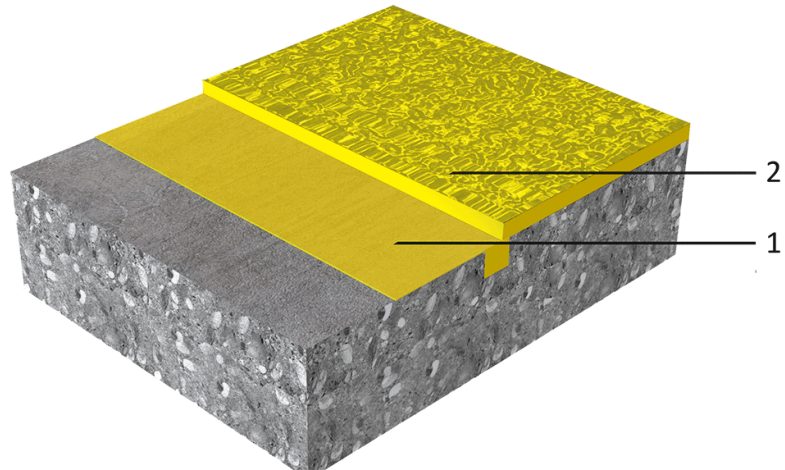
- Certified as suitable for use in food and beverage facilities that operate in accordance with a HACCP based Food Safety Programme.
- Compliant with USDA flooring requirements
- Canadian Food Inspection Agency acceptance for use in food plants in Canada.
- British Standards Specifications (BSS) acceptance for use in the UK. Campden and Chorleywood Food Research Association, Reference S/REP/125424/1a and 2a, dated 8th February, 2012

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

SYSTEMS

System Structure **Sikafloor® PurCem® HM-20**



Layer	Product
1. Scratch coat (optional)	Sikafloor® -21 PurCem® (AE) + Quartzsand 0.4 - 0.8 mm light broadcast
2. Body coat	Sikafloor®-20 PurCem® (AE)

As optional primers Sikafloor®-161 + quartz sand 0.4 - 0.8 mm broadcast to excess can be used. Please refer to the individual Product Data Sheet.

Composition	Water-based polyurethane cement hybrid
Appearance	Textured surface, matt finish
Colour	Beige, maize yellow, oxide red, grass green, dusty grey, slate grey, traffic grey
Nominal Thickness	~6 - 9 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

Shore D Hardness	~80-85	(ASTM D 2240)
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 (≥ 20 Nm)	(ISO 6272)
	2 pounds / 30 inches (3 mm thick)	(ASTM D 2784)
Compressive Strength	> 40 N/mm ² (28 d / +23 °C / 50 % r.h.)	(BS EN 13892-2)
	> 40 N/mm ² (after 28 d / +23 °C / 50 % r.h.)	(ASTM C 579)

Tensile Adhesion Strength	Concrete failure	(EN1542)				
Reaction to Fire	Bfl-s1	(EN 13501-1)				
Chemical Resistance	Please refer to Sikafloor® PurCem® chemical resistance guide. Contact Sika technical service for specific information.					
Temperature Resistance	<table border="1"> <tr> <td>6 mm</td> <td>9 mm</td> </tr> <tr> <td>-25 °C to +80 °C</td> <td>-40 °C to +120 °C</td> </tr> </table>	6 mm	9 mm	-25 °C to +80 °C	-40 °C to +120 °C	
6 mm	9 mm					
-25 °C to +80 °C	-40 °C to +120 °C					
	Sikafloor® PurCem® HM-20 is fully resistant to liquid spillage and discharge. Sikafloor® PurCem® HM-20 is designed to withstand thermal shock caused by steam cleaning when thickness is 9 mm.					
Permeability to Water Vapour	0.148 g / h / m ² (6.1 mm)	(ASTM E-96)				

APPLICATION INFORMATION

Consumption	Layer	Product	Consumption
	1. Scratch coat (optional)	Sikafloor®-21 PurCem® (AE) + Quarzsand 0.4 - 0.8 mm light broadcast	~2.9 kg/m ² (1.5 mm) ~2.0 - 2.5 kg/m ²
	2. Body coat	Sikafloor®-20 PurCem® (AE)	~2.0 kg/m ² /mm

Consumptions are theoretical and do not include any wastage, additional material need due to porosity, substrate profile etc.

Applied Product Ready for Use	Temperature	Foot traffic	Light traffic	Full cure
	+10 °C	~24 h	~36 h	~7 d
	+20 °C	~12 h	~18 h	~5 d
	+30 °C	~8 h	~15 h	~3 - 4 d

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

MAINTENANCE

CLEANING

Please refer to Sikafloor®- Cleaning Regime.

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® Product Data Sheets

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.

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® 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

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.

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 the exact product data and uses.

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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ISO 9001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd,
Sika Qatar LLC
ISO 14001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd
OHSAS: Sika UAE LLC,
Sika Gulf B.S.C. (c)

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 OHSAS
18001.

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