

## PRODUCT DATA SHEET

# Sikafloor®-24 PurCem CN

Medium duty self-levelling polyurethane screed for hygienic area

### DESCRIPTION

Sikafloor®-24 PurCem CN is self-levelling, medium duty, coloured, four-part, odourless, water dispersed polyurethane-based / cement and aggregate screeds designed to provide good resistance to abrasion, impact, chemical attack and other physical aggression. Sikafloor®-24 PurCem CN has an aesthetic, easy to clean, smooth aggregate texture. The system is typically installed at 2 to 6 mm thickness.

### USES

Sikafloor®-24 PurCem CN may only be used by experienced professionals.

- Typically used in food processing plants, wet & dry process areas, freezers & coolers, dairies, breweries, wineries, distilleries, laboratories, chemical process plants, pulp and paper plants, warehouses and storage areas.

### CHARACTERISTICS / ADVANTAGES

- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Sika Technical Sales for full details. Refer to the Sikafloor® PurCem (CN) Chemical Resistance Chart.
- Similar coefficient of thermal expansion to concrete allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -20°C up to 80°C.
- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- High abrasion qualities result from its pure silica aggregate structure.
- Extra Expansion joints are not necessary; simply maintain and extend existing expansion joints up through the Sikafloor® PurCem (CN) Flooring System.
- Easily maintained.

### ENVIRONMENTAL INFORMATION

#### LEED® Rating

- Confirms Section FQ (Indoor Environment Quality), Credit 4.2 Low Emitting Material Paints and Coatings (VOC content ≤ 50 g/L).
- Sikafloor®-24 PurCem CN is listed on the Eco-Product Directory as environmentally friendly product choice for green building initiatives. (Application No : PL-01396-2022)

### APPROVALS / STANDARDS

- HACCP approved material
- Synthetic resin screed material according to EN13813:2002, Declaration of Performance 02 08 02 02001 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 32759U11, 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.
- Slip resistance properties according to DIN 51130 tested at MPI (Materialprüfung und En-

## PRODUCT INFORMATION

<b>Chemical Base</b>	Waterborne polyurethane composite mortar		
<b>Packaging</b>	Toner version		Color paste version
	Part A: 5 kg/pail		Part A: 5 kg/pail
	Part B: 5 kg/pail		Part B: 5 kg/pail
	Part C: 21.8 kg/bag		Part C: 23 kg/bag
	Part D: 1.6 kg/bag		Part D: 0.5 kg/bag
	Part A+B+C+D: 33.4 kg		Part A+B+C+D: 33.5 kg
<b>Shelf Life</b>	Part A & B	12 months	
	Part C & D	6 months	
<b>Storage Conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions, protect from direct sunlight and frost. Always refer to packaging.		
<b>Appearance / Colour</b>	Available in eight colour shades: Beige, Maize Yellow, Oxide Red, Grass Green, Slate Grey, Dusty Grey, Traffic Grey, Sky-blue(color paste version only). Applied colours selected from colour charts will be approximate. Custom colors subject to minimum orders.		
<b>Density</b>	Mixing Units	~ 1.93 kg/L	GB/T 6750
	Volatile Organic Compound (VOC) Content < 30 g/L		
			JC/T 2327-2015

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~80	JC/T 2327-2015
<b>Abrasion Resistance</b>	< 0.15 g	JC/T 2327-2015
<b>Resistance to Impact</b>	Heavy duty (1000g)	JC/T 2327-2015
<b>Compressive Strength</b>	24 hours	~27 MPa
	7 days	~37 MPa
	28 days	~40 MPa
<b>Tensile Strength in Flexure</b>	~14.7 MPa	JC/T 2327-2015
<b>Tensile Strength</b>	~6.5 MPa	JC/T 2327-2015
<b>Tensile Adhesion Strength</b>	≥ 2.0 MPa (failure in concrete)	JC/T 2327-2015
<b>Chemical Resistance</b>	Resistant to many chemicals. Please ask for a detailed chemical resistance table.	

## SYSTEM INFORMATION

<b>Systems</b>	Coating System	Product
	Primer	Sikafloor®-24 PurCem CN
	Seal coat	Sikafloor®-24 PurCem CN

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Parts A:B:C:D= Mix full units only.
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Consumption	Coating System	Product	Consumption	
	Primer	Sikafloor®-24 PurCem CN	1.5 - 2.0 kg/m <sup>2</sup> /mm	
	Seal coat	Sikafloor®-24 PurCem CN	~2.0 kg/m <sup>2</sup> /mm	
<p>Note: These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.</p>				
<b>Ambient Air Temperature</b>	+10 °C min./+30°C max. Optimal application temperatures range : 15°C - 25°C			
<b>Relative Air Humidity</b>	80% r.h. max.			
<b>Dew Point</b>	Beware of condensation! The substrate and uncured floor must be at least 3°C above the dew point to reduce the risk of condensation or blooming on the floor finish.			
<b>Substrate Temperature</b>	+10°C min. / +30°C max.			
<b>Substrate Moisture Content</b>	< 4% pbw moisture content. Test method: Sika®-Tramex meter or CM - measurement. No rising moisture according to ASTM (Polyethylene-sheet).			
<b>Pot Life</b>	Temperature	Time		
	+20 °C	~25 minutes		
<b>Curing Time</b>	Temperature/ Thickness	Foot traffic	Light traffic	Full cure
	+20°C / 4mm	10~12 hours	14~16 hours	5 days
<p>Note: At low temperature the curing need longer time.</p>				
<b>Waiting Time / Overcoating</b>	Before applying Sikafloor®-24 PurCem CN on Sikafloor®-24 PurCem CN allow:			
	Substrate temperature	Minimum	Maximum	
	+10°C	~24 hours	~12 days	
	+20°C	~12 hours	~7 days	
+30°C~	~6 hours	~4 days		
<p>Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.</p>				

## 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.

## LIMITATIONS

- Do not apply to un-reinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminium, soft wood, or urethane composition, elastomeric membranes, fibre reinforced polyester (FRP) composites.
- Protect substrate during application from condensation from pipes or any overhead leaks.
- Do not apply to vertical or overhead surfaces / for vertical surfaces refer to Sikafloor® 29N PurCem (CN).
- Do not mix Sikafloor®-24 PurCem CN materials by hand, use mechanical mix only.
- Steam cleaning may lead to delamination due to

thermal shock (Use Sikafloor®-19N PurCem (CN) or Sikafloor®-20N PurCem (CN) ).

- Colour uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor®-24 PurCem CN products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- 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® (CN) product range are subject to yellowing when exposed to UV radiation. There are no measurable losses of other properties when this occurs and it is a purely aesthetic matter. Products can be used outside provided the change in appearance is acceptable by the customer.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS

provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### EQUIPMENT

Sikafloor®-24 PurCem CN must be thoroughly mixed using a low speed electric stirrer (400 -600rpm) or other suitable equipment.

### SUBSTRATE QUALITY / PRE-TREATMENT

- Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- If in doubt, apply a test area first.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.
- The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.
- High spots must be removed by e.g. 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

- Premix parts A and B separately, make sure all pigment is uniformly distributed.
- Start mixer; stir for 20 seconds part A, then add part B and mix for 30 seconds. Add part C (powder) and part D (color part) together, pouring slowly over a period of 15 seconds.
- Allow part C and D to further mix for 2 more minutes to ensure complete mixing. 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+D) to ensure complete mixing. Mix full units only.

### APPLICATION

- Primer: Mix and pour the Sikafloor®-24 PurCem CN materials on the floor. Spread to the desired thickness using a notched squeegee or screed bar.

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August 2022, Version 01.02  
020814020020000060

- Seal coat: Mix and pour the Sikafloor®-24 PurCem CN materials on the floor. Spread to the desired thickness using a notched squeegee, trowel or screed bar. Take care to spread newly mixed materials across the transition of previous applied mixes before the surface begins to set. Immediately spike roll the surface to release trapped air in the matrix.

### CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C or Sika® Remover-208 immediately after use. Hardened / cured material can only be mechanically removed.

## MAINTENANCE

### CLEANING

Sikafloor® PurCem (CN) floors are easily cleaned using a stiff brushing action and or high-pressure water, preferably hot, and even live steam. Degreasing agents and detergents will assist, but do not use any compounds containing Phenol as the floor colour may be damaged. Consult the cleaning compound manufacturer's printing directions before use.

## 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.

Sikafloor-24PurCemCN-en-HK-(08-2022)-1-2.pdf

