

PRODUCT DATA SHEET

Sikafloor[®]-20 PurCem[®] CN

High Strength Coloured Polyurethane Floor Screed

DESCRIPTION

Sikafloor[®]-20 PurCem[®] CN is a resin rich, easy to trowel, heavy duty, solid colour, four-components, water dispersed polyurethane-based / cement and aggregate screed designed to provide excellent resistance to abrasion, impact, chemical attack and other physical aggression. Sikafloor[®]-20 PurCem[®] CN has a textured aggregate surface providing medium to heavy profile slip resistance. Typically installed at 6 to 9 mm thickness.

USES

Sikafloor[®]-20 PurCem[®] CN may only be used by experienced professionals.

- Sikafloor[®]-20 PurCem[®] CN floors are primarily used to protect concrete substrates, but are equally effective over most steel surfaces that have been properly prepared and supported.
- Typically used in food processing plants, wet & dry process areas, freezers & coolers, thermal shock areas, dairies, breweries, wineries, distilleries, laboratories, chemical process plants, pulp and paper plants, warehouses and storage areas.

CHARACTERISTICS / ADVANTAGES

- Easy installation requiring less labour to install than traditional Sikafloor[®] PurCem (CN) trowel grade materials.
- 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 -40°C up to 120°C.
- Steam cleanable at 9 mm thickness.
- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- Non-taint, odourless.
- Behaves plastically under impact / deforms but will not crack or debond.
- Natural textured surface through the entire life of the product.
- Extra Expansion joints are not necessary; simply maintain and extend existing expansion joints up through the Sikafloor[®] PurCem (CN) Flooring System.

APPROVALS / STANDARDS

- JC/T 2327-2015

PRODUCT INFORMATION

Chemical Base	Waterborne polyurethane composite mortar	
Packaging	Pigment version	Colorant version
	Part A: 5 kg/pail	Part A: 5 kg/pail
	Part B: 4.6 kg/pail	Part B: 4.6 kg/pail
	Part C: 2 × 19.4 kg/bag	Part C: 2 × 20 kg/bag
	Part D: 1.6 kg/bag	Part D: 0.5 kg/bag
	Part A+B+C+D: 50 kg	Part A+B+C+D: 50.1 kg

Shelf Life	Part A & B	12 months
	Part C & D	6 months
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +25 °C. Always refer to packaging.	
Appearance / Colour	Eight standard colours are available (all are approximate): Beige, Maize Yellow, Oxide Red, Grass Green, Slate Grey, Dusty Grey, Traffic Grey, Sky-blue. Note: Sky blue only available in colorant version Custom colors subject to minimum orders.	
Density	Mixing Units	~ 2.10 kg/L
Volatile Organic Compound (VOC) Content	< 30 g/L	JC/T 2327-2015

TECHNICAL INFORMATION

Shore D Hardness	~80	JC/T 2327-2015
Abrasion Resistance	< 0.15 g	JC/T 2327-2015
Resistance to Impact	Heavy duty (1000g)	JC/T 2327-2015
Compressive Strength	24 hours	~22 MPa
	7 days	~38 MPa
	28 days	~41 MPa
Tensile Strength in Flexure	~9.5 MPa	JC/T 2327-2015
Tensile Adhesion Strength	≥ 2.0 MPa (failure in concrete)	JC/T 2327-2015
Skid / Slip Resistance	> 0.6 (dry friction coefficient)	JC/T 2327-2015
Service Temperature	-40°C min. / 120°C max.	
Chemical Resistance	Resistant to many chemicals. Please ask for a detailed chemical resistance table.	

SYSTEM INFORMATION

Systems	Primer	Sikafloor®-10/-24N PurCem (CN)
	Topcoat	Sikafloor®-20 Purcem (CN)

APPLICATION INFORMATION

Mixing Ratio	Parts A : B : C : D = Mix full units only.		
Consumption	Coating System	Product	Consumption
	Primer	Sikafloor®-10 PurCem® CN or Sikafloor®-24N Purcem (CN)	The consumption of three products as primer is : ~1.5-2.0 kg/m ²
	Topcoat	Sikafloor®-20 PurCem® CN	~12.5 kg/m ²
	These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.		
Ambient Air Temperature	+10 °C min./+30°C max. Optimal application temperatures range : 15°C - 25°C		
Relative Air Humidity	80% r.h. max.		

Dew Point	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.		
Substrate Temperature	+10°C min. / +30°C max.		
Substrate Moisture Content	≤ 4 % parts by weight. Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).		
Pot Life	Temperature	Time	
	+20 °C	~25 minutes	
Curing Time	Temperature	Foot traffic	Light traffic
	+20°C	10~12 hours	14~16 hours
Full cure 5 days			
Note:At low temperature the curing need longer time.			
Waiting Time / Overcoating	Before applying Sikafloor®-20 PurCem® CN on Sikafloor®-10 Purcem (CN) or Sikafloor®-24N 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
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.

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® PurCem 29N (VP).
- Colour uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor® 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®-20 PurCem® CN must be thoroughly mixed using a low speed electric stirrer (300 -400rpm) or other suitable equipment.

SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
- 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 a profiled open textured surface.
- Whenever "shot-blasting" is utilized, be careful to leave concrete with a uniform texture. "Overblasting" will result in reduced coverage rates of the primer and/or subsequent topcoats. The "shotblast" pattern may show through the last coat, known as "tracking".
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to substrate, filling of blowholes/voids and

surface levelling can 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 up 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

- Mixing will be affected by temperature; condition materials for use from 18°C to 25°C.
- Stir part A first for approx. 15 seconds. Add part B, and mix for approx. 30 seconds with low speed mixer.
- While mixing, add simultaneously but slowly (DON'T DUMP!) the 2 bags of part C (powder) and the bag of part D (pigment pack) within 15 seconds.
- Further mix for 2 minutes until the mixture is homogeneous and the pigment is uniformly dispersed. Mix full units only.

APPLICATION

- **Primer:** Use Sikafloor®-10/-24N PurCem (CN) for the primer. Please refer to individual primer Product Data Sheet.
- **Topcoat:** After waiting the appropriate overcoating time / curing, pour the mixed Sikafloor®-20 PurCem® CN onto the primer and spread evenly using a squeegee at the required consumption. Then using a short-piled roller, back roller in two directions at right angles to each other. A seamless finish can be achieved if a 'wet' edge is maintained during application.
- **Application on Slopes > 2%:** To minimize movement and improve the application characteristics on slopes greater than 2%, add an additional 10% by weight [3.9 kg] of Sikafloor®-20 PurCem® CN part C powder to each 50kg unit mix.

CLEANING OF TOOLS

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

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.

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