BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-377

Polyurethane Crack-bridging Self-smoothing textured Flooring Resin for waterproofing park decks

DESCRIPTION

Sikafloor®-377 is a 2-part polyurethane, crack-bridging, low viscosity, low moisture sensitive flooring resin. It provides a hard wearing, seamless, low maintenance, slip resistant finish when broadcast with different aggregate grades. Varying thickness's can be achieved from 2,0–5,0 mm. For medium - heavy wear conditions. Internal and external use.

USES

Sikafloor®-377 may only be used by experienced professionals.

- Car Park Deck waterproofing - Wear layer for PB-32 UV and PB-55 UV systems
- Crack bridging, trafficable, wearing layer
- Slip resistant broadcast system

CHARACTERISTICS / ADVANTAGES

- Seamless
- Good crack bridging ability
- Good mechanical resistance
- Low moisture sensitive (no foaming or blistering)
- Waterproof
- Matt finish
- Filled with sand to produce an economical self-smoothing resin
- Low maintenance
- Slip resistant surface to suit clients requirements
- Different colour finishes available using a seal coat
- Easy application
- Low VOC emissions

SUSTAINABILITY

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings
- IBU Environmental Product Declaration (EPD) available

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating
- Coating system DAfStb Test Class OS 11, Sikafloor® MultiFlex PB-55, kiwa, Test report No. P 10777-1

PRODUCT INFORMATION

Product declaration	EN 1504-2: Surface protection product for concrete - Coating.
Composition	Polyurethane

Packaging	Part A	20,25 kg container
	Part B	4,75 kg container
	Part A+B	25 kg ready to mix unit
	Refer to current price list for packaging variations.	
Shelf life	12 months from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.	
Appearance and colour	Smooth, matt finish	
	Resin – Part A	Coloured liquid
	Hardener – Part B	Clear liquid
	Standard Colour	Beige
Density	Filled resin ~ 1,38 kg/l Density value at +23 °C.	(DIN 53217)
Solid content by mass	~100 %	
Solid content by volume	~100 %	

TECHNICAL INFORMATION

Tensile strength	≥ 11,0 N/mm² (14 days / +23°C / 50% r.h.)	(DIN 53 504)
Tensile strain at break	90% elongation at break	
Crack bridging ability	II T+V	
Temperature resistance	Short term dry heat + 80°C	

SYSTEM INFORMATION

Systems	Refer to the following System Data Sheets: ▪ Sikafloor MulitFlex PB-32 UV ▪ Sikafloor® MultiFlex PB-55 UV

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 81 : 19 (by weight)
Consumption	~1,4 kg/m²/mm. Refer to the respective System Data Sheet. This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.
Ambient air temperature	+10 °C min. / +30 °C max.
Relative air humidity	80 % max.
Dew point	Beware of condensation The substrate and uncured applied floor material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the floor finish. Low temperatures and high humidity conditions increase the probability of blooming.
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
+10 °C	~40 minutes
+20 °C	~30 minutes
+30 °C	~20 minutes

Curing time

Before applying Sikafloor®-377 on Sikafloor®-160/161 allow:

Substrate temperature	Minimum	Maximum
+10 °C	1 day	3 days
+20 °C	12 hours	2 days
+30 °C	6 hours	1 day

Note: If the waiting time between primer and coating is exceeded, reduced adhesion may occur.
Before applying Sikafloor®-377 on Sikafloor®-376 allow:

Substrate temperature	Minimum	Maximum
+10 °C	1 day	2 days
+20 °C	15 hours	1 day
+30 °C	8 hours	16 hours

Before applying top coat on Sikafloor®-377 allow:

Substrate temperature	Minimum	Maximum
+10 °C	1 day	*
+20 °C	12 hours	*
+30 °C	5 hours	*

* No maximum waiting time with broadcast surfaces.
Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied product ready for use

Temperature	Foot traffic	Light traffic	Full cure
+10 °C	1 day	3 days	9 days
+20 °C	12 hours	2 days	5 days
+30 °C	8 hours	1 day	3 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.

FURTHER INFORMATION

- Sika Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika Method Statement: Mixing & Application of Flooring Systems
- System Data Sheet: Sikafloor® MultiFlex PB-32 UV
- System Data Sheet: Sikafloor® MultiFlex PB-55 UV

IMPORTANT CONSIDERATIONS

- A top / seal coat must be used on top of Sikafloor®-377.
- After application, Sikafloor®-377 must be protected from damp, condensation and direct water contact (rain) for at least 24 hours.
- Construction joints and existing static surface cracks in substrate require pre-treating with a stripe coat by prefilling and levelling to seal against loss of material through the joint or cracks before full layer application. Use Sikadur® or Sikafloor® resins.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective surface cracking.
- If heating is required, do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Seal / Top coat consumption will vary depending on sand granulometry.
- Discard any material over the pot life recommendations.
- Do not apply on substrates with rising moisture.
- Do not apply to porous surfaces where significant moisture vapour transmission (out-gassing) will occur during application.
- Uneven application of the coating, resulting in variable coating layer thicknesses, may cause ‘gloss’ differences in the surface finish.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the latest Safety Data Sheet (SDS) containing physical, ecological, toxicological, and other safety related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project:

Substrate preparation

- Abrasive blasting cleaning system
- Planing machine
- Scarifying machine
- High pressure water blasting system
- Other suitable equipment

Mixing

- Electric single paddle mixer (300–400 rpm)
- Forced action / rotating pan / double paddle or trough type mixer (300–400 rpm)
- Scraper
- Clean mixing containers

Application

- Mixed material carrier
- Pin leveller
- Trowels
- Spiked roller
- Squeegee
- Fleece rollers

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete and cementitious screeds

Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1,5 N/mm².

Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

Cementitious substrates must be prepared mechanically using suitable abrasive blast cleaning or planing / scarifying equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness.

High spots can be removed by grinding.

Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed.

Repairs to the substrate, filling of cracks, blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before applying Sikafloor®-377.

All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.

MIXING

Prior to mixing all parts, mix separately Part A (resin) using an electric single paddle mixer or other suitable equipment, mix liquid and all the coloured pigment until a uniform colour / mix has been achieved. Add Part B (hardener) to Part A and mix Part A + B continuously for 3,0 minutes until a uniformly coloured mix has been achieved. When Parts A and B have been mixed. Using a forced action / rotating pan / double paddle / trough type or other suitable equipment (free fall mixers must not be used). Gradually add the appropriate granulometry of dried quartz sand and if required Extender T. Mix for a further 2,0 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a smooth consistent mix. Excessive mixing must be avoided to minimise air entrainment. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing. Mix full units only. Mixing time for A+B+quartz sand = 5,0 minutes.

APPLICATION

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures. If moisture content > 4% parts by weight, Sikafloor® EpoCem® may be applied as a Temporary Moisture Barrier (T.M.B.) system.

Primer

Pour mixed Sikafloor® primer onto the prepared substrate and apply by brush, roller or squeegee then back roller in two directions at right angles to each other. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Confirm waiting /overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet.

Slip resistant broadcast layer

Pour mixed Sikafloor®-377 onto prepared substrate and spread evenly using a suitable trowel or pin leveller to the required thickness.

Spike roller immediately in two directions at right angles to each other to aid air release and ensure an even thickness. After the appropriate waiting time, broadcast with quartz sand, at first lightly and then to excess to produce an even distribution surface profile. Allow Sikafloor®-377 to initially cure and remove all loose sand by vacuum extraction equipment.

Seal / top coat

After waiting the appropriate overcoating time, pour the mixed material onto the slip resistant broadcast layer and spread evenly using a squeegee at the required consumption rate to completely encapsulate the sand. 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.

Please refer to the relevant Sika System Data Sheet to

determine priming and sealcoat options.

CLEANING OF EQUIPMENT

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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