

PRODUCT DATA SHEET

Sikafloor®-1230

(formerly MTop 1230)

SELF-SMOOTHING, TOTAL SOLIDS, EPOXY RESIN FOR FLOORING APPLICATION

DESCRIPTION

Sikafloor®-1230 is a multi-component, self-smoothing, total solids, epoxy overlay system designed to provide continuous protection for concrete floors at thicknesses between 2.0 - 3.0 mm. The cured material produces a dense, colourful, glossy surface. Suitable for use in hot and tropical climatic conditions.

USES

Sikafloor®-1230 has excellent wear and abrasion resistance to floors subjected to high volume traffic. The smooth, ultra-dense and high gloss finish is ideal for situations requiring a hygienic, easily cleaned surface.

Sikafloor®-1230 may be applied in the following industries:

- Food production and processing
- Beverage production - including soft drink manufacturing
- Pharmaceutical areas, laboratories, clean rooms
- Engineering workshops and assembly lines
- Showrooms, demonstration areas
- Industrial and commercial cold kitchens
- Retail
- Schools, hospitals and hotels

CHARACTERISTICS / ADVANTAGES

- Easy application
- Smooth high gloss finish for hygienic applications
- Easily cleanable
- Good chemical and mechanical resistance

PRODUCT INFORMATION

Chemical base	Epoxy resin, selected fillers and pigments	
Packaging	Part A+B+Filler+Pigment	22.70kg
	Part A	5.0kg
	Part B	3.25kg
	Filler	14.0kg
	Colour pack	0.45kg
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.	
Colour	Available in various colour shades, please request Sika sales representative for colour chart. Under direct sun light there may be some discolouration and colour variation; this has no influence on the function and performance of the coating.	
Density	~1.70 kg/l (mixed, at 25°C)	

Solid content by weight ~100 %

TECHNICAL INFORMATION

Shore D hardness	75-80	(ASTM D 2240)
Abrasion resistance	~50 mg (CS17 Wheel / 1000 cycles / 1000 g weight)	(ASTM D4060)
Resistance to impact	Passes	(EN ISO 6272-1: 2011)
Compressive strength	≥ 50 N/mm ² (7 days)	(EN ISO 604)
Flexural strength	≥ 15 N/mm ²	(EN ISO 178)
Tensile strength	≥ 7 N/mm ²	(EN ISO 527)
Tensile adhesion strength	> 1.5 MPa (concrete failure)	(ASTM D4541)

SYSTEM INFORMATION

System structure	2.0-3.0 mm self-smoothing topping:	
	Primer	Sikafloor®-167 Primer / Sikafloor®-161 HC
	Wearing course	Sikafloor®-1230

APPLICATION INFORMATION

Consumption	2.0 mm self-smoothing topping:		
	Layer	Product	Consumption
	Primer	Sikafloor®-167 Primer / Sikafloor®-161 HC	~0.2–0.35 kg/m ²
	Topping	Sikafloor®-1230	~3.4 kg/m ²
	3.0 mm self-smoothing topping:		
	Layer	Product	Consumption
Primer	Sikafloor®-167 Primer / Sikafloor®-161 HC	~0.2–0.35 kg/m ²	
Topping	Sikafloor®-1230	~5.1 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

Layer thickness	Min. 2 mm Max. 3 mm
Ambient air temperature	+10°C min. / +30°C max.
Relative air humidity	80 % r.h. max.
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 blooming on the floor finish. Note: Low temperatures and high humidity conditions increase the probability of blooming.
Substrate temperature	+10°C min. / +30°C max.
Substrate moisture content	< 4 % pbw moisture content. Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).
Pot life	~45 min (at 25°C)

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.
- Internal Reference - Version: MBS_CC-UAE/Top_1230_08_00/v4/04_17/v5/09_19/v6/08_22

FURTHER DOCUMENTS

- Sika Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika Method Statement: Mixing & Application of Flooring Systems
- Sika Method Statement: Sikafloor®-Cleaning Regime

IMPORTANT CONSIDERATIONS

- Do not apply Sikafloor®-1230 on substrates with rising moisture.
- In case of rising substrate moisture, use EpoCem® technology range of products. Contact Sika Technical Department for recommendation.
- Freshly applied Sikafloor®-1230 must be protected from damp, condensation and water for at least 24 hours.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Sikafloor®-1230 in each area is applied from the same control batch numbers.
- Do not expose the Product to chemical or mechanical strain at elevated temperatures.
- Expansion joints in the existing substrate floor must continue (be mirrored) through the Sikafloor®-1230 coating.
- Damaged or deeply pitted areas can be repaired and levelled using Sikafloor®-1230 filled with additional aggregate.
- It is essential to prime / seal the concrete surface prior to the application of Sikafloor®-1230, to prevent air from the substrate rising through the Sikafloor®-1230 while it sets. .
- Do not blind the primer.
- Do not apply Sikafloor®-1230 to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor®-1230 after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Beware of air flow and changes in air flow. This may lead to introduction of dust, debris, and particles, etc. resulting in surface imperfections and other defects.
- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist.

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

SUBSTRATE PREPARATION

- 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.
- Concrete substrates must be prepared mechanically using light grit blasting, captive blasting or surface grinding to achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface irregularities must be carried out using appropriate products from the Sikafloor®, Sikadur® and SikaEmaco® range of materials.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.
- The preferred method for surface preparation of concrete is captive blasting, which gives a well prepared laitance free, vacuum cleaned surface.

MIXING

Note: Prior to mixing and application, Sikafloor®-1230 should be stored under cover in an air-conditioned environment and protected from extremes of temperature which may cause inconsistent workability, finish and cure times for the mixed material.

- Prior to mixing all parts, mix separately Part A (resin) using a low speed single paddle electric stirrer (300–400 rpm).
- Pre-mix Part A & colour component prior to next mixing steps.
- Add Part B (hardener) to Part A and mix part A + B continuously for 2.0 minutes until a uniform mix has been achieved. When Parts A and B have been mixed, using an electric double paddle mixer (> 700 W) or other similar equipment (free fall mixers must not be used) gradually add the required quantity of quartz filler which comes along with the KIT.
- Mix for a further 1.0 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+Colour+Quartz Filler = ~4.0 minutes.

Note: Always keep the mixing time the same for all batches, to ensure a uniform colour when the product is applied.

APPLICATION

Prior to application, confirm substrate moisture content, relative air humidity and dew point. If > 4 % pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.

Primer:

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply primer by brush, roller or squeegee. Preferred application is by using a squeegee and then back-rolling crosswise. Confirm waiting /overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet

Smooth wearing course:

Mixed Sikafloor®-1230 is poured and spreaded evenly by means of a serrated trowel or pin rake. After spreading the material evenly, turn the serrated trowel and smooth the surface in order to achieve an aesthetically higher grade of finish. Roll immediately (before material begins to gel) in two directions with a spiked roller to ensure even thickness. A seamless finish can be achieved if a 'wet' edge is maintained during application.

CLEANING OF TOOLS

Clean all tools and application equipment with suitable thinner (Xylene / MEK / Acetone), immediately after use. Hardened and/or cured material can only be removed mechanically.

MAINTENANCE

To maintain the appearance of the floor after application, Sikafloor®-1230 must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques, etc. using suitable cleaning agent only.

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 exact product data and uses.

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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September 2024, Version 02.02
02081100000002087

Sikafloor-1230-en-IN-(09-2024)-2-2.pdf