

## 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 - 4.0 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

<b>Chemical Base</b>	Epoxy resin, selected fillers and pigments
<b>Packaging</b>	Supplied as a 46 kg multi component pack (including colour pack)
<b>Shelf Life</b>	12 months from date of production
<b>Storage Conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.
<b>Colour</b>	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.
<b>Density</b>	~1.79 kg/l (mixed, at 25°C)
<b>Solid content by weight</b>	~100 % Note: Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)

## TECHNICAL INFORMATION

<b>Abrasion Resistance</b>	~50 mg (CS17 Wheel / 1000 cycles / 1000 g weight)	(ASTM D4060)
<b>Resistance to Impact</b>	Passes (2 meters with 1.5 kg)	(EN ISO 6272-1: 2011)
<b>Compressive Strength</b>	≥ 85 N/mm <sup>2</sup> (7 days)	(ASTM C579-93)
<b>Tensile Strength in Flexure</b>	≥ 35 N/mm <sup>2</sup>	(BS 6319 Part 3 / ASTM C580)
<b>Tensile Strength</b>	≥ 20 N/mm <sup>2</sup>	(BS 6319 Part 7 / ASTM C307)
<b>Water Absorption</b>	≤ 0.05%	(ASTM C413)

## APPLICATION INFORMATION

<b>Consumption</b>	As a general guide: ~1.8 kg/m <sup>2</sup> /mm applied as a self-smoothing wearing course. For additional and more detailed information please refer to General Method Statement. Always prime the surface before application of self-smoothing layer. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc. A 46 kg unit of Sikafloor®-1230 will yield ~25.7 L of mixed material. Sikafloor®-1230 components are supplied in preweighed packs which should not be split or divided. Always mix a full kit.		
<b>Layer Thickness</b>	Min. 2 mm Max. 4 mm		
<b>Ambient Air Temperature</b>	+10°C min. / +30°C max.		
<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 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.		
<b>Substrate Temperature</b>	+10°C min. / +30°C max.		
<b>Substrate Moisture Content</b>	< 4 % pbw moisture content. Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).		
<b>Pot Life</b>	~35 min (at 25°C)		
<b>Applied Product Ready for Use</b>	<b>Temperature</b> +25°C	<b>Foot traffic</b> ~24 hours	<b>Full cure</b> ~7 days

## 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

- **General Method Statement**
- **Substrate quality & Preparation:** Please refer to Sika Method Statement: "EVALUATION AND PREPARATION OF SURFACES FOR FLOORING SYSTEMS".
- **Application instructions:** Please refer to Sika Method Statement: "MIXING & APPLICATION OF FLOORING SYSTEMS".
- When required, Sikafloor®-1205 can be overcoated with UV resistant top coat: Sikafloor® TC 257 (smooth and slip-resistant finish) and/or Sikafloor® TC 943 (scratch resistance top coat). Refer to the related Product Data Sheet for further details.

## LIMITATIONS

- 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.
- Prime / seal the concrete with Sikafloor®-1200 diluted with 0.5 L a suitable thinner (Xylene / MEK / Acetone) if required or permissible. Pour the base (PTA) and reactor (PTB) components into a suitable mixing vessel and add the thinner (Xylene / MEK / Acetone). Using a slow speed drill and paddle, mix the components for a minimum of 1 minute, or until all striations have disappeared. For more details, refer to Product Data Sheet of primer and Method Statement.
- Sikafloor®-1230 can be applied to glazed and terrazzo tiles, steel and timber. For applications other than to concrete, please contact your Sika® representative.
- Sikafloor®-1230 offers good general resistance to a broad spectrum of chemical corrosives, but as in all cases of chemical exposure a full analysis of operating conditions is required, followed by reference to chemical resistance data, to ensure product suitability.

## 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.

## APPLICATION INSTRUCTIONS

### EQUIPMENT

- Vacuum recovery shot blasting machine
- Masking tape / polythene sheets
- Heaters for cold weather work
- Trowels
- Slow speed drill with suitable paddle
- Brushes or short nap hair rollers
- Industrial vacuum
- Scarifier (Errut / Von Arx)
- Grinder
- Overalls
- Lighting
- Spiked roller
- Spiked shoes
- Pin screed

### SUBSTRATE PREPARATION

The concrete substrate 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.

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.

Pour the contents of the colour pack into the base (Part A) and then mix the components together using a slow speed (300 – 600 rpm) hand held mixer fitted with a suitable mixing paddle; Collomix DLX mixing head or similar. Mix for no less than 1 minute, before pouring this into a clean large size mixing bucket (min. 30 L) and then adding the Sikafloor®-1230 filler (Part C) whilst continuing to mix until a uniform colour is obtained, free of streaks or lumps of unmixed filler (minimum 2 minutes). Remix the pre-mixed base (Part A) + colour pack + filler (Part C) for 30 seconds and then add the reactor (Part B) and continue to mix until a streak free even colour is reached and there are no visible lumps of filler (Part C), etc. 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.

### 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.

## 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 detergents and waxes.

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### Product Data Sheet

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## 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.

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