

# PRODUCT DATA SHEET

## Sikafloor®-271 T

### 2-PART EPOXY COVERING FOR SMOOTH AND BROADCASTED FLOORING SURFACES

#### DESCRIPTION

Sikafloor®-271 T is a two part, multipurpose binder based on epoxy resin.

#### USES

Sikafloor®-271 T may only be used by experienced professionals.

- Self-smoothing and broadcast systems for concrete and cement screeds with normal up to medium heavy wear e.g. storage and assembly halls, maintenance workshops, garages, loading ramps etc.
- The broadcast system is recommended for multistorey and underground car parks, maintenance hangars and for wet process areas, e.g. beverage and food industry.

#### CHARACTERISTICS / ADVANTAGES

- Good chemical and mechanical resistance
- Easy application
- Gloss finish
- Slip resistant surface possible

#### APPROVALS / STANDARDS

- CNS 4938

#### PRODUCT INFORMATION

<b>Packaging</b>	Comp. A: 20 kg Comp. B: 4 kg
<b>Appearance / Colour</b>	Resin – Comp. A: coloured, liquid Hardener – Comp. B: transparent, liquid Extended colour range RAL 1001, 6021, 7030, 7032, 7035, 7037, 7038, 7040, 7042, 9002 Other colours on request. 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>Shelf Life</b>	6 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 +35 °C.
<b>Density</b>	~ 1.4 kg/ltr
<b>Solid Content</b>	99 %

## TECHNICAL INFORMATION

Shore D Hardness	80 (7 days / +23 °C)	(CNS 12628)
Abrasion Resistance	< 80 mg (CS 17/1000/1000) (8 days / +23 °C)	(CNS 10757)
Compressive Strength	> 800 kg/cm <sup>2</sup> (28 days / +23 °C)	(CNS 10141)
Tensile Strength in Flexure	> 500 kg/cm <sup>2</sup> (28 days / +23 °C)	(CNS 10141)

## SYSTEM INFORMATION

Systems	<b>Self-smoothing system :</b> Primer: 1–2 x Sikafloor®-168 T Wearing course: 1 x Sikafloor®-271 T + quartz sand (0.1–0.3 mm)
	<b>Broadcast system :</b> Primer*: 1–2 x Sikafloor®-168 T Base coat: 1 x Sikafloor®-268 T + quartz sand Broadcasting: quartz sand (0.4–0.7 mm) Seal coat: 1 x Sikafloor®-271 T

## APPLICATION INFORMATION

Mixing Ratio	Comp. A : Comp. B = 5 : 1 (by weight)			
Consumption	~1.4 kg/m <sup>2</sup> /mm applied as a self-smoothing wearing course These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.			
Ambient Air Temperature	+10 °C min. / +35 °C max.			
Relative Air Humidity	80 % r.h. max			
Dew Point	<b>Beware of condensation!</b> 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.			
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	Temperature	Time		
	+10 °C	~ 30 minutes		
	+20 °C	~ 20 minutes		
	+30 °C	~ 10 minutes		
Curing Time	Sikafloor®-271 T	+10 °C	+20 °C	+30 °C
	Ready for foot traffic	3 days	1 day	1 day
	Light mechanical exposure	6 days	4 days	2 days
	Fully serviceable	10 days	7 days	5 days
Waiting Time / Overcoating	Sikafloor®-168 T	+10 °C	+20 °C	+30 °C
	min.	18 hours	12 hours	6 hours
	max.	3 days	2 days	1 day

# APPLICATION INSTRUCTIONS

## SUBSTRATE QUALITY / PRE-TREATMENT

- 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 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 can be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.
- 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

- Prior to mixing, stir Comp. A mechanically. When all of Comp. B has been added to Comp. A, mix continuously for 2 minutes until a uniform mix has been achieved.
- When Comp. A and B have been mixed, add the quartz sand 0.08–0.25 mm and/or Sikafloor® Filler-1 and mix for a further 2 minutes until a uniform mix has been achieved.
- To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix.
- Over mixing must be avoided to minimize air entrainment.
- Sikafloor®-271 T must be thoroughly mixed using a low speed electric stirrer (300–400 rpm) or other suitable equipment.

## APPLICATION

- Prior to application, confirm substrate moisture content, r.h. 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 Sikafloor®-168 T by brush, roller or squeegee.
- Preferred application is by using a squeegee and then backrolling crosswise.

## Levelling:

- Rough surfaces need to be levelled first. Therefore use e.g. Sikafloor®-265 T/268 T levelling mortar (see PDS).

## Wearing course smooth:

- Sikafloor®-271 T is poured, spread evenly by means of a serrated trowel.
- 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 in two directions with a spiked roller to ensure even thickness.

## Broadcast system:

- Sikafloor®-271 T is poured, spread evenly by means of a serrated trowel.
- Then, level and remove any entrapped air with a spiked roller and after about 15 minutes (at +20 °C) but before 30 minutes (at +20 °C), broadcast with quartz sand, at first lightly and then to excess.

## CLEANING OF TOOLS

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

## FURTHER DOCUMENTS

- Do not apply Sikafloor®-271 T on substrates with rising moisture.
- Freshly applied Sikafloor®-271 T should be protected from damp, condensation and water for at least 24 hours.
- For roller / textured coatings: Uneven substrates as well as inclusions of dirt cannot and should not be covered by thin sealer coats. Therefore both substrate and adjacent areas must always be prepared and cleaned thoroughly prior to application.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Sikafloor®-271 T in each area is applied from the same control batch numbers.
- Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading, may lead to imprints in the resin.

## 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.

## 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.

## ECOLOGY

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.

## 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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