Construction

Sikafloor®-261

2-Part Epoxy Self-smoothing, Broadcast and Textured Coating, Mortar Screed and Seal Coat

Product Description

Sikafloor®-261 is a two part multi purpose binder based on epoxy resin. Due to it's low viscosity, highly filled self-smoothing and broadcast systems as well as textured coatings, mortar screeds and seal coats can be produced. Suitable for use in hot and tropical climates.

Uses

- For the production of screeds, coatings and layers on concrete and cement screeds with normal up to medium heavy wear e.g. storage and assembly halls, maintenance workshops, garages and loading ramps etc.
- The broadcast system is recommended for wet process areas, e.g. in beverage industry, food industry and maintenance hangars etc.

Characteristics / Advantages

- Highly fillable
- Good chemical and mechanical resistance
- Easy application
- Economical
- Liquid proof
- Solvent-free
- Tight, glossy surface
- Slip resistant surface possible

Test

Approval / Standards

Conforms to the requirements of DIN 51130 (Skid / slip resistance).
Conforms to the requirements regarding physiological harmlessness according 47th notification of the Federal Health Office, (P 1404-5a).
Conforms to the requirements regarding decontamination ability (BS 4247, IRAS Ltd., St. Helens, UK as well as per DIN 25 415-1 Test report 4098/12, Forschungszentrum D-Jülich).

Product Data

Form

Appearance / Colours

Resin - part A:	coloured, liquid
Hardener - part B:	transparent, liquid

Almost unlimited choice of colour shades.
In case of bright colour shades, e.g. yellow or orange, colour deviations may occur due to backfilling with quartz sand. Under direct sun radiation there may be some discolouration and colour deviation; this has no influence to the function and performance of the coating.

Packaging	Part A:	15.4 kg and 7.7 kg containers	
	Part B:	4.6 kg and 2.3 kg containers	
	Part A+B:	20 kg and 10 kg ready to mix units (10 kg as unipacs)	
	Bulk packaging:		
	Part A:	200 kg drums	
	Part B:	60 kg and 180 kg drums	

Storage

Storage Conditions / Shelf-Life	24 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.

Technical Data

Chemical Base	Epoxy		
Density (at +23°C)	Part A:	~ 1.53 kg/lt	
	Part B:	~ 1.10 kg/lt	(DIN EN ISO 2811-1)
	Mixed resin:	~ 1.4 kg/lt	
	Filled resin 1 : 1:	~ 1.8 kg/lt	
Solid Content	~ 100% (by volume) / ~ 100% (by weight)		

Mechanical / Physical Properties

Compressive Strength	Resin: ~ 60 N/mm²	(28 days / +23°C)	(EN 196-1)
Flexural Strength	Resin: ~ 30 N/mm²	(28 days / +23°C)	(EN 196-1)
Bond Strength	> 1.5 N/mm²	(failure in concrete)	(ISO 4624)
Shore D Hardness	76	(7 days / +23°C)	(DIN 53 505)
Abrasion Resistance	70 mg (CS 10/1000/1000)	(8 days / +23°C)	(DIN 53 109 (Taber Abrader Test))

Resistance

Chemical Resistance	Resistant against many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C
Short-term max. 7 days	+80°C
Short-term max. 12 hrs	+100°C

Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning etc.)
*No simultaneous chemical and mechanical exposure.

System Information

System Structure

Roller coating:
Primer: 1 x Sikafloor®-156
Coating: 2 x **Sikafloor®-261**
Note: In cases of limited exposure and normal absorbent concrete substrates priming with Sikafloor®-156 is not necessary.

Textured coating:
Primer: 1 x Sikafloor®-156
1st layer: 1 x **Sikafloor®-261**
2nd layer: 1 x **Sikafloor®-261** mixed with Extender T
Note: In cases of limited exposure and normal absorbent concrete substrates priming with Sikafloor®-156 is not necessary.

Self-smoothing system 1.0 mm:
Primer: 1 x Sikafloor®-156
Wearing course: 1 x **Sikafloor®-261** + Sikafloor® Filler 1

Self-smoothing system 1.5 - 3.0 mm:
Primer: 1 x Sikafloor®-156
Wearing course: 1 x **Sikafloor®-261** + quartz sand (F36 (0.08 - 0.25 mm))

Self-smoothing system 1.5 - 3.0 mm for highest aesthetic demands:
Primer: 1 x Sikafloor®-156
Wearing course: 1 x **Sikafloor®-261** + quartz sand (F 36 (0.08 - 0.25 mm))
+ Sikafloor® Filler 1

Broadcast system approx. 4 mm:
Primer*: 1 x Sikafloor®-156
Base coat: 1 x **Sikafloor®-261** + quartz sand (F36 (0.08 - 0.25 mm))
Broadcasting: quartz sand (0.4 - 0.7 mm) broadcast to excess
Seal coat: 1 x **Sikafloor®-261**

Mortar screed approx. 8 mm layer thickness:
Primer: 1 x Sikafloor®-156
Bonding bridge: 1 x Sikafloor®-156 + Extender T + fine quartz flour
Screed: 1 x **Sikafloor®-261** + suitable sand mixture

In practice the following sand mixture proved to be suitable (granulometry for a layer thickness of approximately 8 mm):
33 pbw quartz sand 0.1 - 0.5 mm
33 pbw quartz sand 0.4 - 0.7 mm
33 pbw quartz sand 1.0 - 2.0 mm
The largest grain size should be maximum 1/3 of layer thickness. Dependent on grain shape and application temperatures the aggregates and the mix should be selected.

Lamination (1.5 - 2.0 mm):
Primer: 1 x Sikafloor®-156
1st lamination layer: 1 x **Sikafloor®-261** + glass fiber fabric
2nd lamination layer: 1 x **Sikafloor®-261** + glass fiber fabric
Seal coat: 1 x **Sikafloor®-261**

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	Sikafloor®-156	0.3 - 0.5 kg/m²
Levelling (optional)	Sikafloor®-156 levelling mortar	Refer to PDS of Sikafloor®-156
Roller coating	2 x **Sikafloor®-261**	0.25 - 0.3 kg/m² for each layer
Textured coating (Film thickness ~ 0.5 mm)	1st layer **Sikafloor®-261** 2nd layer **Sikafloor®-261** + Extender T	0.4 - 0.5 kg/m² 0.5 - 0.7 kg/m² 1.5 - 2% (by weight)
Self-smoothing wearing course (Film thickness ~ 1.0 mm)	1 pbw **Sikafloor®-261** 0.4 pbw Sikafloor® Filler 1	1.6 kg/m² mixture (1.15 kg/m² binder + 0.45 kg/m² Filler 1)
Self-smoothing wearing course (Film thickness ~ 1.5 - 3.0 mm)	1 pbw **Sikafloor®-261** 1 pbw quartz sand (F 36 (0.08 - 0.25 mm))	1.8 kg/m² mixture (0.9 kg/m² binder + 0.9 kg/m² quartz sand) per mm layer thickness
Self-smoothing wearing course for highest aesthetic demands (Film thickness ~ 1.5 - 3.0 mm)	1 pbw **Sikafloor®-261** 0.6 pbw quartz sand (F 36 (0.08-0.25 mm)) 0.2 pbw Sikafloor® Filler 1	1.7 kg/m² mixture (0.94 kg/m² binder + 0.57 kg/m² quartz sand + 0.19 kg/m² Filler 1) per mm layer thickness
Broadcast system (Film thickness ~ 4.0 mm)	1 pbw **Sikafloor®-261** 1.1 pbw quartz sand (F 36 (0.08-0.25 mm)) + broadcasting quartz sand 0.4 -0.7 mm + Seal coat **Sikafloor®-261**	2.00 kg/m² 2.20 kg/m² ~ 6.0 kg/m² ~ 0.7 kg/m²
Mortar screed (Film thickness ~ 8.0 mm)	Bonding bridge: 1 pbw Sikafloor®-156 0.02 pbw Extender T 0.21 pbw fine quartz flour	0.9 kg/m² mixture (mix : 10.00 kg binder + 0.2 kg Extender T + 2.1 kg quartz flour)
	Mortar screed: 1 pbw **Sikafloor®-261** ~ 7 pbw sand mixture: 33 pbw sand 0.1 - 0.5 mm 33 pbw sand 0.4 - 0.7 mm 33 pbw sand 1.0 - 2.0 mm	~ 17 kg/m² mixture (2.0 kg/m² binder + 15.0 kg/m² sand mixture)
Lamination (1.5 - 2.0 mm)	1st layer **Sikafloor®-261** 2nd layer **Sikafloor®-261** Seal coat **Sikafloor®-261** Glass fibre fabric	~ 700 g/m² ~ 600 g/m² ~ 400 g/m² ~ 300 g/m² per layer

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.

Substrate Quality

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.

Substrate Preparation	Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve a profiled open textured surface. 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.

Application Conditions / Limitations

Substrate Temperature	+10°C min. / +30°C max.
AmbientTemperature	+10°C min. / +30°C max.
Substrate Humidity	≤ 4% pbw moisture content. Test method: Sika®-Tramex meter or CM - measurement. No rising moisture according to ASTM (Polyethylene-sheet).
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.

Application Instructions

Mixing	Part A : part B = 77 : 23 (by weight)
Mixing Time	Prior to mixing stir part A mechanically. When all of part B has been added to part A, continuously mix for 2 minutes until a uniform mix has been achieved. When parts A and B have been mixed, the quartz sand 0.08 - 0.25 mm and/or Sikafloor® Filler 1 must be mixed with part A and B 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.
Mixing Tools	**Sikafloor®-261** must be mechanically mixed using an electric power stirrer (300 - 400 rpm) or other suitable equipment.

Application Method / Tools

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.

Levelling:
Rough surfaces need to be levelled first. Therefore use e.g. Sikafloor®-156 levelling mortar (see PDS).
Wearing course smooth:
Sikafloor®-261 is poured, spread evenly by means of a serrated trowel. Roll immediately in two directions with a spiked roller to ensure even thickness and to remove entrapped air.

Wearing course textured:
Sikafloor®-261 is applied with a serrated trowel and then back-rolled (crosswise) with a textured roller.

Broadcast system:
Sikafloor®-261 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.

Coating:
Sikafloor®-261 as coating, can be applied by short-piled roller (crosswise).

Seal coat:
Sealer coats can be applied by squeegee and then back-rolled (crosswise) with a short-piled roller.

Mortar screed:
Apply mortar layer evenly on the still tacky, bonding bridge of Sikafloor®-156, using levelling boards and guide rails as necessary. After a short waiting time compact and smoothen with a trowel or Teflon coated power float (usually 20 - 90 rpm).

Lamination:
The fabrics are embedded in the wet **Sikafloor®-261** using a profiled roller.

Cleaning of Tools

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

Potlife

Temperatures	Time
+10°C	~ 50 minutes
+20°C	~ 25 minutes
+30°C	~ 15 minutes

Waiting Time / Overcoatability

Before applying **Sikafloor®-261** on Sikafloor®-156 allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	3 days
+20°C	12 hours	2 days
+30°C	6 hours	1 day

Before applying **Sikafloor®-261** on **Sikafloor®-261** allow:

Substrate temperature	Minimum	Maximum
+10°C	hours 30	days 3
+20°C	hours 24	days 2
+30°C	hours 16	day 1

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Notes on Application / Limitations

Do not apply **Sikafloor®-261** on substrates in which significant vapour pressure may occur.
Do not blind the primer.
Freshly applied **Sikafloor®-261** must be protected from damp, condensation and water for at least 24 hours.
Avoid puddles on the surface with the primer.
For areas with limited exposure and normally absorbent concrete substrates priming with Sikafloor®-156 is not necessary for broadcast systems.
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.

Tools
Recommended Supplier of Tools:
PPW-Polyplan-Werkzeuge GmbH, Phone: +49 40/5597260,
www.polyplan.com. Serrated trowel for smooth wearing layer:
e.g. Large-Surface Scrapper No. 565, Toothed blades No. 25
Serrated trowel for textured wearing layer:
e.g. Trowel No. 999 or Adhesive Spreader No.777, Toothed blades No. 23

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
For exact colour matching, ensure the **Sikafloor®-261** in each area is applied from the same control batch numbers.

Curing Details

Applied Product ready for use

Temperature	Foot traffic	Light traffic	Full cure
+10°C	~ 30 hours	~ 5 days	~ 10 days
+20°C	~ 24 hours	~ 3 days	~ 7 days
+30°C	~ 16 hours	~ 2 days	~ 5 days

Note: Times are approximate and will be affected by changing ambient conditions.

Construction

Cleaning / Maintenance

Methods	To maintain the appearance of the floor after application, **Sikafloor®-261** 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.
Notes	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 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.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.
EU Regulation 2004/42 VOC - Decopaint Directive	According to the EU-Directive 2004/42, the maximum allowed content of VOC Product category IIA / **j** Type **sb**) is 550 / 500 g/l (Limits 2007 / 2010), for the ready to use product. The maximum content of **Sikafloor®-261,** is < 500. g/l VOC for the ready to use product.

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 should 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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