Construction

Sikafloor®-264

2-part epoxy roller and seal coat

Product Description

Sikafloor®-264 is a two part, economic, coloured epoxy resin.

"Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)"

Uses

- Roller coat for concrete and cement screeds with normal up to medium heavy wear e.g. storage and assembly halls, maintenance workshops, garages and loading ramps.
- Seal coat for broadcast systems, such as multi-storey 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
- Economical
- Liquid proof
- Gloss finish
- Slip resistant surface possible

Test

Approval / Standards

Particle emission certificate Sikafloor-264 CSM Statement of Qualification – ISO 14644-1, class 4– Report No. SI 0904-480.

Outgassing emission certificate Sikafloor-264: CSM Statement of Qualification – ISO 14644-8, class 6,5 - Report No. SI.

Fire classification in accordance with EN 13501-1, Report-No. 2007-B-0181/16, MPA Dresden, Germany, February 2007.

ISEGA Certificate of Conformity 27598 U 09

Product Data

Form

Appearance / Colours

Resin - part A: coloured, liquid
Hardener - part 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.

Packaging	Part A:	23.7 kg
	Part B:	6.3 kg
	Part A+B:	30 kg ready to mix unit
	Part A:	220 kg drums
	Part B:	177 kg, 59kg drums
	Part A+B:	1 Drum Part A (220 kg) + 1 drum Part B (59 kg) = 279 kg 3 Drums Part A (220 kg) + 1 Drum Part B (177 kg) = 837 kg

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	Part A: ~ 1.64 kg/l Part B: ~ 1.00 kg/l Mixed resin: ~ 1.40 kg/l All Density values at +23°C.	(DIN EN ISO 2811-1)
Solid Content	~ 100% (by volume) / ~ 100% (by weight)	

Mechanical / Physical Properties

Compressive Strength	Resin (filled 1:0,9 with F34): ~ 50 N/mm^2 (28 days / +23°C)	(EN 196-1)
Flexural Strength	Resin (filled 1:0,9 with F34): ~ 20 N/mm^2 (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 to many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C
Short-term max. 7 d	+80°C
Short-term max. 12 h	+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.

USGBC	Sikafloor®-264 conforms to the requirements of LEED
LEED Rating	EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100 g/l

System Information

System Structure

Roller coating:
Primer*: 1-2 x Sikafloor®-156/-161 (optional)
Coating: 2 x Sikafloor®-264

Textured roller coating:
Primer*: 1-2 x Sikafloor®-156/-161 (optional)
Coating: 1 - 2 x Sikafloor®-264 + Extender T

Textured roller coating with improved slip resistance:
Primer*: 1-2 x Sikafloor®-156/-161
Coating: 1 x Sikafloor®-264 + Extender T + quartz sand (0.1 - 0.5 mm)

Self-smoothing system 1.0 mm:
Primer: 1-2 x Sikafloor®-156/-161
Wearing course: 1 x Sikafloor®-264 + Sikafloor® Filler 1

Self-smoothing system 1.5 - 3.0 mm:
Primer: 1-2 x Sikafloor®-156/-161
Wearing course: 1 x Sikafloor®-264 + quartz sand (0.1 - 0.3 mm)

Broadcast system approx. 4 mm:
Primer*: 1-2 x Sikafloor®-156/-161
Base coat: 1 x Sikafloor®--264 + quartz sand (0.1 - 0.3 mm)
Broadcasting: quartz sand (0.4 - 0.7 mm) broadcast to excess
Seal coat: 1 x Sikafloor®-264

*Note: In cases of limited exposure and normal absorbent concrete substrates priming with Sikafloor®-161 is not necessary.

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	1-2 x Sikafloor® -156/-161	1-2 x 0.35 - 0.55 kg/m²
Levelling (optional)	Sikafloor®-156/-161 levelling mortar	Refer to PDS of Sikafloor®-156/-161
Roller coating	2 x Sikafloor®-264	0.25 - 0.3 kg/m² for each layer
Textured roller coating	1 - 2 x Sikafloor®-264 + Extender T	0.5 - 0.8 kg/m² per layer
Textured roller coating with improved slip resistance	10 pbw Sikafloor®-264 + Extender T + 1 pbw quartz sand (0.1 - 0.5 mm)	0.5 - 0.8 kg/m² 0.05 - 0.07 kg/m²
Self-smoothing wearing course (Film thickness ~ 1.0 mm)	1 pbw Sikafloor®-264 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®-264 1 pbw quartz sand (0.1 - 0.3 mm)	1.9 kg/m² mixture (0.95 kg/m² binder + 0.95 kg/m² quartz sand) per mm layer thickness
Broadcast system (Film thickness ~ 4.0 mm)	1 pbw Sikafloor®-264 1 pbw quartz sand (0.1 - 0.3 mm) + broadcasting quartz sand 0.4 -0.7 mm + Seal coat Sikafloor®-264	2.00 kg/m² 2.0 kg/m² ~ 6.0 kg/m² ~ 0.7 kg/m²

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/mm^2) with a minimum pull off strength of 1.5 N/mm^2.

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 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. The concrete or screed substrate has to be primed or levelled 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 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).
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.

Application Instructions

Mixing	Part A : part B = 79 : 21 (by weight)
Mixing Time	Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 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 minimise air entrainment.
Mixing Tools	Sikafloor®-264 must be thoroughly mixed using a low speed 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. *Primer:* Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor®-156 / 161 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®-156/-161 levelling mortar (see PDS). *Coating:* Sikafloor®-264 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.
Cleaning of Tools	Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.

Potlife

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

Waiting Time / Overcoating

Before applying Sikafloor®-264 on Sikafloor®-156/-161 allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	3 days
+20°C	12 hours	2 days
+30°C	8 hours	1 day

Before applying Sikafloor®-264 on Sikafloor®-263 SL allow:

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

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

Notes on Application / Limitations

Do not apply Sikafloor®-264 on substrates with rising moisture.

Do not blind the primer.

Freshly applied Sikafloor®-264 must be protected from damp, condensation and water for at least 24 hours.

For areas with limited exposure and normally absorbent concrete substrates priming with Sikafloor®-161 is not necessary for roller or textured coating 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®-264 in each area is applied from the same control batch numbers.

Under certain conditions, underfloor heating combined with high point loading, may lead to imprints in the resin.

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.

Curing Details

Applied Product ready for use

Temperature	Foot traffic	Light traffic	Full cure
+10°C	~ 72 hours	~ 6 days	~ 10 days
+20°C	~ 24 hours	~ 4 days	~ 7 days
+30°C	~ 18 hours	~ 2 days	~ 5 days

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

Cleaning / Maintenance

Methods

To maintain the appearance of the floor after application, Sikafloor®-264 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.

Value Base

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 shall refer to the most recent Material Safety Data Sheet 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.

It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

Note	**The following chapter is only mandatory for European countries.**

CE Labelling

The harmonized European Standard EN 13 813 „Screed material and floor screeds - Screed materials - Properties and requirements“ specifies requirements for screed materials for use in floor construction internally.

Structural screeds or coatings, i.e. those that contribute to the load bearing capacity of the structure, are excluded from this standard.

Resin floor systems as well as cementitious screeds fall under this specification. They have to be CE-labelled as per Annex ZA. 3, Table ZA.1.5 and 3.3 and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

CE	
Sika Deutschland GmbH Kornwestheimerstraße 103-107 D - 70439 Stuttgart	⇐ *)
07 [1)]	
EN 13813 SR-B1,5-AR1-IR 4	
Resin screed/coating for indoors in buildings (systems as per Product Data Sheet)	
Reaction to fire:	E_{fl} [2)]
Release of corrosive substances (**S**ynthetic **R**esin Screed):	NPD [2)]
Water permeability:	NPD [2)]
Abrasion **R**esistance:	AR1 [4)]
Bond strength:	B 1,5
Impact **R**esistance:	NPD
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

[1)] Last two digits of the year in which the marking was affixed.

[2)] Min. classification, please refer to the individual test certificate.

[3)] No performance determined.

[4)] Not broadcast with sand.

***) Please fill in your relevant producer address**

Construction

Note	The following chapter is only mandatory for European countries.

CE Labelling

The harmonized European Standard EN 1504-2 „Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2 : Surface protection systems for concrete" gives specifications for products and systems used as methods for the various principles presented under EN 1504-9.

Products which fall under this specification have to be CE-labelled as per Annex ZA. 1, Tables ZA.1a to ZA 1g according to the scope and relevant clauses there indicated, and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

Here below indicated are the minimum performance requirements set by the standard. For the specific performance results of the product to the particular tests, please see the actual values above in the PDS.

CE	
0921	
Sika Deutschland GmbH Kornwestheimerstraße 103-107 D - 70439 Stuttgart	⇐ *)
08 [1)]	
0921–CPD–2017	⇐ *)
EN 1504-2	
Surface Protection Product Coating [2)]	
Abrasion resistance (Taber test):	< 3000 mg
Permeability to CO_2:	S_D > 50 m
Permeability to water vapour:	Class III
Capillary absorption and permeability to water:	w < 0.1 kg/m^2 x h^{0,5}
Resistance to severe chemical attack: [3)]	Class I
Impact resistance:	Class I
Adhesion strength by pull-off test:	≥ 2.0 N/mm²
Fire Classification: [4)]	E_{fl}

[1)] Last two digits of the year in which the marking was affixed.

[2)] Tested as a part of a system build-up with Sikafloor®-161.

[3)] Please refer to the Sikafloor® Chemical Resistance Chart.

[4)] Min. classification, please refer to the individual test certificate.

***) Please fill in your relevant producer address and notified body.**

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 500 g/l (Limits 2010) for the ready to use product.

The maximum content of Sikafloor®-264 is < 500 g/l VOC for the ready to use product.

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