

PRODUCT DATA SHEET

Sikafloor®-721

2-PART LOW VOC EMISSIONS EPOXY COVERING FOR FLOORING APPLICATIONS

DESCRIPTION

Sikafloor®-721 is a two part, low-emission, self-smoothing epoxy floor covering designed for cleanroom environments.
"Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)".

USES

- Sikafloor®-721 may only be used by experienced professionals.
- Especially designed for the use in cleanroom environment, where low VOC/AMC and particle emissions are mandatory.
 - Also suitable as a hard wearing coat for many industries, such as automotive, pharmaceutical, storage facilities and warehouses.
 - Suitable for residential areas

CHARACTERISTICS / ADVANTAGES

- Extremely low VOC
- Bishenol A and benzylalcohol free
- Dodecylphenol free
- Good chemical and mechanical resistance
- Easy to clean
- Liquid proof

SUSTAINABILITY

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings
- IBU Environmental Product Declaration (EPD) available
- VOC emission certificate according to AgBB und DIBt approval requirements, Eurofins report No. G18792B
- VOC emission class label A+ according to French regulation, Eurofins report No. G18792C

APPROVALS / STANDARDS

- Fire classification in accordance with DIN EN 13501-1: 2010, class Bfl-S1, Report-No. KB-Hoch-141428, Germany, November, 2014
- Particle emission certificate Sikafloor-721 CSM Statement of Qualification - ISO 14644-1, class 4 - Report No.SI 1403695
- Outgassing emission certificate Sikafloor-721 CSM Statement of Qualification - ISO 14644-8, class -7.4 - Report No. SI 1403695.
- Excellent biological Resistance in accordance with ISO 846, CSM Report No. SI 1403695.
- Fluorescent test contamination (Riboflavin test) : very good, CSM Statement of Qualification , Report No.SI 1403695



PRODUCT INFORMATION

Chemical base	Epoxy		
Packaging	Part A	23.7 kg containers	
	Part B	6.3 kg containers	
	Part A+B	30 kg ready to mix units	
Appearance / Colour	Resin - part A	coloured, liquid	
	Hardener - part B	transparent, liquid	
Shelf life	24 months from date of production		
Storage conditions	The packaging must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C.		
Density	Part A	~1.62 kg/l	(DIN EN ISO 2811-1)
	Part B	~1.06 kg/l	
	Mixed Resin	~1.46 kg/l	
	Filled resin 1 : 0.4	~1.66 kg/l	
	All density values at +23°C		
Solid content by weight	~100 %		
Solid content by volume	~100 %		
Volatile organic compound (VOC) content	0.1 mg/m ³ Eurofins Emission tested according to the AgBB-scheme and guidelines of the DiBt (AgBB – Committee for Health-related Evaluation of Building Products, DiBt – German Institute for Building Technology). Sampling, testing and evaluation were performed according to ISO-16000, Report No G18792B.		

TECHNICAL INFORMATION

Shore D Hardness	~77 (7 days / +23 °C)	(DIN 53 505)
Abrasion Resistance	~30 mg (CS 10/1000/1000) (7 days / +23°C)	(DIN 53 109 (Taber Abraser Test))
Tensile Strength in Flexure	Mortar: ~ 36 N/mm ² (28 days / +23°C)	(Standard)
Tensile Strength	Mortar: ~ 20 N/mm ² (14 days / +23°C)	(EN 13892-2)
Tensile Adhesion Strength	> 1.5 N/mm ² (failure in concrete)	(ISO 4624)
Thermal Resistance	Exposure*	Dry heat
	Permanent	+50 °C
	Short-term max. 7 d	+80 °C
	Short-term moist/wet heat* up to +80 °C where exposure is only occasional (steam cleaning etc.).	
	*No simultaneous chemical and mechanical exposure.	

SYSTEMS

Systems	Please refer to the System Data Sheet: Sikafloor® Multidur ES-24 EQ Smooth unicolour Clean Room Certified epoxy floor covering	
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APPLICATION INFORMATION

Mixing ratio	Part A : part B = 79: 21 (by weight)
Consumption	Maximum 2.5 kg/m ² Binder mixed with quartz sand -Please refer to the System Data Sheet of Sikafloor® Multidur ES-24 EQ

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	Temperature	Time
	+10 °C	~ 50 minutes
	+20 °C	~ 25 minutes
	+30 °C	~ 15 minutes
Curing time	Before overcoating Sikafloor®-721 allow:	
	Substrate temperature	Minimum Maximum
	+10 °C	72 hours 4 days
	+20 °C	30 hours 2 days
	+30 °C	16 hours 24 hours
	Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.	

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- Concrete substrates 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.
- On critical substrates, e.g a strong absorbent cementitious surface, the application of a trial area is highly recommended, in order to ensure a pore free surface, after priming.
- 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 must 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.

MIXING

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. When parts A and B have been mixed, add the quartz sand 0.1–0.3 mm 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 minimise air entrainment.

Mixing Tools

Sikafloor®-721 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, relative air humidity and dew point.

If > 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a temporary moisture barrier (T.M.B.) system.

Levelling:

Rough surfaces need to be levelled first. Therefore use Sikafloor®-721 levelling mortar (see PDS).

Wearing course smooth:

Sikafloor®-721 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 (within max. 10 minutes of application) in two directions with a spiked roller to ensure

even thickness and to remove entrapped air. To obtain the highest level of aesthetic finish, spike roll in two directions at a 90 degree angle, passing only once in each direction.

CLEANING OF TOOLS

Removal of fresh remnants from tools and application equipment can be carried out using Thinner C immediately after use. Hardened / cured material can only be mechanically removed.

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, Sikafloor®-721 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.

FURTHER DOCUMENTS

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".

Cleaning & Maintenance

Please refer to Sika Method Statement: "SIKAFLOOR® CLEANING REGIME".

LIMITATIONS

- Do not apply Sikafloor®-721 on substrates with rising moisture
- Do not blind the primer.
- Freshly applied Sikafloor®-721 must be protected from damp, condensation and water for at least 24 hours.
- Avoid puddles on the surface with the primer.
- For exact colour matching, ensure the Sikafloor®-721 in each area is applied from the same control batch numbers.

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. 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.

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.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, 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®-721 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 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.

Sika Hellas ABEE
15 Protomagias Str.
14568 Kryoneri
Attica-Greece
Tel.: +30 210 8160 600
Fax: +30 210 8160 606
www.sika.gr | sika@gr.sika.com



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