

PRODUCT DATA SHEET

Sikafloor®-2540 W

2-part low emission water-based epoxy coating

DESCRIPTION

Sikafloor®-2540 W is a 2-part, low emission water based, coloured, epoxy resin-based floor coating that can provide a low maintenance easy to clean smooth gloss finish. For medium - heavy wear conditions. Internal and external use.

USES

Sikafloor®-2540 W may only be used by experienced professionals.

The Product is used as a:

- Coating for concrete, cementitious screeds, Sikafloor epoxy broadcast systems and Sikadur epoxy mortars
- The Product is used for the following application areas:

- Production areas
- Warehouses
- Storage areas
- Internal car park decks

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Low VOC emissions
- Low Airborne Molecular Contaminants (AMC) emissions
- Good resistance to abrasion
- Resistant to many chemicals
- Good mechanical resistance
- Water dilutable
- Low odour
- Easy application
- Gloss finish
- Easy to clean and maintain

ENVIRONMENTAL INFORMATION

- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Environmental Product Declarations (option 1)
- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Material ingredients (option 2)
- Conforms with LEED v4 EQ credit: Low-emitting materials
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)
- VOC emission classification GEV Eimcode EC1^{plus}
- French regulation on indoor VOC emissions class A+

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 1504-2:2004 Products and systems for the protection and repair of concrete structures — Surface protection systems for concrete — Coating
- CE marking and declaration of performance based on EN 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Synthetic resin screed material
- Particle Emission ISO 14644-1, Sikafloor®-2540 W, CSM Fraunhofer, Approval No SI 1212-624
- Particle Emission EU GMP Annex 1, Sikafloor®-2540 W, CSM Fraunhofer, Certificate No SI 1212-624
- Outgassing Emissions VOC VDI 2083-17, Sikafloor®-2540 W, CSM Fraunhofer, Certificate No SI 1212-624
- Biological Resistance ISO 846, Sikafloor®-2540 W, CSM Fraunhofer, Certificate No SI 1212-624
- Decontamination DIN 25415, Sikafloor®-2540 W, ILF, Certificate No 170119

PRODUCT INFORMATION

Chemical Base	Water based epoxy		
Packaging	Part A	4.3 kg containers	
	Part B	1.7 kg containers	
	Part A + B	6 kg containers	
	Part A	13 kg containers	
	Part B	5 kg containers	
	Part A + B	18 kg containers	
	Refer to current price list for packaging variations.		
Shelf Life	12 months from date of production		
Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.		
Appearance / Colour	IMPORTANT		
	Ensuring consistent colour matching		
	For consistent colour matching, make sure the Product in each area is applied from the same control batch numbers.		
	Resin – Part A	coloured liquid	
	Hardener – Part B	white liquid	
	Available in a wide range of colours. Please contact Sika customer service for availability. Applied colours selected from colour charts will be approximate. For colour matching: Apply colour sample and confirm selected colour under real lighting conditions. Note: When the Product is exposed to direct sunlight, there may be some discolouration and colour variation. This has no influence on the function and performance of the Product.		
Density	Resin	Density at +23 °C	(EN ISO 2811-1)
	Part A	~1.33 kg/L	
	Part B	~1.09 kg/L	
	Mixed resin	~1.30 kg/L	
Solid Content by Weight	~55 %		
Solid Content by Volume	~43 %		

TECHNICAL INFORMATION

Abrasion Resistance	~918 mg (H22 /1000 g /1000 cycles) (7 days / +23 °C)		(EN ISO 5470-1)
Thermal Resistance	IMPORTANT		
	Exposure to moist or wet heat		
	This product, can resist short-term moist or wet heat of up to +80 °C, if the exposure is only temporary (less than 1 hour). However, during exposure to moist or wet heat, do not also subject the Product to chemical and/or mechanical strain, as it may cause damage.		
	Exposure	Dry heat	
	Permanent	+60 °C	
	Short-term max. 7 days	+80 °C	
	Short-term max. 12 hours	+100 °C	
Chemical Resistance	Resistant to many chemicals. Contact Sika technical service for specific information		

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B = 72: 28 (by weight)		
Consumption	~0.2–0.3 kg/m ² applied as a roller coating Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.		
Product Temperature	Maximum	+30 °C	
	Minimum	+10 °C	
Ambient Air Temperature	Maximum	+30 °C	
	Minimum	+10 °C	
Relative Air Humidity	75 % maximum		
Dew Point	Beware of condensation. The substrate and uncured applied product must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.		
Substrate Temperature	Maximum	+30 °C	
	Minimum	+10 °C	
Substrate Moisture Content	Substrate	Test method	Moisture content
	Cementitious substrates	Sika® Tramex moisture metre	≤ 6 %
	Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %
	Substrate	Test method	Moisture content
	Magnesite screeds	Calcium carbide method (CM-method)	≤ 4 %
	Anhydrite screeds	Calcium carbide method (CM-method)	≤ 0.3 %
No rising moisture (ASTM D4263, polyethylene sheet)			
Pot Life	Temperature	Time	
	+30 °C	~30 minutes	
	+20 °C	~90 minutes	
	+10 °C	~120 minutes	
Curing Time	Substrate temperature	Maximum	Minimum
	+30 °C	7 days	10 hours
	+20 °C	5 days	48 hours
	+10 °C	3 days	48 hours
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.			

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.

FURTHER DOCUMENTS

Refer to the following Sika® Method Statements:

- Sika® Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika® Method Statement: Mixing & Application of Flooring Systems
- Sika® Method Statement: Sikafloor®-Cleaning Regime

LIMITATIONS

- The “gloss” of the finish can vary with temperature, humidity and the absorbency of the substrate.
- When using light colour shades (e.g. yellow or orange), it may be necessary to apply several coats of Sikafloor® Garage to achieve full opacity (hiding power).
- Uneven application of the coating, resulting in variable coating layer thicknesses, may cause ‘gloss’ differences in the surface finish.

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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project:

SUBSTRATE PREPARATION

- Abrasive blasting cleaning system
- Planing machine
- Scarifying machine

MIXING

- Electric double paddle mixer ~700 W (300–400 rpm)
- Scraper
- Clean mixing containers

APPLICATION

- Mixed material carrier
- Short pile (12 mm) nylon rollers

SUBSTRATE QUALITY

Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².

Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.

TREATMENT OF JOINTS AND CRACKS

Construction joints and existing static surface cracks in substrate require pre-treating before full layer application. Use Sikadur® or Sikafloor® resins.

SUBSTRATE PREPARATION

MECHANICAL SUBSTRATE PREPARATION

IMPORTANT

Exposing blow holes and voids

When mechanically preparing the surface, make sure to fully expose blow holes and voids.

1. Remove weak cementitious substrates.
2. Prepare cementitious substrates mechanically using abrasive blast cleaning or planing / scarifying equip-

ment to remove cement laitance.

3. Before applying thin layer resins, remove high spots by grinding.
4. Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.
5. Use products from the Sikafloor®, Sikadur® and Sikagard® range of materials to level the surface or fill cracks, blow holes and voids.

Contact Sika® Technical Services for additional information on products for levelling and repairing defects.
SUBSTRATE PREPARATION OF NON-CEMENTITIOUS SUBSTRATES

For information on substrate preparation of non-cementitious substrates, contact Sika technical services.

MIXING

1. Prior to mixing all parts, mix Part A (resin) using an electric double paddle mixer. Mix liquid and all the coloured pigment until a uniform colour and mix has been achieved.
2. Add Part B (hardener) to Part A.
3. Mix Part A + B continuously for ~2 minutes until a uniformly coloured mix is achieved.
Note: Avoid excessive mixing to minimise air entrainment.
4. To ensure thorough mixing, pour materials into another container and mix again for at least 1 minute to achieve a smooth and uniform mix.
5. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

APPLICATION

IMPORTANT

Indentations

Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading may lead to indentations in the resin.

IMPORTANT

Temporary heating

If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish.

- For heating, use only electric powered warm air blower systems.

IMPORTANT

Ventilation in confined spaces

Always ensure good ventilation when applying the Product in a confined space.

IMPORTANT

Temporary moisture barrier

If the substrate moisture content measured with the CM-method is > 4 % by weight, apply a temporary moisture barrier consisting of Sikafloor® EpoCem®.

- Contact Sika technical services for more information.

PRIMER

1. Pour mixed primer onto the prepared substrate and apply by brush, roller or squeegee.
2. Back roller in two directions at right angles to each other.

Note: Ensure a continuous, pore free coat covers the

- substrate. If necessary, apply two priming coats.
3. Confirm waiting / overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet.

COATING

1. Apply the Product onto the prepared substrate using a short-piled roller in two directions at right angles to each other.

Note: A seamless finish can be achieved if a 'wet' edge is maintained during application.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically.

MAINTENANCE

To maintain the appearance of the floor after application, the Product 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. Refer to Sika Method Statement: Sikafloor®-Cleaning Regime.

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. 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.

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