

# PRODUCT DATA SHEET

## Sikafloor®-2540 W

### 2-PART LOW EMISSION WATER BASED EPOXY COATING

#### PRODUCT 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 installation works to be carried out only by Sika Approved Contractors. Please observe information given by Product Data Sheets.

- Coloured epoxy coating on concrete, cementitious screeds, top coat for broadcast systems and epoxy mortars
- Normal up to medium heavy mechanical and chemical exposure
- For production areas, warehouses, car park decks, garages, etc.

#### CHARACTERISTICS / ADVANTAGES

- Low VOC / AMC emissions
- Good abrasion resistance
- Good chemical and mechanical resistance
- Water dilutable
- Odourless
- Easy application
- Gloss finish
- Low maintenance

#### ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients
- Conformity with LEED v4 EQc 2: Low-Emitting Materials

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings
- IBU Environmental Product Declaration (EPD) available
- Emissions DIBt, Sikafloor®-2540 W, eurofins, Test report No. G18793B
- VOC emission classification of building materials RTS M1
- VOC Emissions French Regulations, Sikafloor®-2540W, eurofins, Report No 392-2014-00087005C

#### APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating
- CE Marking and Declaration of Performance to EN 13813 - Resin screed material for internal use in buildings
- Biological Resistance ISO 846, Sikafloor®-2540 W, CSM Fraunhofer, Approval and Certificate No. SI 1212-624
- Decontamination DIN 25415, Sikafloor®-2540 W, ILF, Certificate No 170119
- Floor Coating System DIN EN 13813, Sikafloor®-2540 W, DIBt, Approval No Z-156.605-1300
- Migration Behaviour Sikafloor®-2540 W, ISEGA, Certificate 43250 U 16
- Outgassing Emissions VOC ISO 14644-1, Sikafloor®-2540 W, CSM Fraunhofer, Approval and Certificate No. SI 1212-624
- Particle Emission EU GMP Annex 1, Sikafloor®-2540W, CSM Fraunhofer, Approval and Certificate No. SI 1212-624
- Particle Emission ISO 14644-1, Sikafloor®-2540 W, CSM Fraunhofer, Approval and Certificate No. SI 1212-624
- Sliding Test, Sikafloor®-2540 W, Roxeler Baustoffprüfstelle, Reports No 020227-17-9a, 020227-17-11a, 020227-17-8a

## PRODUCT INFORMATION

|                            |   |                            |                     |
|----------------------------|---|----------------------------|---------------------|
| <b>Chemical Base</b>       | Epoxy, waterborne   |                            |                     |
| <b>Packaging</b>           | Part A  | 13.0 kg containers         |                     |
|                            | Part B  | 5.0 kg containers          |                     |
|                            | Part A+B  | 18.0 kg ready to mix units |                     |
| <b>Appearance / Colour</b> | Resin - Part A:   | Coloured, liquid           |                     |
|                            | Hardener - Part B   | Transparent, liquid        |                     |
|                            | Available in various colour shades.<br>Applied colours selected from colour charts will be approximate. It is recommended that applied colour samples must be compared against colour chart colours under the same lighting conditions before final selection. When 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 coating. Product can be used outside provided discolouration is acceptable by the customer. |                            |                     |
| <b>Shelf Life</b>          | 12 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 +30°C.   |                            |                     |
| <b>Density</b>             | Part A  | ~ 1.33 kg/l                | (DIN EN ISO 2811-1) |
|                            | Part B  | ~ 1.09 kg/l                |                     |
|                            | Mixed resin   | ~ 1.40 kg/l                |                     |
|                            | All Density values at +23°C.  |                            |                     |
| <b>Solid Content</b>       | ~ 43% (by volume) / ~ 55% (by weight)   |                            |                     |

## TECHNICAL INFORMATION

|                            |   |                 |
|----------------------------|---|-----------------|
| <b>Abrasion Resistance</b> | ~63 mg (CS 10/1000/1000) (14 days / +23°C) (DIN 53 109)(Taber Abrader Test)   |                 |
| <b>Chemical Resistance</b> | Resistant to many chemicals. Contact Sika Technical Services for additional information .   |                 |
| <b>Thermal Resistance</b>  | <b>Exposure*</b>  | <b>Dry heat</b> |
|                            | Permanent   | +60 °C          |
|                            | Short-term max. 7 days  | +80 °C          |
|                            | Short-term max. 12 hours  | +100 °C         |
|                            | Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning etc.).<br>*No simultaneous chemical and mechanical exposure and only in combination with Sikafloor® systems as a broadcast system with approx. 3 - 4 mm thickness. |                 |

## SYSTEM INFORMATION

|                |  |   |
|----------------|--|---|
| <b>Systems</b> | Please refer to the system data sheet of : |   |
|                | Sikafloor® Multidur WS-10                  | Double water based epoxy roller coat          |
|                | Sikafloor® Multidur WT-10                  | Double water based epoxy textured roller coat |

## APPLICATION INFORMATION

|                     |   |
|---------------------|---|
| <b>Mixing Ratio</b> | Part A : Part B = 72 : 28 (by weight)   |
| <b>Consumption</b>  | ~ 0,2-0,3 kg/m <sup>2</sup> applied as a roller coating<br>These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc. For detailed info, please refer to the System data sheet Sikafloor® Multidur WS-10 and Sikafloor® Multidur WT-10. |

|   |  |                     |                      |                  |
|---|--|---------------------|----------------------|------------------|
| <b>Ambient Air Temperature</b>  | +10 °C min. / +30 °C max.  |                     |                      |                  |
| <b>Relative Air Humidity</b>  | 80 % max.  |                     |                      |                  |
| <b>Dew Point</b>  | Beware of condensation!<br>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.<br>Note: Low temperatures and high humidity conditions increase the probability of blooming. |                     |                      |                  |
| <b>Substrate Temperature</b>  | +10 °C min. / +30 °C max.  |                     |                      |                  |
| <b>Substrate Moisture Content</b>   | ≤ 6% pbw moisture content.<br>Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method.<br>No rising moisture according to ASTM (Polyethylene-sheet).  |                     |                      |                  |
| <b>Pot Life</b>   | <b>Temperature</b>   | <b>Time</b>         |                      |                  |
|   | +10 °C   | ~ 120 minutes       |                      |                  |
|   | +20 °C   | ~ 90 minutes        |                      |                  |
|   | +30 °C   | ~ 45 minutes        |                      |                  |
| <b>Curing Time</b>  | Before overcoating Sikafloor®-2540 W allow:  |                     |                      |                  |
|   | <b>Substrate temperature</b>   | <b>Minimum</b>      | <b>Maximum</b>       |                  |
|   | +10 °C   | 48 hours            | 7 days               |                  |
|   | +20 °C   | 20 hours            | 5 days               |                  |
| +30 °C  | 10 hours   | 3 days              |                      |                  |
| Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. |  |                     |                      |                  |
| <b>Applied Product Ready for Use</b>  | <b>Temperature</b>   | <b>Foot traffic</b> | <b>Light traffic</b> | <b>Full cure</b> |
|   | +10 °C   | ~ 48 hours          | ~ 5 days             | ~ 10 days        |
|   | +20 °C   | ~ 20 hours          | ~ 3 days             | ~ 7 days         |
|   | +30 °C   | ~ 10 hours          | ~ 2 days             | ~ 5 days         |
| Note: Times are approximate and will be affected by changing ambient conditions.  |  |                     |                      |                  |

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum tensile strength of 1.5 N/mm<sup>2</sup>. Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material. Cementitious substrates must be prepared mechanically using suitable abrasive blast cleaning or planing / scarifying equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness. High spots can be removed by grinding. Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed. Repairs to the substrate, filling of cracks, blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before applying Sikafloor®-2540 W. All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.

### MIXING

Prior to mixing all parts, mix part A (resin) using a low speed single paddle electric stirrer (300–400 rpm) to mix liquid and all the coloured pigment to a uniform colour has been achieved. Add part B (hardener) to part A and mix part A + B continuously for 2,0 minutes until a uniformly coloured mix has been achieved. To ensure thorough mixing pour materials into a clean container and mix again for at least 1,0 minute to achieve a smooth consistent mix. Over mixing must be avoided to minimise air entrainment. 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. Mix full units only. Mixing time for A+B = 3 minutes.

### APPLICATION

Prior to application, confirm substrate moisture content, relative air humidity and dew point. If > 6 % pbw moisture content, Sikafloor® EpoCem® may be applied as a temporary moisture barrier (T.M.B.) system. **Primer** Pour mixed Sikafloor® primer onto the prepared substrate and apply by brush, roller or squeegee then back roller in two directions at right angles to each other. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two

priming coats. Confirm waiting /overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet. **Seal / top coat** After waiting the appropriate overcoating time, pour the mixed Sikafloor®-2540 W onto prepared substrate and apply evenly using a nylon roller at the required consumption rate in two directions at right angles to each other. 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

##### CLEANING

To maintain the appearance of the floor after application, Sikafloor®-2540 W 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

- Sika® Information Manual: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika® Information Manual: Mixing & Application of Flooring Systems
- Sika® Information Manual: Sikafloor®-Cleaning Regime
- System Data Sheet: Sikafloor® MultiDur WS-10
- System Data Sheet: Sikafloor® MultiDur WT-10

#### LIMITATIONS

- After application, Sikafloor®-2540 W must be protected from damp, condensation and water for at least 24 hours.
- Always ensure adequate fresh air ventilation when using Sikafloor®-2540 W in confined spaces to avoid curing problems.
- The "gloss" of the finish can vary with temperature, humidity and the absorbency of the substrate.
- With light colour shades (e.g. yellow or orange) it may be necessary to apply several coats of Sikafloor®-2540 W to achieve full opacity (hiding power).
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Sikafloor®-2540 W 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.
- If temporary heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use

- only electric powered warm air blower systems.
- Do not apply Sikafloor®-2540 W on substrates with rising moisture.

#### VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

#### LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

#### ECOLOGY, HEALTH AND SAFETY

##### 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 / x type xx) is 140 g/l (Limits 2010) for the ready to use product.

The maximum content of Sikafloor®-2540 W is ≤ 140 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.

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