

# **BUILDING TRUST**

# PRODUCT DATA SHEET

# Sikafloor®-2540 W

## 2-PART LOW EMISSION WATER BASED EPOXY COATING

# **PRODUCT DESCRIPTION**

Sikafloor®-2540 W is a two part, AgBB approved, water dispersed, coloured, epoxy resin based coating for flooring applications.

#### **USES**

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

- Coloured epoxy coating for concrete, cement screeds, broadcast systems and epoxy mortars
- Can be subjected to normal up to medium heavy mechanical and chemical loading
- For production areas, warehouses, car park decks, garages, etc.

# **CHARACTERISTICS / ADVANTAGES**

- Low VOC / AMC emissions
- Low particle emissions
- Good chemical and mechanical resistance
- Water vapour permeable
- Water dilutable
- Odourless
- Easy application

## **ENVIRONMENTAL INFORMATION**

#### **LEED Rating**

Sikafloor®-2540 W conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100 g/l

# APPROVALS / STANDARDS

- Water based epoxy seal coating according to EN 1504-2: 2004 and EN 13813:2002, DoP 02 08 11 01 002 0 000008 2017, certified by Factory Production Control Body No. 0921, certificate 2017, and provided with the CE-mark
- ISEGA Certificate of Conformity 35982 U 13, July 2013
- Bfl-s1 fire classification in accordance with EN 13501-1, Report-No. PB-Hoch-130018, Germany, December 2012
- Particle emission certificate Sikafloor-2540 CSM Statement of Qualification – ISO 14644-1, class 4– Report No. SI 1212-624 and GMP class A, Report No. SI 1212-624.
- Outgassing emission certificate Sikafloor-2540W: CSM Statement of
- Qualification ISO 14644-8, class 9.6 Report No. SI 1212-624.
- Good biological Resistance in accordance with ISO 846, CSM Report No. 1212-624
- 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. G20152B.
- Eurofins Emission tested according to the Emicode EC1+-scheme , Report No. G19919B
- Eurofins Emission tested according to M1 Protocol, Report No. 392-2014-00087005D
- Eurofins Emission tested according to French Label, Report No. 392-2014-00087005A

# **PRODUCT INFORMATION**

| Chemical Base               | Epoxy, waterborne   |   |  |  |  |  |  |
|-----------------------------|---|---|--|--|--|--|--|
| Packaging                   | Part A  | 13.0 kg containers  |  |  |  |  |  |
|                             | Part B  | 5.0 kg containers   |  |  |  |  |  |
|                             | Part A+B  | 18.0 kg ready to mix units  |  |  |  |  |  |
| Appearance / Colour         |   |   |  |  |  |  |  |
|                             | Resin - part A:   | coloured, liquid  |  |  |  |  |  |
|                             | Hardener - part B   | transparent, liquid   |  |  |  |  |  |
|                             | Available in various colour shades.   |   |  |  |  |  |  |
| 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.   |   |  |  |  |  |  |
| Density                     |   |   |  |  |  |  |  |
|                             | Part A ~ 1  | 1.33 kg/l (DIN EN ISO 2811-1)   |  |  |  |  |  |
|                             | Part B ~ 1  | 1.09 kg/l   |  |  |  |  |  |
|                             | Mixed resin ~ 1   | 1.40 kg/l   |  |  |  |  |  |
|                             | All Density values at +23°C.  |   |  |  |  |  |  |
| Solid Content               | ~ 43% (by volume) / ~ 55% (by weight)   |   |  |  |  |  |  |
| TECHNICAL INFORMATION       |   |   |  |  |  |  |  |
| Abrasion Resistance         | 63 mg (CS 10/1000/1000) (14 days  | 5 / +23°C) (DIN 53 109)(Taber Abrader Test)   |  |  |  |  |  |
| Chemical Resistance         | Resistant to many chemicals. Pleas  | se ask for a detailed chemical resistance table.  |  |  |  |  |  |
| Thermal Resistance          | Exposure*   | Dry heat  |  |  |  |  |  |
|                             | Permanent   | . 60 %  |  |  |  |  |  |
|                             |   | +60 °C  |  |  |  |  |  |
|                             | Short-term max. 7 d   | +80 °C  |  |  |  |  |  |
|                             | Short-term max. 7 d<br>Short-term max. 12 h   | +80 °C<br>+100 °C   |  |  |  |  |  |
|                             | Short-term max. 7 d Short-term max. 12 h Short-term moist/wet heat* up al (steam cleaning etc.).  | +80 °C<br>+100 °C<br>o to +80°C where exposure is only occasion-  |  |  |  |  |  |
| SYSTEM INFORMATION          | Short-term max. 7 d Short-term max. 12 h Short-term moist/wet heat* up al (steam cleaning etc.). *No simultaneous chemical and mechanical   | +80 °C<br>+100 °C<br>o to +80°C where exposure is only occasion-  |  |  |  |  |  |
| SYSTEM INFORMATION  Systems | Short-term max. 7 d Short-term max. 12 h Short-term moist/wet heat* up al (steam cleaning etc.). *No simultaneous chemical and mechanical broadcast system with approx. 3 - 4 mm thic   | +80 °C<br>+100 °C<br>to +80°C where exposure is only occasion-<br>exposure and only in combination with Sikafloor® systems as a<br>ckness.  |  |  |  |  |  |
|                             | Short-term max. 7 d Short-term max. 12 h Short-term moist/wet heat* up al (steam cleaning etc.). *No simultaneous chemical and mechanical   | +80 °C<br>+100 °C<br>to +80°C where exposure is only occasion-<br>exposure and only in combination with Sikafloor® systems as a<br>ckness.  |  |  |  |  |  |
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|                             | Short-term max. 7 d Short-term max. 12 h Short-term moist/wet heat* up al (steam cleaning etc.). *No simultaneous chemical and mechanical broadcast system with approx. 3 - 4 mm thic  Please refer to the system data Sikafloor® Multidur WS-10  Sikafloor® Multidur WT-10   | +80 °C +100 °C  to +80°C where exposure is only occasion- exposure and only in combination with Sikafloor® systems as a ckness.  a sheet of:  Double water based epoxy roller coat Double water based epoxy textured  |  |  |  |  |  |
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| APPLICATION INFORMATIO      | Short-term max. 7 d Short-term max. 12 h  Short-term moist/wet heat* up al (steam cleaning etc.). *No simultaneous chemical and mechanical broadcast system with approx. 3 - 4 mm thic  Please refer to the system data Sikafloor® Multidur WS-10  Sikafloor® Multidur WT-10  N  Part A: part B = 72: 28 (by weing the series of the system applied as a role | +80 °C +100 °C  to to +80°C where exposure is only occasion- exposure and only in combination with Sikafloor® systems as a ckness.  a sheet of:  Double water based epoxy roller coat  Double water based epoxy textured roller coat  ight)  Iller coating and do not allow for any additional material e profile, variations in level or wastage etc. to the System data sheet Sikafloor® Multidur |  |  |  |  |  |

80 % r.h. max.

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**Relative Air Humidity** 



| Dew Point                     | The substrate ar<br>reduce the risk of<br>Note: Low temp  | 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. / +3  | +10 °C min. / +30 °C max.  |          |               |               |           |  |  |  |
| Substrate Moisture Content    | Test method: Sil  | < 6% 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   | Temperature  |          | Time          |               |           |  |  |  |
|                               | +10 °C  |  |          | ~ 120 minutes |               |           |  |  |  |
|                               | +20 °C  |  |          | ~ 90 minutes  |               |           |  |  |  |
|                               | +30 °C  |  |          |               | ~ 45 minutes  |           |  |  |  |
| Curing Time                   | Before overcoating Sikafloor®-2540 W allow:   |  |          |               |               |           |  |  |  |
|                               | Substrate temp  | Substrate temperature N  |          | Minimum       |               | Maximum   |  |  |  |
|                               |   | +10 °C   |          | 48 hours      |               | 7 days    |  |  |  |
|                               | +20 °C  |  | 20 hours |               | 5 days        |           |  |  |  |
|                               | +30 °C  | +30 °C 10 hours  |          | 3 days        |               |           |  |  |  |
|                               | Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. |  |          |               |               |           |  |  |  |
| Applied Product Ready for Use | Temperature   | Foot traffic   |          | Light traffic | fic Full cure |           |  |  |  |
|                               | +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**

- The concrete, cementitious screed or ahydrite 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 can be damp but must be free of standing water and free of all contaminants such as oil, grease, coatings and surface treatments etc. If in doubt, apply a test area first.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Anhydrite substrates must be clean and free from contaminates, the surface may also be sanded to suit the desired aesthetics.
- Weak concrete must be removed and surface defects such as blow holes 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.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush 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. 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®-2540 W 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, r.h. and dew point.

If > 6% 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. When used as a primer always apply by brush.

# Seal coat:

Sikafloor®-2540 W is spread evenly by means of a short pile roller.

A seamless finish can be achieved if a "wet" edge is maintained during application.

Uneven application of the material and resulting differences in the coating layer thicknesses may cause differences in "gloss" of the surface.



#### **CLEANING OF TOOLS**

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

## **MAINTENANCE**

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**

#### Substrate quality & Preparation

Please refer to Sika Information Manual: "EVALU-ATION AND PREPARATION OF SURFACES FOR FLOOR-ING SYSTEMS".

#### Application instructions

Please refer to Sika Information Manual: "MIXING & APPLICATION OF FLOORING SYSTEMS".

#### Maintenance

Please refer to "Sikafloor®- CLEANING REGIME".

## **LIMITATIONS**

Please note:

- Do not apply Sikafloor®-2540 W on substrates with rising moisture.
- Freshly applied Sikafloor®-2540 W should 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).
- Under direct sun radiation there may be some discolouration and colour deviation, this has no influence on the function and performance of the coating.
- 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.
- When used as a colourless coating Sikafloor®-2540 W will highlight and incosistencies and marks in the substrate beneath.
- Under certain conditions, underfloor heating or high ambient temperatures 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<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.

## **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.

# **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  $\leq$  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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