

## SYSTEM DATA SHEET

# Sikafloor® MonoFlex MB-23

SMOOTH, 1 COMPONENT POLYURETHANE, CRACK BRIDGING FLOOR FINISH

### PRODUCT DESCRIPTION

Sikafloor® MonoFlex MB-23 is a durable, flexible, smooth floor coating for balconies, terraces, stairs or terraces and it is part of the Sikafloor® MonoFlex flooring series.

Sikafloor® MonoFlex MB-23 is composed of one part, pigmented, highly elastic, solvent containing, UV resistant, polyurethane layer which is left exposed as decorative floor or is optionally covered with a polyurethane, one component trafficable clear coat.

Sikafloor® MonoFlex MB-23 makes use of Sika's unique i-Cure technology to improve surface aesthetics and reduce sensitivity for ambient humidity during application.

### USES

Sikafloor® MonoFlex MB-23 may only be used by experienced professionals.

- For balconies, terraces, footbridges, stairways, galleries etc.
- As smooth, UV resistant, waterproof, crack-bridging coating for concrete, cementitious screed substrates and tiles.
- For light to medium mechanical exposure

### CHARACTERISTICS / ADVANTAGES

- Highly elastic
- Crack-bridging properties
- Waterproof
- Good UV yellowing resistance
- Weather resistant
- Abrasion resistant under normal traffic conditions
- Slip resistant surfaces are possible

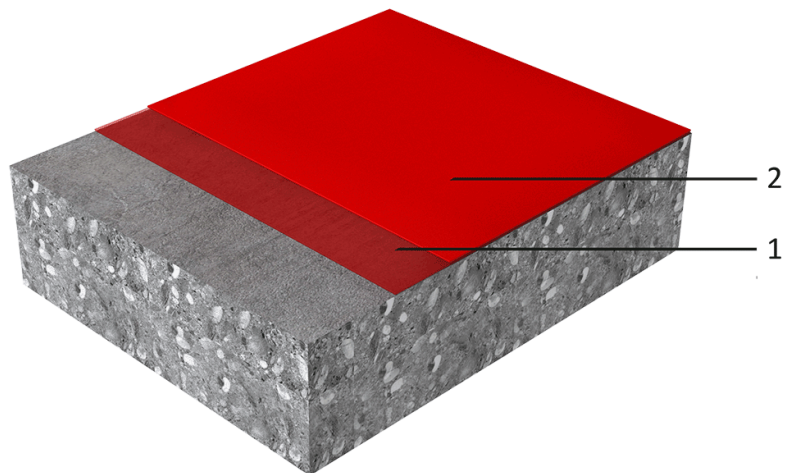
### APPROVALS / STANDARDS

- Synthetic resin screed material according to EN13813:2002, Declaration of Performance and provided with the CE marking
- Coating for surface protection of concrete according to EN 1504-2:2004, Declaration of Performance and provided with the CE marking
- Fire classification reports No. WF 389846 from EX-OVA Warringtonfire
- Accelerated Abrasion Resistance test in accordance with BS 8204-2:2003 + A2:2011
- Indentation test after constant loading according to EN 433
- Determination of Static Crack Bridging Ability according to EN 1062-7, report number 25545, test performed at Vinci Technology Center, United Kingdom
- Resistance to Urine of Polyurethane Coating System in accordance with the principles outlined in EN 2812-3:2012-10 Determination of resistance to liquids Part 3: Method using an absorbent medium.
- Determination of Odour concentration according to EN 13725:2003, test performed at Odournet, Report – No.: 456-2014-00
- Determination of Hedonic Tone according to VDI 3882 and ISO 16000-28 (D), test performed at Odournet, Report – No.: 456-2014-00

# SYSTEM INFORMATION

System Structure

Sikafloor® MonoFlex MB-23



| Layer        | Product   |
|--------------|---|
| 1. Primer    | Sikafloor®-161 or Sika® Concrete Primer or Sika® Bonding Primer |
| 2. Base Coat | Sikafloor® -420   |

|                          |                                  |
|--------------------------|----------------------------------|
| <b>Chemical base</b>     | Polyurethane                     |
| <b>Appearance</b>        | Smooth finish                    |
| <b>Colour</b>            | Multiple colour shades available |
| <b>Nominal Thickness</b> | ~1–2 mm                          |

## TECHNICAL INFORMATION

|                                     |  |                         |
|-------------------------------------|--|-------------------------|
| <b>Abrasion Resistance</b>          | ~23 mg (CS10/1000/1000)  | (BS EN ISO 7784-2:2006) |
| <b>Resistance to Impact</b>         | IR > 4 Nm  | (EN 13813)              |
| <b>Indentation</b>                  | <0.1 mm  | (EN 433)                |
| <b>Tensile Adhesion Strength</b>    | B2.0   | (EN 13813)              |
| <b>Elongation at Break</b>          | +23 °C ~200 %<br>-23 °C ~100 %   | (EN ISO 527-3)          |
| <b>Crack Bridging Ability</b>       | Value 900 µ<br>Class A3  | (BS EN 1062-7)          |
| <b>Reaction to Fire</b>             | Cfl-s1   | (EN 13501)              |
| <b>Chemical Resistance</b>          | Sikafloor® MonoFlex MB-23 is resistant to many chemicals. Please refer to the chemical resistance of Sikafloor®-420. |                         |
| <b>Microbiological Resistance</b>   | Synthetic Urine (Uric acid)<br>No Change; No Change 0 (S)0   | (ISO 4628-2)            |
| <b>Permeability to Water Vapour</b> | Class III  | (EN 1062-6)             |
| <b>Capillary Absorption</b>         | w=0.004 kg (m <sup>2</sup> x h <sup>0.5</sup> )  | (EN 1062-3)             |
| <b>Permeability to CO2</b>          | Sd=61 m  | (EN 1062-6)             |

## APPLICATION INFORMATION

| Consumption   | Layer  | Product  | Consumption  |             |
|---|--|--|--|-------------|
|   | Primer   | Sikafloor®-161 or<br>Sika® Concrete Primer<br>Sika® Bonding Primer | ~0.5 kg/m <sup>2</sup> /layer or<br>~0.1 kg/m <sup>2</sup> /layer<br>~0.1 kg/m <sup>2</sup> /layer |             |
|   | Base Coat  | Sikafloor® -420 (+ Op-<br>tional Sika®-PU Acceler-<br>ator)        | ~0.8–1.3 kg/m <sup>2</sup> /layer  |             |
| Consumptions are theoretical and do not include any wastage or additional materials needed due to porosity, substrate profile etc.<br>Sika®-PU Accelerator can be added to Sikafloor®-420, one 60g sachet per 5 Litres of Sikafloor®-420. |  |  |  |             |
| Product Temperature   | +5 °C min. / +30 °C max.   |  |  |             |
| Ambient Air Temperature   | +5 °C min. / +30 °C max.   |  |  |             |
| Relative Air Humidity   | 35 % min. / 80 % max.  |  |  |             |
| Dew Point   | The substrate and uncured floor must be at least 3 °C above dew point to reduce the risk of condensation or other disturbance of the surface on the floor finish   |  |  |             |
| Substrate Temperature   | +5 °C min. / +30 °C max.   |  |  |             |
| Substrate Moisture Content  | Sikafloor® MonoFlex MB-23 can be installed on substrates with moisture content of max. 4 % (checked by Tramex). The substrate needs to be visibly dry and have adequate pull-off strength min 1.5 N/mm <sup>2</sup> . Check rising moisture. |  |  |             |
| Applied Product Ready for Use   | Temperature<br>(r.h. 50%)  | Rain resistant   | Foot traffic   | Full cure   |
|   | +10 °C   | ~15 hours  | ~1–2 days*   | ~7–14 days* |
|   | +20 °C   | ~5 hours   | ~24 hours*   | ~5–9 days*  |
|   | +30 °C   | ~3 hours   | ~18 hours*   | ~3–5 days*  |
| *Strongly influenced by layer thickness<br>Note: Times are approximate and will be affected by changing ambient conditions  |  |  |  |             |

## PRODUCT INFORMATION

|                    |  |
|--------------------|--|
| Packaging          | Please refer to the individual Product Data Sheets |
| Shelf Life         | Please refer to the individual Product Data Sheets |
| Storage Conditions | Please refer to the individual Product Data Sheets |

## MAINTENANCE

### CLEANING

Please refer to the Sikafloor® Cleaning Regime

### FURTHER DOCUMENTS

#### Substrate Quality & Preparation

Please refer to Sika Information Manual: "Evaluation and preparation of surfaces for flooring systems".

#### Application Instructions

Please refer to Sika Information Manual: "Mixing & Application of flooring systems".

### LIMITATIONS

- Do not apply Sikafloor® Monoflex systems on substrates with rising moisture.
- Freshly applied Sikafloor® Monoflex systems must be

protected from damp, condensation and water for at least 24 hours.

- Prior to overcoating with Sikafloor® Monoflex systems, the priming coats must have cured tack-free.
- Do not overcoat Sikafloor®-420 with Sikafloor®-410
- Do not use for interior applications.
- Always apply during falling temperatures. If applied during rising temperatures "pin holing" may occur from rising air.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Sikafloor® Monoflex systems in each area are applied from the same control batch numbers.
- Under certain conditions, under floor 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

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.

## 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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