

# PRODUCT DATA SHEET

## Sikafloor®-420

1-PART PUR HIGHLY ELASTIC COATING



### DESCRIPTION

Sikafloor®-420 is a one part, elastic, low solvent containing, low odour, UV resistant, coloured, moisture-triggered polyurethane resin coating.

### USES

Sikafloor®-420 may only be used by experienced professionals.

- Smooth or slip resistant, UV resistant, waterproof, abrasion resistant coating for concrete and cementitious screed substrates
- For light to medium mechanical exposure
- For balconies, terraces, footbridges, stairways etc.

### CHARACTERISTICS / ADVANTAGES

- Low odour formulation
- High solids
- Moisture-triggered
- Good UV and yellowing resistance
- Weather resistant
- Abrasion resistant with normal use
- Slip resistant surfaces are possible
- A range of finishes are available

### APPROVALS / STANDARDS

- Classification of reaction to fire performance in accordance with EN 13501-1:2007+A1:2009. Reaction to fire classification: Dfl-s1
- Synthetic resin screed material according to EN 13813:2002, Declaration of Performance 98311139, and provided with the CE-marking.
- Ignitability of building products subjected to direct impingement of flame. Part 2: Single flame source test. Passed.
- Odour concentration (EN 13725:2003), tested at Odournet GmbH in Germany.

### PRODUCT INFORMATION

<b>Chemical base</b>	Elastomeric Aliphatic Polyurethane
<b>Packaging</b>	5 litre (6.45 kilos), 15 litre (19.35 kilos) units
<b>Appearance / Colour</b>	Masterbatch: Coloured liquid. White. Tinted product: Coloured liquid. Broad colour range available.
<b>Shelf life</b>	12 months from date of production
<b>Storage conditions</b>	The packaging must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C.
<b>Density</b>	~1.29 kg/l <span style="float: right;">(DIN EN ISO 2811-11)</span>
<b>Solid content by weight</b>	~89.3 %
<b>Solid content by volume</b>	~85.9 %

## TECHNICAL INFORMATION

<b>Abrasion Resistance</b>	~23 mg (CS 10/1000 revolutions)	(BS EN ISO 7784-2:2006)
<b>Tensile Strength</b>	~5.0 MPa	(EN ISO 527-3)
<b>Elongation at Break</b>	At +23 °C: ~200 % At -23 °C: ~100 %	(EN ISO 527-3)
<b>Chemical Resistance</b>	Resistant to many chemicals. Please ask for a detailed chemical resistance chart. Attention: Wine, coffee, some leaves and flower petals etc. may cause surface discolouration. This will have no effect on the product performance and durability. Use a suitable Sikafloor® top coat for improved cleanability and resistance to contamination.	

## SYSTEMS

<b>Systems</b>	Please refer to the System Data Sheet of:	
	<b>Sikafloor® MonoFlex MB-23</b>	Smooth, unicolour, 1 part polyurethane, crack bridging floor finish
	<b>Sikafloor® MonoFlex MB-24</b>	Smooth, 1-component, crack-bridging, decorative floor covering
	<b>Sikafloor® MonoFlex MB-25</b>	Broadcast, 1-component polyurethane, crack bridging floor finish

## APPLICATION INFORMATION

<b>Consumption</b>	0.3–1.2 kg/m <sup>2</sup> /mm depending on the application. Please refer to the respective System Data Sheet.	
<b>Ambient Air Temperature</b>	+5 °C min. / +30 °C max. Lower temperature and humidity will prolong curing times. Ensure the floor is protected from foot traffic until adequately cured.	
<b>Relative Air Humidity</b>	80 % r.h. max. 35 % min. (below +20 °C: 45 % min.)	
<b>Dew Point</b>	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.	
<b>Substrate Temperature</b>	*+5°C min. / +30°C max. * Lower temperature and humidity will prolong curing times. Ensure the floor is protected from foot traffic until adequately cured.	
<b>Substrate Moisture Content</b>	<4% pbw moisture content. Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).	
<b>Pot Life</b>	The material in opened containers should be applied immediately. With open containers surface film formation will occur within 1–2 hours. High temperatures and high air humidity will accelerate curing significantly.	
<b>Curing time</b>	Before overcoating Sikafloor®-420 allow:	
	<b>Substrate temperature</b>	<b>Minimum</b>
	+10 °C	24 hours
	+20 °C	16 hours
	+30 °C	12 hours
		<b>Maximum</b>
		14 days
		14 days
		7 days
	Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. After thorough cleaning, Sikafloor®-420 can be overworked with itself at any time, assuming that all dirt has been removed and contamination is avoided.	

## Applied Product Ready for Use

Temperature (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

Note: Times are approximate and will be affected by changing ambient conditions

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

The surface must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by vacuum. Pull of strength shall not be less than 1.5 N/mm<sup>2</sup>. If in doubt apply a test area first.

### MIXING

Prior to use stir Sikafloor®-420 mechanically for 3 minutes. If required the Extender T should be added into the Sikafloor®-420 until a uniform mix has been achieved. Over mixing must be avoided to minimise air entrainment.

#### Mixing Tools:

Sikafloor®-420 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 humidity and dew point.

Sikafloor®-420 can be applied by brush, roller or squeegee. At higher coverage rates Sikafloor®-420 may be poured and spread evenly with a trowel.

### 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.

## 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".

### Maintenance

Please refer to "Sikafloor®- CLEANING REGIME".

## LIMITATIONS

- Do not apply Sikafloor®-420 on substrates with rising moisture.
- Freshly applied Sikafloor®-420 must be protected from damp, condensation and water for at least 24 hours.
- Prior to overcoating with Sikafloor®-420, 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®-420 in each area is 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.

## 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, the maximum allowed content of VOC (Product category IIA / i type sb) is 500 g/l (Limits 2010) for the ready to use product.

The maximum content of Sikafloor®-420 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.

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Sikafloor-420\_en\_GR\_(01-2017)\_1\_2.pdf

Product Data Sheet  
Sikafloor®-420  
January 2017, Version 01.02  
020812020020000026