

PRODUCT DATA SHEET

Sikafloor®-405

1-PART PUR HIGHLY ELASTIC COATING

PRODUCT DESCRIPTION

Sikafloor®-405 is a one part, pigmented, highly elastic, solvent containing, UV resistant, moisture triggered curing polyurethane resin coating

USES

Sikafloor®-405 may only be used by experienced professionals.

Sikafloor®-405 is used as:

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

CHARACTERISTICS / ADVANTAGES

- Moisture triggered
- Highly elastic
- Crack-bridging
- Waterproof
- Water vapour permeable
- UV resistant, non-yellowing
- Weather resistant
- Abrasion resistant with normal use

- Slip resistant
- Fast cure
- Excellent adhesion

APPROVALS / STANDARDS

- Coating for waterproofing according to the requirements of the ETAG-005, DoP 0208010301000000171148 / 1100000011148 / 1200000011148 / 1300000011148 certified by Factory Production Control Body, 0836 and provided with the CE-mark.
- European Technical Approval ETA-13/0231, Sikafloor®-405.
- BUtgb (ATG): no. 06/2660 (Belgium)
- Norisko CDC SEL Balcons (France)
- Determination of the resistance to fatigue movement according draft EOTA technical report no. 008, University de Liège,Belgium. Report no. LMC/07/148

PRODUCT INFORMATION

Chemical Base	Polyurethane
Packaging	5 litres (6.5 kg) , 15 litres (19.5 kg)
Appearance / Colour	Coloured liquid RAL 1015, RAL 7015, RAL 7032, RAL 7035, RAL 7042
Shelf Life	6 months from date of production.
Storage Conditions	The packaging must be stored in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between 0°C and +25°C.

Density	1.30 kg/l Density value at +23°C.	(EN ISO 2811-1)
Solid content by weight	~ 79%	(EN ISO 3251)
Solid content by volume	~ 71%	(EN ISO 3251)

TECHNICAL INFORMATION

Tensile Strength	Unreinforced film	~10 N/mm ²	(EN DIN 527-1/EN ISO 527-3)
	Reemat Premium*	~17 N/mm ²	
* As part of the Sikafloor® Balcony 10 / 15 / 20 Systems			
Elongation at Break	Unreinforced film	~570 %	(EN DIN 527-1/EN ISO 527-3)
	Reemat Premium*	~30 %	
* As part of the Sikafloor® Balcony 10 / 15 / 20 Systems			
Chemical Resistance	Resistant to many chemicals. Please contact Sika technical service.		

SYSTEM INFORMATION

Systems	Sikafloor® Balcony 10	Broadcast, 1-component, fast curing, crack bridging and waterproofing, unicolour floor covering
	Sikafloor® Balcony 15	Broadcast, 1-component, fast curing, crack bridging and waterproofing, unicolour floor covering
	Sikafloor® Balcony 20	Broadcast, 1-component, fast curing, crack bridging and waterproofing, buried floor covering

APPLICATION INFORMATION

Consumption	Sika Balcony 10 System:		
	Primer	Sika® Concrete Primer	0.1 L/m ²
		or	0.125 L/m ²
	Waterproofing Layer	Sika® Bonding Primer	
		Sikafloor®-405	1.1 L/m ²
	Top Coat	Sika® Reemat Premium	
		Sikafloor®-405	0.5 L/m ²
		Quartz Sand Broadcast	0.25 kg/m ²
	Sika Balcony 15 System:		
	Primer	Sika® Concrete Primer	0.1 L/m ²
		or	0.125 L/m ²
	Waterproofing Layer	Sika® Bonding Primer	
Sikafloor®-405		1.1 L/m ²	
Top Coat	Sika® Reemat Premium		
	Sikafloor®-405	0.5 L/m ²	
	Quartz Sand Broadcast	3.5 kg/m ²	
Finish	Sikafloor®-420	0.25 L/m ²	
	Sikafloor®-420	0.25 L/m ²	
Sika Balcony 20 System:			
Primer	Sika® Concrete Primer	0.1 L/m ²	
	or	0.125 L/m ²	
Waterproofing Layer	Sika® Bonding Primer		
	Sikafloor®-405	1.1 L/m ²	
Finish	Sika® Reemat Premium		
	Sikafloor®-405	1.0 L/m ²	
Finish	Tiles, Pavers or Screed		

Ambient Air Temperature	+2°C min. / +30°C max.
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Relative Air Humidity	80% r.h. max. 35% min. (below +20°C: 45% min.)		
Dew Point	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.		
Substrate Temperature	+2°C min. / +30°C max. Frozen substrates must defrost for 24 hours.		
Substrate Moisture Content	Visible damp free (maximum 18% wood moisture equivalent). < 6% pbw moisture content Test method: Sika®-Tramex meter, < 4% CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene sheet).		
Pot Life	The material in opened containers should be applied immediately. With open containers surface film formation will happen within approx. 24 hours. High temperatures and high air humidity will accelerate curing significantly.		
Curing Time	Before overcoating Sikafloor®-405 allow:		
	Substrate temperature	Minimum	Maximum
	+10°C	24 hours	7 days
	+20°C	18 hours	7 days
	+30°C	12 hours	7 days
	Application should take place within 7 days, further delays will require re-priming with Sika® Reactivation Primer, assuming that all dirt has been removed and contamination is avoided. Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.		
Applied Product Ready for Use	Temperature	Surface dry	Through dry
	+20°C / r.h. 50%	~ 6 hours	~ 10 hours
	+2°C	~ 12 hours	~ 20 hours
			Hard by
			~ 18 hours
			~ 30 hours
	Note: Times are approximate and will be affected by changing ambient conditions and the layer thickness.		

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/mm². If in doubt apply a test area first.

MIXING

Slightly stir Sikafloor®-405 mechanically before using.

Mixing Tools:

Sikafloor®-405 must be 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. As a primer the product can be applied by brush or medium pile nylon roller and as a coating by long pile roller.

CLEANING OF TOOLS

Clean all tools and application equipment with Thin-

ner C immediately after use. Hardened and/or cured material can only be removed mechanically.

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".

Maintenance

Please refer to "Sikafloor®- CLEANING REGIME".

LIMITATIONS

Prior to overcoating with Sikafloor®-405, the priming coats must have cured tackfree. Do not use for interior applications. Always apply during falling temperatures. If applied during rising temperatures "pin holing" may occur from rising air. If this is not possible and the substrate seems to be outgassing the use of Sika® Concrete Primer is necessary. In this case the Sika® Concrete Primer replaces the Sika® Bonding Primer. Please refer to the Product Data Sheet of Sika® Concrete Primer.

The incorrect assessment and treatment of cracks may

lead to a reduced service life and reflective cracking. For exact colour matching, ensure the Sikafloor®-405 in each area is applied from the same control batch numbers. If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O 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.

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 / i type sb) is 500 g/l (Limit 2010) for the ready to use product.

The maximum content of Sikafloor® 405 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.

SIKA LIMITED

Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited

SIKA IRELAND LIMITED

Ballymun Industrial Estate
Ballymun
Dublin 11, Ireland
Tel: +353 1 862 0709
Web: www.sika.ie
Twitter: @SikaIreland



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