

PRODUCT DATA SHEET

Sikafloor®-420

1-part highly elastic polyurethane coating

DESCRIPTION

Sikafloor®-420 is a 1-part, elastic, polyurethane resin coating, containing low amounts of solvent.

USES

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

The Product is used as a:

- Waterproof coating on concrete and cementitious screeds substrates

CHARACTERISTICS / ADVANTAGES

- iCure® based technology
- Moisture-activated curing
- Good crack-bridging ability
- Low odour
- High solid content
- High UV stability
- Good resistance to abrasion
- High slip resistance
- Good resistance to weathering
- High yellowing resistance

SUSTAINABILITY

- 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

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 1504-2:2004 — Products and systems for the repair and protection of concrete structures — Part 2: Surface protection systems for concrete — Coating
- CE Marking and Declaration of Performance to EN 13813:2002 — Screed material and floor screeds — Synthetic resin screed material
- Reaction to Fire Performance Classification EN 13501-1, Sikafloor®-420, Exova, Test report No. 355210
- Reaction to fire classification EN 13501-1, Exova Warringtonfire, Report No. WF 355210
- Low Odour Waterproofing Resin Sensory testing EN 13725, Sikafloor®-420, Odournet, Test report No. SIK15A_Sikafloor420_01
- Odour Comparison of Two Exterior Grade Flooring EN 13725, Sikafloor®-420 / -425, Odournet, Test report No. 456-2014-00
- Slip resistance DIN 51130, Sikafloor® MonoFlex MB-58 LO, LUCIDEON, Certificate No. UK203532-26412

PRODUCT INFORMATION

Composition	Elastomeric aliphatic polyurethane		
Packaging	6.5 kg (5 L) container 19.5 kg (15.1 L) container Refer to current price list for packaging variations		
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. Always refer to packaging. Refer to current Safety Data Sheet for information on safe handling and storage.		
Appearance and colour	Master batch	Coloured liquid, white	
	Tinted product	Coloured liquid	
	Available in a wide range of colours. Please contact Sika customer service for availability.		
Density	Mixed Product	~1.29 kg/l	(EN ISO 2811-1)
Solid content by mass	~89.3 %		
Solid content by volume	~85.9 %		

TECHNICAL INFORMATION

Tensile strain at break	Cured 7 days at +23 °C, tested at +23 °C	~200 %	(EN ISO 527-3)
	Cured 7 days at +23 °C, tested at -20 °C	~100 %	
Chemical resistance	Laboratory defined resistance to many individual chemicals. Before proceeding contact Sika Technical Services for specific information. Note: Wine, coffee, certain leaves, flower petals and similar organic materials. may cause surface discolouration. This will have no effect on the product performance and durability.		

APPLICATION INFORMATION

Consumption	~0.3–1.3 kg/m ² Note: These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.		
Layer thickness	Refer to the relevant System Data Sheet		
Material temperature	Minimum	+5 °C	
	Maximum	+30 °C	
Ambient air temperature	Minimum	+5 °C	
	Maximum	+30 °C	
Relative air humidity	Maximum	80 %	
	Minimum	35 %	

Dew point	Beware of condensation. The substrate and uncured applied floor material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.			
Substrate temperature	Minimum	+5 °C		
	Maximum	+30° C		
Substrate moisture content	Cementitious substrates	Sika® Tramex moisture metre	≤ 4 %	
	Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %	
	No rising moisture (ASTM D4263, polyethylene sheet)			
Pot Life	As soon as the container is opened, surface film formation will happen within 1–2 hours. High temperatures and high air humidity will accelerate curing significantly.			
Waiting time to overcoating	Note: Times are given at 50 % r.h.. Times in brackets are with the use of Sika® PU Accelerator.			
	Substrate temperature	Minimum	Maximum	
	+10 °C	~24 hours (6 hours)	~14 days (14 days)	
	+20 °C	~16 hours (4 hours)	~14 days (7 days)	
	+30 °C	~12 hours (2 hours)	~7 days (7 days)	
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.				
Applied product ready for use	Note: Times are given at 50 % r.h.. Times in brackets are with the use of Sika® PU Accelerator			
	Temperature	Rain resistant	Foot traffic	Full cure
	+10 °C	~15 hours (2 hours)	~24–48 hours (4 hours)	~7–14 days (24 hours)
	+20 °C	~5 hours (1 hour)	~24 hours (3 hours)	~5–9 days (16 hours)
	+30 °C	~3 hours (30 mins)	~18 hours (2 hours)	~3–5 days (12 hours)
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.				

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.

FURTHER INFORMATION

- Sika® Method Statement: Evaluation and preparation of surfaces for flooring systems
- Sika® Method Statement: Mixing and application of flooring systems
- Sikafloor® cleaning concept

IMPORTANT CONSIDERATIONS

IMPORTANT

Incompatibility

Do not overcoat the product with Sikafloor®-410 or Sikafloor®-416 MAT.

ECOLOGY, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-388

APPLICATION INSTRUCTIONS

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

EQUIPMENT

MIXING EQUIPMENT APPLICATION EQUIPMENT

- Brush
- Short pile roller
- Squeegee

SUBSTRATE QUALITY / PRE-TREATMENT

SUBSTRATE CONDITION

Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².

Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

TREATMENT OF JOINTS AND CRACKS

Construction joints and existing static surface cracks in substrate require pre-treating before full layer application. Use Sikadur® or Sikafloor® resins.

MIXING

IMPORTANT

Avoid over-mixing to minimise air entrainment.

1. Before application, mix for at least 2 minutes or until the liquid and all the coloured pigment have achieved a uniform colour.
2. (Optional) If necessary, gradually add between 0.5 % and 1.5 % by weight of flooring resin of Sika® Extender T.

APPLICATION

IMPORTANT

No application on rising moisture

Do not apply on substrates with rising moisture.

IMPORTANT

Protect from moisture

After application, protect the Product from damp, condensation and direct water contact for at least 24 hours.

IMPORTANT

Temporary heating

If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish.

a) For heating, use only electric powered warm air blower systems.

IMPORTANT

Pin holes

If applied on porous substrates during rising temperatures pin holes may occur from rising air.

1. Apply during falling temperatures.

IMPORTANT

Ensuring consistent colour matching

For consistent colour matching, make sure the Product in each area is applied from the same control batch numbers.

IMPORTANT

Primer must be tack-free

Make sure the primer is tack-free before applying the product.

SMOOTH COATING

1. Pour the Product onto the surface.
2. Apply the Product in two directions at right angles with a short-pile roller, brush, or squeegee. A seamless finish can be achieved if a "wet" edge is maintained during application.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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