

SikaHyflex[®]-905

High-performance ultra-low modulus weather-proofing sealant for facades

Product Description / Uses SikaHyflex-905 is a one part, moisture curing, ultra-low modulus elastic joint sealant suitable for movement and connection joints in building envelopes with excellent adhesion to porous and non-porous substrates.

Characteristics / Advantages

- Very good resistance to weathering
- Non-staining
- Movement capability of $\pm 100/-50\%$
- Low stress to the substrate
- Very good workability
- Very good adhesion to a wide range of substrates
- Very low emissions
- Solvent free

Approvals / Standards

Conforms to EN 15651-1 F EXT-INT CC 25 LM
Conforms to EN 15651-2 G CC 25 LM
Conforms to ASTM C920, class 100/50
Conforms to ISO 11600 F 25 LM
Conforms to ISO 11600 G 25 LM
Conforms to DIN 18540 F
ISO 16938-1 non staining on marble
ASTM C 1248 non staining on marble

Specific Ratings	LEED [®] EQc 4.1	SCAQMD, Rule 1168	BAAQMD, Reg. 8, Rule 51
	passes	passes	passes

Product Data

Colours white, black, concrete grey, beige. Further colours available upon request

Packaging 600 ml foil pack, 20 foil packs per box

Storage Conditions / Shelf-Life 12 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +5°C and +25°C.

Technical Data

Chemical Base Neutral cure silicone

Density 1.16 kg/l approx. (CQP¹) 006-4, ISO 1183-1)

Sag Flow 0 mm approx. (20 mm profile, 50°C) (CQP 061-4, ISO 7390)

Skin Time 30 minutes approx.²⁾ (CQP 019-1)

Tooling Time 25 minutes approx.²⁾ (CQP 019-2)



Curing Rate	3 mm/24 h approx. ²⁾	(CQP 49-2)
Movement Capability	±25% +100/-50%	(ISO 9047) (ASTM C 719)
Shore A Hardness	18 after 28 days approx. ²⁾	(CQP 023-1, ISO 868)
Tear Propagation Resistance	6.5 N/mm approx. ²⁾	(CQP 045-1, ISO 34)
Secant Tensile Modulus	0.3 N/mm ² approx. at 100% elongation ^{2), 3)} 0.45 N/mm ² approx. at 100% elongation (-20°C) ³⁾	(CQP 020-1, ISO 8339)
Elongation at Break	750% approx. ²⁾	(CQP 036-1, ISO 37)
Elastic Recovery	> 80% ^{2), 3)}	(ISO 7389)
Application Temperature	+5°C to +40°C, min. 3°C above dew point temperature	
Service Temperature	-40°C to +150°C	

¹⁾ Sika Corporate Quality Procedure

²⁾ 23°C / 50% r.h.

³⁾ conditioning: Method B

Application Details

Joint Design/ Consumption

The joint width must be designed to suit the movement capability of the sealant. In general the joint width should be > 10 mm and < 40 mm. A width to depth ratio of approx. 2:1 must be maintained. Joints deeper than 15 mm must be avoided.

Standard joint widths for joints between concrete elements with $\Delta T^* = 80\text{ }^\circ\text{C}$

Joint distance [m]	2	4	6	8	10
Min. joint width [mm]	10	15	20	28	35
Min. joint depth [mm]	10	10	10	14	15

* ΔT is considered to be the difference between the highest expected temperature in use (or lowest, check which case leads to higher ΔT) and the application temperature.

All joints must be properly designed and dimensioned in accordance with the relevant standards, before construction. Basis for calculation of the necessary joint width are the technical values of the joint sealant and the adjacent building materials, as well as the exposure of the building, type of construction and its dimensions.

Approximate consumption

Joint width [mm]	10	15	20	25	30
Joint depth [mm]	10	10	10	12	15
Joint length / 600 ml [m]	6	4	3	2	1.3

Backing: Use closed cell, polyethylene foam backing rods.

Substrate Preparation / Priming	<p>SikaHyflex-905 generally has strong adhesion without primers/activators to most clean, sound substrates. For optimum adhesion and critical, high performance applications such as multi story building work, high stress bonding joints, extreme weather exposure or water immersion the following procedure shall be followed:</p> <p><u>Non porous substrates</u> Aluminium, anodised aluminium, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated with Sika Activator-205 by using a clean, dry rag. Before sealing allow a flash-off time >15 min (max.6 hours). Metals like copper, brass, titanium-zinc etc. have to be cleaned and pre-treated with Sika Activator-205 by using a clean towel. After a flash-off time >15 minutes, apply Sika Primer-3 N by using a brush and allow a flash-off time > 30 minutes (max. 8 hours) before sealing.</p> <p><u>Porous substrates</u> Concrete, aerated concrete and cementitious plasters, mortars, brick, etc. have to be primed with Sika Primer-3 N by using a brush. Before sealing allow a flash-off time >30 minutes (max. 8 hours).</p> <p>For detailed instructions consult the Product Data Sheet for pre-treatments or contact our Technical Service Department. Primers are adhesion promoters. They neither substitute the correct cleaning of the surface nor improve their strength significantly.</p>
Application Method / Tools	<p>SikaHyflex-905 is supplied ready to use.</p> <p>After suitable substrate preparation, insert backing rod to the required depth and apply primer if necessary. Insert foil pack into sealant gun and firmly extrude SikaHyflex-905 into joint making sure that it is in full contact with the sides of the joint and avoid air entrapment. SikaHyflex-905 must be tooled firmly against joint sides to ensure good adhesion.</p> <p>Masking tape may be used where exact joint lines or exceptionally neat lines are required. Remove the tape within the skin time. Use a compatible tooling agent (e.g. Sika Tooling Agent N) to smooth the joint surfaces. Do not use solvent containing products!</p>
Cleaning of Tools	<p>Clean all tools and application equipment with Sika Remover-208 immediately after use. Once cured the material can only be removed mechanically.</p>
Further Documents available	<ul style="list-style-type: none"> ■ Safety Data Sheet (SDS) ■ Sika Primers Data Sheet ■ Method Statement Joint Sealing ■ Method Statement Joint Maintenance, Cleaning and Renovation
Notes on Application / Limitations	<p>SikaHyflex-905 cannot be over painted.</p> <p>Colour deviations may occur due to exposure to chemicals, high temperatures, UV-radiation (especially with colour shade white). However a change in colour will not adversely influence the technical performance or the durability of the product.</p> <p>Before using on natural stone carry out compatibility tests.</p> <p>Do not use SikaHyflex-905 on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticisers or solvents which could attack the sealant. Do not use SikaHyflex-905 to seal swimming pools. SikaHyflex-905 is not suitable for joints with water pressure or permanent water immersion.</p>
Value Base	<p>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.</p>
Health and Safety Information	<p>For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.</p>

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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