BUILDING TRUST

PRODUCT DATA SHEET

SikaHyflex®-305 EU

WEATHER SEALANT FOR CURTAIN WALL AND METAL CLADDING FACADES

PRODUCT DESCRIPTION

SikaHyflex®-305 EU is a 1-component, moisture curing, low-modulus elastic weather sealant.

USES

SikaHyflex®-305 EU is designed for weather proofing and sealing applications where durability under severe conditions is required. SikaHyflex®-305 EU is particularly suited for use as a weather sealant for curtain wall and metal cladding facades.

CHARACTERISTICS / ADVANTAGES

- Very good weathering resistance
- Movement capability of ±50 % (ASTM C 719)
- Very good workability
- Good adhesion to a wide range of substrates
- Solvent-free
- Neutral cure

ENVIRONMENTAL INFORMATION

- EMICODE EC1 PLUS R
- LEED v4 EQc 2: Low-Emitting Materials

APPROVALS / STANDARDS

- EN 15651-1 F EXT-INT CC 25 LM
- EN 15651-2 G CC 25 LM
- ASTM C 920, class 50
- ISO 11600 F 25 LM & G 25 LM
- DIN 18540 F

PRODUCT INFORMATION

Chemical Base	Neutral cure silicone	
Packaging	300 ml catridge, 25 cartridges per box 400 ml foil pack, 20 foil packs per box 600 ml foil pack, 20 foil packs per box	
Colour	Colour range to be defined by local sales organization.	
Shelf Life	SikaHyflex®-305 EU has a shelf life of 12 months for cartridges and 15 months for foil packs from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met.	
Storage Conditions	SikaHyflex®-305 EU shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.	
Density	~ 1.50 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	~ 25 (after 28 days)	(ISO 868)
Secant Tensile Modulus	~ 0.35 N/mm² at 100% elongation (23 °C) ~ 0.40 N/mm² at 100% elongation (−20 °C)	(ISO 8339)
Elongation at Break	~ 900%	(ISO 37)
Elastic Recovery	~ 80%	(ISO 7389)
Tear Propagation Resistance	~ 4.0 N/mm	(ISO 34)
Movement Capability	± 25% ± 50%	(ISO 9047) (ASTM C 719)
Resistance to Weathering	10	(ISO / DIS 19862)
Service Temperature	−40 °C to +150 °C	

Joint Design

The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 6 mm and ≤ 45 mm. The joint depth shall be ≥ 6 mm and ≤ 15 mm. A width to depth ratio of 2:1 must be maintained (for exceptions, see table below).

Typical joint dimensions

Joint Width [mm]	Joint Depth [mm]
10	6
15	8
20	10
30	15
45	15

All joints must be correctly designed and dimensioned in accordance with the relevant standards, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints.
For larger joints please contact Sika technical service.

Compatibility

SikaHyflex®-305 EU is compatible with most SikaHyflex® and Sikasil® silicone weather sealants, Sikasil® SG adhesives and Sikasil® IG sealants. All other sealants and adhesives have to be approved by Sika before using them in direct contact with SikaHyflex®-305 EU.
Where two or more different reactive sealants and/or adhesives are used, allow the first one to cure completely before applying the next one. For specific information regarding compatibility contact Sika technical service.

APPLICATION INFORMATION

Consumption

Joint length [m] per 600 ml foil pack	Joint width [mm]	Joint depth [mm]
10	10	6
5	15	8
3	20	10
2	25	12
1.3	30	15

Backing Material	Use closed cell, polyethylene foam backing rods.	
Sag Flow	~ 0 mm (20 mm profile, 50 °C)	(ISO 7390)
Ambient Air Temperature	+5 °C to +40 °C, min. 3 °C above dew point temperature	
Substrate Temperature	+5 °C to +40 °C	

Curing Rate	~ 2 mm/24 hours (23 °C / 50% r.h.)	(CQP 049-2)
Skin Time	~ 25 minutes (23 °C / 50% r.h.)	(CQP 019-1)
Tack Free Time	~ 180 minutes (23 °C / 50% r.h.)	(CQP 019-1)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. The following priming and/or pre-treatment procedures shall be followed:

Non-porous substrates
Float glass, coated glass, anodised aluminium and stainless steel have to be pre-treated using Sika® Aktivator-205, Sika® Aktivator-100 or Sika® Cleaner P. Powder coated and PVDF coated metals have to be pre-treated using Sika® Aktivator-205. For details like application and flash-off times refer to the most recent PDS of the respective pre-treatment product.

Porous substrates
Concrete, aerated concrete and cement based renders, mortars and bricks shall be primed using Sika® Primer-3 N or Sika® Primer-210. For details like application and flash-off times refer to the most recent PDS of the respective pre-treatment product.

Adhesion tests on project specific substrates must be preformed prior to application. For more detailed advice and instructions please contact Sika technical service. Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

APPLICATION METHOD / TOOLS

SikaHyflex®-305 EU is supplied ready to use.
After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply pre-treatment if necessary. Insert a foil pack or cartridge into the sealant gun and extrude SikaHyflex®-305 EU into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. SikaHyflex®-305 EU sealant must be firmly tooled against the joint sides to ensure adequate adhesion.
It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Cleaning Wipes-100. Once cured, residual material can only be removed mechanically.

FURTHER DOCUMENTS

- Safety Data Sheet (SDS)
- Pre-treatment Chart Sealing & Bonding
- General Guidelines SikaHyflex and Sikasil Weather Sealants

LIMITATIONS

- SikaHyflex®-305 EU cannot be overpainted.
- Colour variations may occur due to exposure to chemicals or other extreme external influences. However, a change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Do not use SikaHyflex®-305 EU on natural stone.
- Do not use SikaHyflex®-305 EU on bituminous substrates, natural rubber or any building materials which might bleed oils, plasticizers or solvents that could attack the sealant. EPDM or other gaskets in direct contact withSikaHyflex®-305 EU have to be tested for compatibility prior to application. For specific advice contact Sika technical service.
- Do not use SikaHyflex®-305 EU on pre-stressed polyacrylate and polycarbonate as it may cause environmental stress cracking (crazing).
- Do not use SikaHyflex®-305 EU to seal joints in and around swimming pools.
- Do not use SikaHyflex®-305 EU for joints under water pressure or for permanent water immersion.
- Do not expose uncured SikaHyflex®-305 EU to alcohol containing products as this may interfere with the curing reaction.

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation

for more information.

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