

# PRODUCT DATA SHEET

## SikaHyflex®-355

HIGH PERFORMANCE NON-STAINING SEALANT FOR NATURAL STONE



### DESCRIPTION

SikaHyflex®-355 is a silicone, non-staining, low-modulus sealant for natural stone

### USES

- Non-staining and non-streaking joint sealing of natural stone and metal cladding facades
- For Interior and exterior use

### CHARACTERISTICS / ADVANTAGES

- Non-staining
- Non-streaking
- Low-modulus
- Neutral cure
- Very good weathering resistance
- Movement capability of  $\pm 35\%$  (ASTM C 719)
- Compatible with a range of substrates
- Very good workability
- Moisture curing
- Low stress on joint edges
- Low VOC emissions
- Available in many colours

### SUSTAINABILITY

- IBU Environmental Product Declaration (EPD)

### APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints - Facade elements - F EXT-INT CC
- CE Marking and Declaration of Performance to EN 15651-2 - Sealants for non-structural use in joints - Glazing elements - G CC
- ASTM C920-14 Class 35, SikaHyflex-355, MST, Report No 0316920-SIKA
- Determination of Staining, ASTM C1248-08, SikaHyflex®-355, SKZ, Report, No 119327/16-I
- Determination of Staining, ISO 16938-1, SikaHyflex®-355, SKZ, Report, No 119327/16
- ISO 11600-F 25LM, SikaHyflex®-355, Kiwa, Report, No P 8580-2a1-E

### PRODUCT INFORMATION

<b>Composition</b>	Silicone	
<b>Packaging</b>	600 ml cylindrical foil pack	20 foil packs per box
	400 ml cylindrical foil pack	20 foil packs per box
	Refer to current price list for packaging variations	
<b>Colour</b>	Grey	
<b>Shelf life</b>	12 months from date of production	
<b>Storage conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	

Density	~1,45 kg/l	(ISO 1183-1)
Product Declaration	EN 15651-1: F EXT-INT CC EN 15651-2: G CC ISO 11600-F: 25 LM ASTM C920: Type S, Grade NS, Class 35, Use NT and M	

## TECHNICAL INFORMATION

Shore A Hardness	~25 (after 28 days)	(ISO 868)
Secant Tensile Modulus	~0,40 N/mm <sup>2</sup> at 100 % elongation (23 °C) ~0,50 N/mm <sup>2</sup> at 100 % elongation (-20 °C)	(ISO 8339)
Elongation at Break	~800 %	(ISO 37)
Elastic Recovery	~85 %	(ISO 7389)
Tear Propagation Resistance	~4,0 N/mm	(ISO 34)
Movement Capability	± 25 % ± 35 %	(ISO 9047) (ASTM C 719)
Resistance to Weathering	10	(ISO / DIS 19862)
Service Temperature	-40 °C to +150 °C	

### Joint Design

The joint dimensions must be designed to suit the movement capability of the sealant. The joint width must be a minimum of 6 mm and a maximum of 35 mm. The joint depth must be a minimum of 6 mm and a maximum of 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 and codes of practice before their construction. The basis for calculation of the necessary joint widths are the type of structure, dimensions, technical values of the adjacent building materials, joint sealing material and the specific exposure of the building and the joints.

For larger joints contact Sika® Technical Services for additional information.

## SYSTEMS

### Compatibility

Compatible with the following substrates:

#### Non-porous substrates

Aluminium, anodised aluminium, stainless steel, copper, brass, titanium-zinc, PVC, galvanised steel, powder and PVDF coated metals, glazed tiles, glass

#### Porous substrates

Concrete, aerated concrete, fibre cement, brick, cement based renders and mortars, plasterboard, wood, natural stone

For other types of substrates, contact Sika Technical Services for additional information.

#### Other sealants

SikaHyflex®-355 is compatible with most SikaHyflex® and Sikasil® silicone sealants. All other sealants and adhesives must be approved by Sika before

using in direct contact with SikaHyflex®-355.

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 Services for additional information.

## APPLICATION INFORMATION

Consumption	Joint width [mm]	Joint depth [mm]	Joint length [m] per 600 ml foil pack
	10	6	10
	15	8	5
	20	10	3
	25	12	2
	30	15	1,3

**Consumption calculation formula**  
Length of joint [m] = 280 ml / (Joint width [mm] × Joint depth [mm])  
Litres / Metre run of joint = (Joint width [mm] × joint depth [mm]) / 1000  
[m × mm<sup>2</sup> / l]  
Consumption depends on the roughness and absorbency of the substrate. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

<b>Backing Material</b>	Use closed cell, polyethylene foam backing rod		
<b>Sag Flow</b>	~2 mm (20 mm profile, 50 °C)		(ISO 7390)
<b>Ambient Air Temperature</b>	+5 °C to +40 °C, min. 3 °C above dew point temperature		
<b>Substrate Temperature</b>	+5 °C to +40 °C		
<b>Curing Rate</b>	~2 mm/24 hours (+23 °C / 50 % r.h.)		(CQP* 049-2) * Sika Corporate Quality Procedure
<b>Skimming time</b>	~20 minutes (23 °C / 50 % r.h.)		(CQP 019-1)

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the sealant. The substrate must be of sufficient strength to resist the stresses induced by the sealant during movement.

Removal techniques such as wire brushing, grinding, grit blasting or other suitable mechanical tools can be used.

Repair all damaged joint edges with suitable Sika repair products

New or refurbished joints must be saw-cut.

Where joints in substrate are saw cut. After sawing, all slurry material, must be flushed away and joint surfaces allowed to dry.

All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or sealant.

SikaHyflex®-355 adheres without primers and/or activators.

For optimum adhesion and joint durability, the following substrate priming (and/or pre-treatment) procedures must be followed:

For optimum adhesion, joint durability and critical, high performance applications such as joints on multi-storey buildings, highly stressed joints, extreme weather exposure or water immersion / exposure. The following priming and/or pre-treatment procedures must be followed:

Prime with Sika® Primer-206 G+P or Sika® Primer-115 by using a clean brush or roller. Before sealing, allow a waiting time of > 30 minutes (< 8 hours).

#### Non-porous substrates

Aluminium, anodised aluminium, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles. Lightly roughen surface with a fine abrasive pad. Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.

Before sealing, allow a waiting time of > 15 minutes (< 6 hours).

Other metals, such as copper, brass and titanium-zinc, clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours). Glass must be cleaned with Isopropanol before application.

Float glass, coated glass, anodised aluminium and stainless steel must be pre-treated using Sika® Aktivat-

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or-205, Sika® Aktivator-100 or Sika® Cleaner P. Powder coated and PVDF coated metals must be pre-treated using Sika® Aktivator-205. For more details such as application and flash-off times, refer to the most recent Product Data Sheet of the respective pre-treatment product.

#### **Porous substrates**

Concrete, aerated concrete and cement based renders, mortars and bricks surfaces must be primed using Sika® Primer-3 N or Sika® Primer-210 applied by brush.

Before sealing, allow a waiting time of > 30 minutes (< 8 hours).

Adhesion tests on project specific substrates must be performed and procedures agreed with all parties before full project application.

Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation / cleaning of the joint surface. Primers also improve the long term adhesion performance of the sealed joint. Contact Sika® Technical Services for additional information.

#### **MIXING**

1-part ready to use

#### **APPLICATION METHOD / TOOLS**

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

#### **Masking**

It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skinning time after finishing.

#### **Joint Backing**

After the required substrate preparation, insert a suitable backing rod to the required depth.

#### **Priming**

If required, prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.

#### **Application**

SikaHyflex®-355 is supplied ready to use.

Prepare the end of the foil pack or cartridge, insert into the sealant gun and fit the nozzle. Extrude SikaHyflex®-355 into the joint ensuring that it comes into full contact with the sides of the joint and avoiding any air entrapment.

#### **Finishing**

As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish.

Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surface. Water can be used. Do not use tooling products containing solvents.

#### **CLEANING OF EQUIPMENT**

Clean all tools and application equipment with Sika® Remover-208 immediately after use. Hardened mater-

ial can only be removed mechanically. For cleaning skin use Sika® Cleaning Wipes-100.

#### **FURTHER INFORMATION**

- Sika Pre-treatment Sealing and Bonding Chart
- Sika Method Statement: Joint Maintenance, Cleaning and Renovation
- Sika Technical Manual: Facade Sealing
- General Guidelines: SikaHyflex and Sikasil Weather Sealants

#### **IMPORTANT CONSIDERATIONS**

- Cannot be overpainted.
- Colour variations may occur due to the exposure in service to chemicals, high temperatures and / or UV-radiation (especially with white colour shade). This effect is aesthetic and does not adversely influence the technical performance or durability of the product.
- Before using SikaHyflex®-355 on natural stone, refer to Sika Technical Services for advice.
- Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticisers or solvents that could degrade the sealant.
- Do not use on pre-stressed polyacrylate and polycarbonate as it may cause environmental stress cracking (crazing).
- Do not use to seal joints in and around swimming pools.
- Do not use for joints under water pressure or permanent water immersion.
- Do not expose uncured SikaHyflex®-355 to alcohol containing products as this may interfere with the curing reaction.

#### **BASIS OF PRODUCT DATA**

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**

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.

#### **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 cur-

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rent 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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