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# PRODUCT DATA SHEET SikaHyflex<sup>®</sup>-140 Construction

#### Joint sealant for facade sealing

#### DESCRIPTION

SikaHyflex<sup>®</sup>-140 Construction is a 1-component, moisture-curing, elastic joint sealant.

#### USES

SikaHyflex<sup>®</sup>-140 Construction is designed for movement and connection joints in concrete facades as well as other construction sealing applications.

## **CHARACTERISTICS / ADVANTAGES**

- Movement capability of ±25 % (ASTM C 719)
- Bubble-free curing
- Good workability
- Good adhesion to many substrates

# **PRODUCT INFORMATION**

#### **SUSTAINABILITY**

- EMICODE EC1 PLUS R
- LEED v2009 IEQc 4.1: Low-Emitting Materials Adhesives and Sealants

## **APPROVALS / CERTIFICATES**

• ASTM C 920, class 25

Composition	i-Cure <sup>®</sup> Technology polyurethane	i-Cure <sup>®</sup> Technology polyurethane		
Packaging	600 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®-140 Construction has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met. SikaHyflex®-140 Construction shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.			
Storage conditions				
Density	~1,45 kg/l	(ISO 1183-1)		

#### **TECHNICAL INFORMATION**

Shore A hardness	~36 (after 28 days)	(ISO 868) (ISO 8339)	
Secant tensile modulus	~0.30 N/mm <sup>2</sup> at 60% elongation (23 °C)		
Tensile strain at break	~800 %	(ISO 37)	

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Elastic recovery	~70 %		(ISO 7389)	
Tear propagation resistance	~6,0 N/mm	~6,0 N/mm (ISO		
Movement capability	± 25 %	± 25 % (ASTM C 71		
Service temperature	–40 °C min. / +70 °C max.			
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 $\ge 10$ mm and $\le 35$ mm. A width to depth ratio of 2:1 must be maintained (for exceptions, see table below).			
	-	for joints between concret		
	Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]	
	2	10	10	
	4	15	10	
	6	20	10	
	8	30	15	
	10	35	17	
	All joints must be properly designed and dimensioned in accordance with the relevant standards, before construction. Basis for calculation of the ne- cessary joint width are the technical values of the joint sealant and the ad- jacent building materials, as well as the exposure of the building, type of construction and its dimensions.			
	For larger joints please contact Sika Technical Service.			

Consumption	Joint width [mm] 10 15 20 25 30	Joint depth [mm] 10 10 10 10 12 15	Joint length [m] per 600 ml foil pack 6 4 3 2 1.3					
				Backing material	Use closed cell, polyethylene foam backing rods.			
				Sag flow	~2 mm (20 mm profile, 50 °C) (ISO 7390			
				Ambient air temperature	+5 °C min. / +40 °C max.			
				Substrate temperature	+5 °C min. / +40 °C max., min. 3 °C above dew point temperature			
				Curing rate	~2 mm/24 hours (23	(CQP 049-2)		
Skinning time	~120 minutes (23 °C	(CQP 019-1)						
Tooling time	~100 minutes (23 °C	(CQP 019-2)						



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# **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.

# ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets before using any products. 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.

# FURTHER INFORMATION

- Material Data Sheet (SDS)
- Pre-treatment Chart Sealing & Bonding
- Method Statement Joint Sealing
- Method Statement Joint Maintenance, Cleaning and Renovation
- Technical Manual Facade Sealing

# IMPORTANT CONSIDERATIONS

- SikaHyflex®-140 Construction can be overpainted with most conventional facade coating paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (e.g. according to ISO technical paper: Paintability and Paint Compatibility of Sealants). The best over-painting results are obtained when the sealant is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the sealant and lead to cracking of the paint film.
- Colour variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation (especially with the colour shade white). 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<sup>®</sup>-140 Construction on natural stone.
- Do not use SikaHyflex<sup>®</sup>-140 Construction on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant.
- Do not use SikaHyflex<sup>®</sup>-140 Construction to seal joints in and around swimming pools.
- Do not use SikaHyflex<sup>®</sup>-140 Construction for joints under water pressure or for permanent water immersion.
- Do not expose uncured SikaHyflex®-140 Construction to alcohol containing products as this may interfere with the curing reaction.

## **APPLICATION INSTRUCTIONS**

#### SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. SikaHyflex®-140 Construction adheres

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However, for optimum adhesion and critical, high performance applications, such as on multi-story buildings, highly stressed joints, extreme weather exposure or water immersion, the following priming and/or pretreatment procedures shall be followed:

#### Non-porous substrates

Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. Before sealing, allow a flash-off time of > 15 minutes (< 6 hours). Other metals, such as copper, brass and titanium-zinc, also have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. After the necessary flash-off time, use a brush to apply Sika® Primer-3 N and allow a further flash-off time of > 30 minutes (< 8 hours) before sealing the joints. PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).

#### **Porous substrates**

Concrete, aerated concrete and cement based renders, mortars and bricks shall be primed using Sika<sup>®</sup> Primer-3 N applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).

For more detailed advice and instructions please contact the local Sika Technical Services Department.

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<sup>®</sup>-140 Construction is supplied ready to use. After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a foil pack or cartridge into the sealant gun and extrude SikaHyflex<sup>®</sup>-140 Construction into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. SikaHyflex<sup>®</sup>-140 Construction 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. Do not use tooling products containing solvents.

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



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#### **CLEANING OF EQUIPMENT**

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

# 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 exact product data and uses.

## **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.

PT. Sika Indonesia Head Office and Manufacturing Jl. Raya Cibinong-Bekasi Km.20 Limusnunggal-Cileungsi

Bogor 16820-Indonesia Tel. +62 21 8230025, Fax +62 21 8230026



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