BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-140 Construction

Elastic joint sealant for concrete and masonry facades

DESCRIPTION

Sikaflex®-140 Construction is a 1-part, polyurethane elastic joint sealant. It is used for durably sealing connection and movement joints in concrete and masonry facades and also as general purpose construction sealant.

USES

The Product is used for sealing and weatherproofing joints in the building envelope where reliability and durability is required.
The Product is used for the following application areas:

- Interior or exterior joint sealing
- Around window and door frames
- Around precast elements
- Around prefabricated elements
- Floor and wall construction joints

CHARACTERISTICS / ADVANTAGES

- Easy to extrude and tool
- Movement capability of ± 25 % (ASTM C 719)
- Good adhesion to many construction materials
- Bubble-free curing

ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Indoor Environmental Quality (EQ) Credit: Low-Emitting Materials under LEED® v4

CERTIFICATES AND TEST REPORTS

- Joint Classification, ASTM C920, Class 25, Sikaflex®-140 Construction

PRODUCT INFORMATION

Composition	Sika i-Cure® polyurethane	
Packaging	600 ml foil pack	20 foil packs per box
Colour	▪ White ▪ Black ▪ Grey	
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 the current Safety Data Sheet for information on safe handling and storage.	
Density	(1.25 ± 0.1) kg/l	(ISO 1183-1)

Product Declaration	ASTM C 920-18	Type S, Grade NS, Movement Class 25, Use T1, Use NT, Use M

TECHNICAL INFORMATION

Shore A Hardness	Cured 28 days at +23 °C and 50 % R.H.	35	(EN ISO 868)
Secant Tensile Modulus	Cured 28 days at +23 °C and 50% R.H. Measured at 60% elongation at +23 °C	0.30 N/mm²	(ISO 8339)
Elastic Recovery	Cured 28 days at +23 °C and 50 % R.H. Measured at 100 % elongation for 24 hours	70 %	(EN ISO 7389)
Tear Propagation Resistance	Cured 7 days at +23 °C and 50 % R.H.	6.0 N/mm	(ISO 34-2)
Movement Capability	±25 %		(ASTM C719)
Service Temperature	Maximum	+70 °C	
	Minimum	-40 °C	
Joint Design	For movement joints, the width must be at least 8 mm and should not exceed 40 mm. For non-movement joints such as connection joints in interior areas, the joint width can be less than 8 mm. The joint dimensions must be designed to suit the movement capability of the sealant. In all cases joints must be at least 8 mm deep, or a have a width to depth ratio of 1 : 0.5 for the facade joints or 1 : 0.8 for floor joints whichever is greater. For more information about joint design and calculations refer to the Sika document Design guideline: Dimensioning of construction joints or contact Sika Technical Services.		
Elongation at break	Cured 7 days at +23 °C and 50 % R.H. Measured at 100 % elongation at -20 °C	800 %	(ISO 37)

APPLICATION INFORMATION

Backing Material	Use closed cell, polyethylene foam backing rod.		
Sag Flow	20 mm profile tested at +50 °C	2 mm	(EN ISO 7390)
Product Temperature	Maximum	+40 °C	
	Minimum	+5 °C	
Ambient Air Temperature	Maximum	+40 °C	
	Minimum	+5 °C	
Substrate Temperature	Maximum	+40 °C	
	Minimum	+5 °C	
	Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point.		
Curing Rate	At +23 °C and 50 % R.H.	2 mm / 24 hours	(CQP049-2)

Skin Time	At +23 °C and 50 % R.H.	120 minutes	(CQP019-1)
Tooling Time	At +23 °C and 50 % R.H.	100 minutes	(CQP019-2)

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

IMPORTANT
Poor adhesion due to inadequate surface preparation
Primers are adhesion promoters.
1. Do not use primers for improving poorly prepared or poorly cleaned joint surfaces.

IMPORTANT
Poor adhesion due to incorrect priming procedure
Incorrectly defined or uncontrolled priming procedures may lead to a variation in Product performance.
1. Test adhesion on project-specific substrates and agree on procedures with all parties before full project application. For more information contact Sika Technical Services.

The substrate must be sound, clean, dry and free of contaminants such as dirt, oil, grease, cement laitance, sealant residues and poorly bonded coatings which could affect adhesion of the primer and sealant.
The substrate must be of sufficient strength to cope with the stresses induced by the sealant during movement.
1. Use techniques such as wire brushing, grinding, grit blasting or other suitable mechanical methods to remove all weak substrate material.
2. Repair all damaged joint edges with suitable Sika repair products.
3. Remove dust, loose and friable material from all surfaces before applying the sealant.

If tested or supported by experience, the Product can be used without primers or activators on many substrates.
Use the following priming or pre-treatment procedures to ensure optimum adhesion and joint durability, or if the Product is used for high-performance applications such as joints on multi-storey buildings, highly stressed joints, or joints exposed to extreme weather.
NON-POROUS SUBSTRATES
Aluminium, anodised aluminium, stainless steel, galvanised steel or glazed tiles
1. Lightly roughen the surface with a fine abrasive pad.
2. Clean the surface.
3. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.

Other metals, such as copper, brass and titanium-zinc
1. Lightly roughen the surface with a fine abrasive pad.
2. Clean the surface.
3. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.
4. Wait until the flash-off time is over.
5. Prime the surface with Sika® Primer-3 N applied with a brush.

Powder-coated metals
1. Carry out preliminary trials to verify adhesion. For more information contact Sika Technical Services.

PVC substrates
1. Prime the surface with Sika® Primer-215 applied with a brush.

POROUS SUBSTRATES
Concrete, aerated concrete and cement based renders, mortars and bricks
1. Prime the surface with Sika® Primer-3 N or Sika® Primer-115 applied with a brush.

Concrete that is 2 to 3 days old, or matt wet (surface dry)
1. Prime the surface with Sika® Primer-115 applied with a brush.

APPLICATION

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.

IMPORTANT
Staining on natural stone substrates due to plasticiser migration
Staining from plasticiser migration may occur when used on cast, reconstituted or natural stone such as granite, marble or limestone substrates.
1. Do not use on natural stone substrates

IMPORTANT
Degradation of sealant due to substrates leaching oil, plasticisers, or solvents
Bitumen, natural rubber or EPDM rubber can leach oils, plasticisers, or solvents that can degrade the sealant and cause the Product to become tacky.
1. Do not use the Product on building materials which leach oils, plasticisers, or solvents.

IMPORTANT
Degradation of sealant due to chemical attack
1. Do not use the Product to seal joints in and around swimming pools containing water treatment agents such as chlorine.

IMPORTANT
Insufficient curing due to exposure to alcohol
Exposure to alcohol during curing may interfere with the curing reaction and cause the Product to remain soft or become tacky.
1. Do not expose the Product to alcohol-containing

products during the curing period.

IMPORTANT

Application in confined spaces

Atmospheric moisture is required for the Product to cure.

1. Do not apply the Product in enclosed spaces with limited exchange of air.

Delayed skin formation and curing time due to changing ambient conditions

Note: Changing ambient conditions can affect product performance. Skin formation and curing time can be significantly delayed by low humidity, low temperature and large joint dimensions.

1. (Optional): Apply masking tape where neat or exact joint lines are required.
2. After the required substrate preparation, insert a backing rod to the required depth.
3. Prime the joint surfaces as recommended in substrate preparation. Note Avoid excessive application of the primer.
4. Open the seal on the top of the cartridge or open the end of the foil pack.
5. Fit the nozzle and cut it to the desired bead size.
6. Insert the Product into the application gun.
7. Apply the Product into the joint. Note Avoid air entrapment. Make sure that the Product comes into full contact with the adhesion area of the joint.
8. IMPORTANT Do not use tooling products containing solvents. As soon as possible after application, tool the Product firmly against the joint sides to ensure adequate adhesion and a smooth finish. Use a compatible tooling agent such as Sika® Tooling Agent N to smooth the joint surface.
9. (Optional): Remove the masking tape within the skin formation time of the Product.

OVERPAINTING THE SEALANT

IMPORTANT

Tacky paint due to plasticiser migration

Paints and sealants or adhesives may contain plasticizers and other substances that migrate and can cause the painted surface to become tacky.

IMPORTANT

Cracking paint due to joint movement

Rigid paint applied on top of a sealant or flexible adhesive may crack when used on joints subject to movement.

The Product can be overpainted with most conventional paint coating systems.

1. Allow the Product to fully cure before overpainting.
2. Before overpainting, carry out preliminary trials to test compatibility of the paint or coating system with the Product in accordance with ISO/TR 20436:2017 – Buildings and civil engineering works — Sealants — Paintability and paint compatibility of sealants.

Colour variation
Note: Colour variation may occur especially with white or other light colour shades. This effect is purely aesthetic and does not adversely influence the technical performance or durability of the Product.

LOCAL RESTRICTIONS

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

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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