

SEALING & BONDING HIGH PERFORMANCE SEALANTS

PRODUCT SOLUTIONS FOR SEALING APPLICATIONS



BUILDING TRUST CONSTRUIRE LA CONFIANCE

SIKA: SEALING SOLUTIONS FOR ALL YOUR NEEDS

Sikaflex®-1a

A one-component, all-purpose polyurethane construction sealant that accommodates 35 % joint movement, remains permanently elastic and water resistant. Easy to gun, easy to tool, fast tackfree time and primerless adhesion to a wide variety of construction substrates. Excellent for small joints and fillets.

Sikaflex®-15 LM

A one-component, low modulus polyurethane construction sealant that allows 100 % joint expansion and 50 % contraction without loss of bond or without rupturing. Excellent in high-rise building applications requiring increased movement capability, moving joints between similar and dissimilar materials and Exterior Insulation Finishing System (EIFS) installations.

Sikaflex[®] AT-Connection

A moisture-curing elastic sealant that achieves adhesion to traditionally problematic substrates, including PVC and vinyl, while affording +/- 25 % movement capability. Ideal for connection and perimeter joints between porous and non-porous substrates such as those for PVC windows and doors.

SikaHyflex[®]-150 LM

A one-component high movement, fast-curing, non-sag, elastomeric, hybrid sealant with a +/- 50 % movement capability. Ideal for for joints or gaps connecting dissimilar substrates (vinyl to concrete, aluminium to EIFS), window perimeter, expansion joints, curtain wall construction. For applications requiring paintability and adhesion to non-porous substrates. Superior UV and weathering resistance.

Sikaflex[®]-1c SL

A one-component self-levelling polyurethane construction sealant supplied in convenient and easy to use packaging. Quick to install, it accepts +/- 25 % joint movement. Highly durable and fast-curing; specially suited for horizontal expansion and control joints.

Sikaflex[®]-2c SL

A two-component, self-levelling and chemically curing polyurethane sealant, designed for horizontal joints with up to +/- 50 % joint movement. Cold-Weather Booster Pak can be used to accelerate cold curing. Ideal for large horizontal joints and those subjected to vehicular traffic or submerged conditions.

Sikaflex[®]-2c NS EZ Mix

A two-component, chemically curing, gun grade polyurethane sealant, ideally suited for joints with up to +/- 50 % joint movement. Cold-Weather Booster Pak or TG (Traffic Grade) components can be added. Suitable for large joints and joints in submerged environments.

Duoflex® NS/SL

A two-component, chemically resistant polysulfide sealant with +/- 25 % movement capability. Suitable for exterior and interior use, in both static and dynamic joints. Available in non-sag and self-levelling formulations. Ideal for immersed applications or where a more chemically resistant sealant is required.

Sikadur[®] Combiflex

High performance joint sealing system based on a Sikadur[®] Combiflex (Hypalon) flexible sheeting and Sikadur[®]-30 / Sikadur[®]-31 Hi-Mod Gel^{CA} epoxy adhesives. Easy to apply, economical to use, and suitable for use in submerged conditions and on a wide variety of substrates such as concrete, steel, wood and aluminum. It is ideal for irregular, high movement and difficult to seal joints.

TYPICAL CONSTRUCTION SEALANT APPLICATIONS

TECHNICAL DATA Typical Technical Properties of Sika® Sealants									
	Sikaflex®-1a	Sikaflex®- 15 LM	Sikaflex [®] AT-Connection	SikaHyflex®-150 LM	Sikaflex®-1c SL	Sikaflex®-2c SL	Sikaflex®-2c NS EZ Mix	Duoflex® NS/SL	Sikadur® Combiflex
Service Range	-40 to 77 °C (-40 to 170 °F)	-40 to 77 °C (-40 to 170 °F)	-40 to 70 °C (-40 to 158 °F)	-40 to 76 °C (-40 to 170 °F)	-40 to 77 °C (-40 to 170 °F)	-40 to 77 °C (-40 to 170 °F)	-40 to 77 °C (-40 to 170 °F)	-40 to 77 °C (-40 to 170 °F)	-40 to 65°C (-40 to 149°F)
Tack-Free Time	4 h	3 - 6 h	~ 1 h	~1h	1 - 2 h	6 - 8 h	8 - 10 h	6 h	1 h 30 - 2 h (30 mils)
Final Cure	4 - 7 days	7 - 10 days	5 - 7 days	3 - 5 days	3 - 5 days	3 days	3 days	7 days	-
Elongation	500%	700 %	~ 450 %	1000 %	450%	650%	250 %	500% - 550%	800%
Tensile Strength	1.37 MPa (200 psi)	0.86 MPa (125 psi)	1.3 MPa (189 psi)	0.20 MPa (29 psi)	1.03 MPa (150 psi)	1.2 MPa (175 psi)	0.62 MPa (90 psi)	1.03 - 1.38 MPa (150 - 200 psi)	6.8 MPa (1000 psi)
Hardness, Shore A	40 ±5	20 ±5	25 ±5	27	45 ±5	40 ±5	25 ±5	25 ±5	-
Adhesion in Peel Bond Strength (Concrete)	3.4 N/mm (20 lb/in)	5.1 N/mm (30 lb/in)	2.27 N/mm (13 lb/in)	5.4 N/mm (32 lb/in)	4.9 N/mm (28 lb/in)	5.3 N/mm (30 lb/in)	> 2.63 N/mm (> 15 lb/in)		No loss of adhesion between Sikadur® Combiflex Hypalon and Sikadur®-31 Hi-Mod Gel ^{CA} or Sikadur® 31-Hi-Mod Gel ^{CA} and concrete.
joint Movement Capability	± 35 %	+100 % / -50 %	± 25 %	± 50%	± 25%	± 50 %	± 50 %	± 25 %	-
Colours	11 standard colours. Special colours available upon request	14 standard colours. Special colours available upon request	3 standard colours. Special colours available upon request	2 standard colours. Special colours available upon request	Concrete Grey	35 standard colours. Special colours available upon request		Bronze	Concrete Grey
pecification Conformance: ASTM C920; Federal Specifications -TT-S-00230C; TT-S-001543A; TT-S-00227E corps of Engineers - CRD C 506; CRD C 541; CRD C 542 Meets CAN/CCSB 19.13 - M87 Area CAN/CCSB 19.13 - M87								Approvals: ANSI/NSF - Potable Water Use; USDA - Food Contact; ULc - Fire Rating. Please refer to the Product Data Sheets for specific	





Product selection must be based on the specific requirements of the application, such as the exact substrate type, the application conditions and the intended service. In certain applications, primers may be required, for which the Sikaflex® Primers Product Data Sheet can be referred to. Preparation and application information is available on the Product Data Sheet for each individual product. For any additional information, contact Sika Canada.

PRODUCT SELECTION

From new construction to restoration work, Sika has the right product for most applications. Sikaflex[®] sealants and adhesives are engineered to provide long-term, cost-effective solutions to meet your construction needs.

Sika's polyurethane sealants do not require primers typically, owing to their enhanced bonding characteristics. Where primers may be necessary, for example in joints due to be immersed or where problematic substrates exist, please consult the Product Data Sheet for both the Sikaflex[®] sealants and primers for preparation and installation guidance.

A Sikaflex®-1a
B Sikaflex®-15 LM
C Sikaflex® AT-Connection
D SikaHyflex®-150 LM
E Sikaflex®-1c SL
F Sikaflex®-2c SL
G Sikaflex®-2c NS EZ Mix
H Duoflex® NS/SL
I Sikadur® Combiflex
★ Consult Sika Canada

JOINT DESIGN CONSIDERATIONS

The diagrams shown below depict the relationship between joint design and the maximum strain (S) on the parabolic surface of a Sikaflex® joint sealant. Increasing the width (W) of the joint and decreasing the depth (D) generally reduces strain and improves performance. Furthermore, this reduces the amount of sealant required, as illustrated by the comparison of sealant units required.



EXPANSION JOINTS This type of joint permits expansion and contraction between construction materials of differing thermal response, adjacent parts of a structure, or within significant sections of concrete, masonry or other building fabric without risk of rupture or damage.



CONTROL JOINTS This type of joint is formed, sawed or tooled at pre-selected positions to induce controlled cracking in locations of predetermined stress.



LARGE MULTI-DIRECTIONAL EXPANSION AND CONTRACTION JOINTS Large movement joints allow for considerable multi-directional movement and often involve submerged joints requiring good chemical resistance. A high performance joint sealing system comprised of fully compatible materials with proven adhesion, designed to meet the needs of these high movement and often irregular joints, is called for.





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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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