BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET
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ELASTOMERIC JOINT SEALANTS

Sikaflex®-15 LM

ONE-COMPONENT, LOW MODULUS AND HIGH PERFORMANCE, ELASTOMERIC POLYURETHANE SEALANT

Description

Sikaflex®-15 LM is a low modulus, high performance, one-component, polyurethane-based, non-sag elastomeric sealant.

Where to Use

- Excellent for moving joints i.e. expansion, construction, whether in vertical or horizontal applications.
- Suitable for use between similar as well as dissimilar materials.
- Typical applications include joints in panel and wall systems, around window and door frames, reglets, flashings, etc.
- Exceptional sealant choice for high rise and facade applications where high movement capacity is required.
- An effective sealant for use in Exterior Insulation Finish Systems (EIFS).

Advantages

- Capable of +100 % / -50 % joint movement.
- Easy and ready to gun.
- Eliminates time, effort, waste, and equipment cleaning.
- Cures to a durable, flexible consistency.
- Excellent cut and tear resistance.
- Stress relaxation properties.
- Non-leaching.
- UL certified to CAN/ULC-S115-05: Standard Method of Firestop Systems and to ANSI/UL 2070: Fire Resistance of Building Joint Systems (FF-S-0037, FW-S-0018, HW-S-0095, WW-S-0060) for use in Canada. Specific joint designs and substrates apply in Canada (see Limitations).
- Low modulus of elasticity.
- Excellent adhesion.
- Bonds to most construction materials, often without primer.
- Excellent resistance to aging, weathering.
- Proven in tough climates around the world.
- Can be painted with water-, oil- and rubber-based paints.
- Meets CAN/CGSB 19.13-M87, Classification MCG-2-40-B-N.
- Meets Federal Specification TT-S-00230C, Type II, Class A.
- Meets Federal Specification TT-S-00227E.
- SWRI validated.
- USDA approved (chemically acceptable for use in meat and poultry processing areas under federal inspection).
- Meets ASTM C719 Ext.+100 % Comp. -50 %.
- Meets ASTM C1382 when used in Exterior Insulation Finish Systems (EIFS) Joints.
- Meets ASTM C920, Type S, Grade NS, Class 100/50. Use T, NT, G, A, O, M.
- Meets Federal Specification for Silicones TT-S-001543A, Type NON SAG.
- Ministère des Transports du Québec (MTQ) acceptance.

Technical Data

Packaging	300 mL (10.1 US fl. oz) cartridge, 24/case; 590 mL (20 US fl. oz) sausage, 20/case			
Colour	White, Colonial White, Aluminum Grey, Architectural Bronze, Limestone, Black, Dark Bronze, Capitol Tan, Off White, Almond, Beige, Coping Stone, Aluminum Stone, Redwood Tan.			
Yield	Linear Metre of Sealant per Litre		Linear Feet of Sealant per Cartridge	
Width	**Depth**		**Depth**	
mm (in)	**6 (¼)**	**13 (½)**	**6 (¼)**	**13 (½)**
6 (¼)	24.8		24.4	
13 (½)	12.4	6.2	12.2	6.1
19 (¾)	8.3	4.1	8.2	4.0
Shelf Life	Cartridge/sausage: 12 months in original, unopened packaging. Store product at temperatures between 4 and 23 °C (39 and 73 °F). Condition product between 18 and 23 °C (65 and 73 °F) before using.			
Application Temperature	4 to 38 °C (39 to 100 °F). Sealant should be installed when joint is at mid-range of its anticipated movement.			

Properties at 23 °C (73 °F) and 50 % R.H.

Service Range	-40 to 77 °C (-40 to 170 °F)		
Curing Rate	Tack-free time		3 to 6 hours (TT-S-00230C)
	Tack-free to touch		3 hours
	Final cure		7 to 10 days
Shore A Hardness ASTM D2240			
21 days	25 ± 5		
Tensile Properties ASTM D412			
21 days	Tensile stress		0.86 MPa (125 psi)
	Elongation at break		700 %
	Modulus of elasticity	25 %	0.13 MPa (20 psi)
		50 %	0.24 MPa (35 psi)
		100 %	0.34 MPa (50 psi)
Adhesion in Peel TT-S-00230C			
Substrate	**Peel Strength**		**Adhesion Loss**
Aluminum	4.25 N/mm (25 lb/in)		0 %
Glass	4.25 N/mm (25 lb/in)		0 %
Concrete	5.1 N/mm (30 lb/in)		0 %
Weathering Resistance	Excellent		
VOC Content	47.9 g/L		
Chemical Resistance	Good resistance to water, diluted acids, and diluted alkalines. Not normally for fully immersed conditions.		

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

HOW TO USE

Surface Preparation

All joint surfaces must be clean, sound, dry and frost-free. Joint walls must be free of oils, tar, asphalt, bitumen, grease, paints, coatings, sealers, curing compound residues and any other foreign matter that might prevent adhesion. Ideally this should be accomplished by mechanical means. Bond breaker tape or backer rod must be used in bottom of joint to prevent bond.

Priming

Priming is not usually necessary. Most substrates only require priming if testing indicates a need or where sealant will be subjected to water immersion after cure. Consult Sikaflex® Primers Product Data Sheet or contact Sika Canada for additional information

Note: Most Exterior Insulation Finish System (EIFS) manufacturers recommend the use of a primer. When EIFS manufacturer specifies a primer or if on-site bond testing indicates a primer is necessary, Sikaflex®-429 primer is recommended. On-site adhesion testing is recommended with final system prior to the start of a job.

Application

Recommended application temperatures between 4 to 38 °C (39 to 100 °F). For cold-weather application, store units at approximately 21 °C (70 °F); remove just prior to using. Make sure joint is frost-free. Cut plastic tip on cartridge to desired joint size. Puncture airtight seal at base of tip. Place nozzle of gun into bottom of joint and fill entire joint. Keeping the nozzle deep in the sealant, continue with a steady flow of sealant preceding nozzle to avoid air entrapment. Also, avoid overlapping of sealant since this also entraps air. Tool as required. Proper joint design for moving joints is 2:1 width to depth ratio, with a recommended 6 mm (1/4 in) minimum and 13 mm (1/2 in) maximum depth of sealant. For non-moving joints, the width to depth ratio can vary. Install with hand or power operated caulking gun. For best performance, Sikaflex®-15 LM should be gunned into joint when joint slot is at mid-point of its designed expansion and contraction.

Clean Up

Uncured material can be removed from equipment and tools using Sika® Urethane Thinner and Cleaner. Cured material can only be removed manually or mechanically. For removal of uncured material from hands and sensitive surfaces, use Sika® Hand Cleaner.

Limitations

- Allow one (1) week to cure under standard conditions when using Sikaflex®-15 LM in water immersion situations and prior to painting.
- When overcoating with water-, oil- and rubber-based paints, compatibility and adhesion testing is essential.
- Avoid exposure to high levels of chlorine. (Maximum continuous level is 5 ppm of chlorine.)
- Maximum depth of sealant must not exceed 13 mm (1/2 in); minimum depth is 6 mm (1/4 in).
- Avoid contact with materials or surfaces impregnated with, or containing, oil, asphalt, tar or bituminous substances.
- Do not apply or cure in the presence of uncured silicone sealants, alcohol and other solvent cleaners.
- Do not apply when moisture-vapour-transmission condition exists from the substrate as this can cause bubbling within the sealant.
- Some minimal surface skinning of product may be present in bulk packaging (pails, drums) within its shelf life. Cut and discard cured material to expose the uncured product that still may be used.
- Use opened cartridges and uni-pac sausages the same day.
- When applying sealant, avoid air-entrapment.
- Since system is moisture-cured, permit sufficient exposure to air.
- White colour tends to yellow slightly when exposed to ultraviolet rays.
- Light colours can yellow slightly if exposed to direct gas-fired heating elements prior to formation of initial skin.
- The ultimate performance of Sikaflex®-15 LM depends on good joint design and proper application to properly prepared joint surfaces.
- Fire-stopping and fire-resistance certification is based upon specific substrates, contact materials and joint configurations. Sika Canada must be consulted before proceeding with use of the product for such works.
- The depth of sealant in horizontal joints subject to traffic is 13 mm (1/2 in).
- Do not tool with detergent or soap solutions.

- The ultimate performance of Sikaflex®-15 LM depends on good joint design and proper application. With joint surfaces properly prepared and sealed, movement of 100 % - 50 % can be tolerated.
- Certain substrates require the use of a primer. Please consult the Sikaflex® Primers Product Data Sheet or contact Sika Canada.
- Although applying sealants over paints, sealers or coatings is not recommended within the industry, where it cannot be avoided, it is always necessary to test for adhesion. It should also be recognized that the existing paint, sealer or coating will dictate bond values and possibly the integrity of a subsequently applied sealant and thus the performance of the joint.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

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