# Sikaflex®-15 LM

# High-performance, low-modulus elastomeric sealant

## Description

Sikaflex-15 LM is a low-modulus, high-performance, 1-component, polyurethane-based, non-sag elastomeric sealant. Meets Federal Specification TT-S-00230C, Type II, Class A; ASTM C-920, Type S, Grade NS, Class 100/50, use T, NT, G, A, O, M; Federal Specification for silicones - TT-S-001543 A, Type non-sag. Tested in accordance with ASTM C-1382 for use in EIFS systems.

#### Where to use

- Excellent for moving joints in vertical applications.
- Suitable for use between similar as well as dissimilar materials.
- Typical applications include joints in concrete panel and wall systems, around window and door frames, reglets, flashing, common roofing detail applications, etc.
- Exceptional sealant choice for high-rise and facade applications where high movement capability is required.
- An effective sealant for use in Exterior Insulation Finish Systems (EIFS).

## **Advantages**

- Low modulus of elasticity.
- Easy and ready to use.
- Eliminates time, effort, waste, and equipment clean-up.
- Cures to a durable, flexible consistency.
- Exceptional cut and tear resistance.
- Stress relaxation properties.
- Excellent adhesion.
- Bonds to most construction materials without a primer.
- Paintable with water-, oil- and rubber based paints.
- Excellent resistance to aging, weathering.
- Jet fuel resistant.
- Proven in tough climates around the world.
- Non-leaching.
- Capable of +100% / -50% joint movement.
- Two-hour UL fire rating when used with Ultra Block®.

#### Coverage

10.1 fl. oz. cartridge seals 12.4 lineal ft. of 1/2 in. x 1/4 in. joint. 20 fl. oz. uni-pac sausage seals 24 lineal ft. of 1/2 in. x 1/4 in. joint.

#### Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf Life 10.1 fl. oz. cartridges 12 months

20 fl. oz. uni-pac sausages 12 months 5 gal. pails 6 months 55 gal. drums 6 months

Storage Conditions Store at 40°-95°F. Condition material to 65°-75°F before using.

Colors White, Colonial White, Aluminum Gray, Limestone, Black, Dark Bronze,

Capitol Tan, Off-White, Beige, Almond, Coping Stone, Aluminum Stone, Medium Bronze, Redwood Tan, Hartford Green and Stone. Special colors on

request (min. volume).

**Application Temperature** 40° to 100°F. Sealant should be installed when joint is at mid-range

of its anticipated movement.

Service Range -40° to 170°F (-40° to 75°C)

Curing Rate Tack-free time 4 to 8 hours (TT-S-00230C)

Tack-free to touch 3 hours Final cure 7 to 10 days

Recovery >80%

Shore A Hardness (ASTM D-2240) 21 day  $25 \pm 5$ 

**Tensile Properties (ASTM D-412)** 

21 day Tensile Stress 125 psi (.86 MPa)

Elongation at Break 700%

Modulus of Elasticity 25% 20 psi (.13 MPa) 50% 35 psi (.24 MPa) 100% 50 psi (.34 MPa)

Adhesion in Peel (TT-S-00230C)

Substrate Peel Strength Adhesion Loss

Aluminum 25 lb. 0%
Glass 25 lb. 0%
Concrete 30 lb. 0%

Weathering Resistance Excellent

**Chemical Resistance** 

Good resistance to water, diluted acids, and diluted alkalines. Not normally for fully immersed conditions. Consult Technical Service for specific data.



Packaging	Disposable 10.1 fl. oz., moisture-proof composite cartridges, 24/case; and uni-pac sausages 20 fl. oz., 20/case. Available on special order: 5 gal. pails, 55 gal.		Linear Feet of Sealant per Gallon Depth		
Haw to Has	drums.		Inches	1/4	1/2
How to Use Surface Preparation	Clean all surfaces. Joint walls must be sound, clean,	ı	1/4	308.0	
	dry, frost-free, and free of oil and grease. Curing compound residues and any other foreign matters must	_	1/2	154.0	77.0
	be thoroughly removed. A roughened surface will also	Width	3/4	102.7	51.3
	enhance bond. Install bond breaker tape or backer rod to prevent bond at base of joint.	≥	1	77.0	38.5
Priming	Priming is typically not necessary. Most substrates only require priming if testing indicates a need, i.e. due to excessively porous substrate. Consult Sikaflex Primer Technical Data Sheet or Technical Service for complete information as to primer requirements.		1 ½	61.6	30.8
			1 ¾	51.3	25.7
	Note: Most Exterior Insulation Finish Systems (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, 40°-100°F. For cold-weather applications, pre-conditioning units to approximately 70°F is recommended. Only apply sealant to clean, sound, dry, and frost-free substrates. Sikaflex-15 LM should be applied into joints when joint slot is at mid-point of its designed expansion and contraction.  Place nozzle of gun into bottom of the joint filling entire joint. Keep nozzle in the sealant, and continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment.  Avoid overlapping of sealant to eliminate entrapment of air.  Tool sealant to ensure full contact with joint walls and remove air entrapment. Joint dimension should allow for 1/4 inch minimum and 1/2 inch maximum thickness for sealant. Proper design is 2:1 width to depth ratio.				
Limitations	<ul> <li>Allow 1 week cure at standard conditions when using Sikaflex-15 LM in total water immersion situations and prior to painting.</li> <li>Maximum depth of sealant must not exceed 1/2 in.; minimum depth is 1/4 in.</li> <li>Do not cure in the presence of curing silicone sealants.</li> <li>Avoid contact with alcohol, and other solvent cleaners, during cure.</li> <li>When overcoating, an on site test is recommended to determine compatibility.</li> <li>Do not apply when moisture-vapor-transmission condition exists from the substrate, as this can cause bubbling within the sealant.</li> <li>Use opened cartridges and uni-pac sausages the same day.</li> <li>When applying sealant, avoid air-entrapment.</li> <li>Since system is moisture-cured, permit sufficient exposure to air.</li> <li>White color tends to yellow slightly when exposed to ultraviolet rays.</li> <li>Light colors can yellow if exposed to direct gas fired heating elements.</li> <li>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.</li> <li>Do not use in contact with bituminous/asphaltic materials.</li> <li>Joint sealant needs to be recessed in properly designed traffic bearing joint.</li> </ul>				
Caution	WARNING: IRRITANT, SENSITIZER. Contains Polyisocyanate Prepolymer (Mixture), Xylene (CAS 1330-20-7). Causes eye irritation. May cause skin/respiratory irritation. May cause skin and/or respiratory sensitization after prolonged contact. May be harmful if swallowed. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Headaches and dizziness may result. Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.				
Handling & Storage	Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse. Store in cool dry well ventilated area.				
Cleanup	Use personal protective equipment (chemical resistant gloves/ goggles/clothing). Without direct contact, remove spilled or excess product and placed in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.				
First Aid Measures	Eyes: Hold eyelids apart and flush thoroughly with water f	for 1	15 minutes. Ski	n: Remove con	taminated

Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin: Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation: Remove to fresh air. Ingestion: Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.

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