Product Data Sheet Edition 5.13.2016 Sikaflex-15 LM

# Sikaflex®-15 LM

# High-performance, low-modulus elastomeric sealant

Issued to: Sika Corporation
Product: Sikallex\* 151.M
C719: Pass \_\_\_\_ Ext:+100% Comp:-50%
Substrate: Mortar, Aluminum, Glass
[motal substrate primed with Sila Primer 429]
Validation Date: 2/27/14 - 2/26/19

SEALANT VALIDATION

No. 214-SIK817

#### 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.
- 2- and 3-hour UL Fire Rated Joint System Nos. FF-S-0007, FF-S-0037, FW-S-0015, FW-S-0018, HW-S-0076, HW-S-0095, WW-S-0011 and WW-S-0060.
- 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.

# Chemical Resistance

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

# Packaging Coverage

10.1 fl. oz. (300 mL), 20 fl. oz. (591 mL), 4.5 gal (17 L) in a 5 gal pail, 52 gal (197 L) in a 55 gal drum

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

RÉSULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHÓDS 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
 2 to 6 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

Tensile Stress 125 psi (.86 MPa)
Elongation at Break 700%
Stress at 100% 50 psi (.34 MPa)

Adhesion in Peel (TT-S-00230C)

Substrate

Peel Strength Adhesion Loss 25 lb. 0%

Aluminum 25 lb.

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

Weathering Resistance Exce

Chemical Resistance Good resistance to water, diluted acids, and diluted alkalines. Not normally for fully immersed condi-

tions. Consult Technical Service for specific data.



PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT HTTP://USA.SIKA.COM/ OR BY CALLING SIKA'S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH SIKA PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

10.1 oz Cartridge: Yield in Linear feet							
Depth		1/4"	3/8"	1/2"			
	1/4"	24.3					
	3/8"	16.2	10.8				
Width	1/2"	12.1	8.1	6.1			
	3/4"	8.1	5.4	4.0			
	1"			3.0			
	1.25"			2.4			
	1.5"			2.0			

20 oz Sausage: Yield in Linear feet							
Depth		1/4"	3/8"	1/2"			
Width	1/4"	48.1					
	3/8"	32.1	21.4				
	1/2"	24.1	16.0	12.0			
	3/4"	16.0	10.7	8.0			
	1"			6.0			
	1.25"			4.8			
	1.5"			4.0			

1 gallon: Yield in Linear feet							
Depth		1/4"	3/8"	1/2"			
Width	1/4"	307.9					
	3/8"	205.3	136.8				
	1/2"	153.9	102.6	77.0			
	3/4"	102.6	68.4	51.3			
	1"			38.5			
	1.25"			30.8			
	1.5"			25.7			

### How to Use

### **Surface Preparation**

Clean all surfaces. Joint walls must be sound, clean, dry, frost-free, and free of oil and grease. Curing compound residues and any other foreign matters must be thoroughly removed. A roughened surface will also enhance bond. Install bond breaker tape or backer rod to prevent bond at base of joint.

#### Primina

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.

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.

### **Tooling and Finishing**

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.

## Removal

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.

#### **Over Painting**

Allow 1 week cure at standard conditions when using Sikaflex-15 LM in total water immersion situations and prior to painting.

#### Limitations

- Allow 1 week cure at standard conditions when using Sikaflex-15 LM in total water immersion situations and prior to painting.
- Maximum depth of sealant must not exceed 1/2 in.; minimum depth is 1/4 in.
- Do not cure in the presence of curing silicone sealants.
- Avoid contact with alcohol, and other solvent cleaners, during cure.
- When overcoating, an on site test is recommended to determine compatibility.
- Do not apply when moisture-vapor-transmission condition exists from the substrate, as this can cause bubbling within the sealant.

- 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 color tends to yellow slightly when exposed to ultraviolet rays.
  Light colors can yellow if exposed to direct gas fired heating elements.
  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. Do not use in contact with bituminous/asphaltic materials.
- Joint sealant needs to be recessed in properly designed traffic bearing joint

PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT HTTP://USA.SIKA.COM/ OR BY CALLING SIKA'S TECHNICAL SERVICE DE PARTMENT AT 800.933,7452 NOTHING CONTAINED IN ANY SIKA MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH SIKA PRODUCT AS SET FORTH IN THE CUR-RENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT  $\,$  USE.

KEEP CONTAINER TIGHTLY CLOSED. KEEP OUT OF REACH OF CHILDREN, NOT FOR INTERNAL CONSUMPTION, FOR INDUSTRIAL USE ONLY, FOR PROFESSIONAL USE ONLY.

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at http://usa.sika.com/ or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. SALE OF SIKA PRODUCTS ARE SUBJECT SIKA'S TERMS AND CONDITIONS OF SALE AVAILABLE AT HTTP://USA.SIKA.COM/ OR BY CALLING 201-933-8800. 1-800-933-SIKA NATIONWIDE

Visit our website at usa.sika.com

Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation 201 Polito Avenue Lyndhurst, NJ 07071 Phone: 800-933-7452 Fax: 201-933-6225

Sika Canada Inc. 601 Delmar Avenue Pointe Claire Quebec H9R 4A9 Phone: 514-697-2610 Fax: 514-694-2792

Sika Mexicana S.A. de C.V. Carretera Libre Celaya Km. 8.5 Fracc. Industrial Balvanera Corregidora, Queretaro





Phone: 52 442 2385800 Fax: 52 442 2250537 Sika and Sikaflex are registered trademarks Printed in Canada

