BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® CR 195

(formerly MSeal CR 195)

ONE-COMPONENT, ALIPHATIC, NON-SAG, ELASTOMERIC, POLYURETHANE SECURITY SEALANT

PRODUCT DESCRIPTION

Sikaflex® CR 195 is a one-component, moisture-curing, aliphatic, non-sag, polyurethane sealant for security and institutional uses requiring elasticity, abrasion, and puncture resistance, with superior color integrity.

USES

- Concrete, masonry
- Granite, marble
- Brick
- Metals
- Wood

Applications

- Horizontal and vertical
- Interior and exterior
- Immersed in water
- Storefronts
- Expansion joints
- Curtain walls
- Panel walls
- Precast units
- Aluminum, vinyl, and wood window frames
- Prisons
- Schools
- Stadiums
- Parking decks
- Plazas
- Wastewater treatment plants
- Dams
- Spillways and storm drains
- Wetwells and manholes

CHARACTERISTICS / ADVANTAGES

- Aliphatic polyurethane technology with non-staining, non-yellowing, non-chalking characteristics
- Pick-resistant, making it excellent for security applications, schools, and other public buildings
- High UV resistance prevents discoloration from sunlight
- The absence of tackiness creates a dirt-free, self-cleaning surface
- Medium modulus provides superior puncture and abrasion resistance
- Superior gun ability and workability for increased ease in tooling
- Movement capability ±25% expansion and contraction with joint movement
- Suitable for water immersion with documented performance in wet areas

APPROVALS / STANDARDS

- ASTM C 920, Type S, Grade NS, Class 25, Use NT, T, M, A, and I
- Federal Specification TT-S-00230C, Type II, Class A, when primed
- Corps of Engineers CRD-C-541, Type II, Class A
- Canadian approval for use in areas that handle food, CFI

PRODUCT INFORMATION

Chemical Base	Sikaflex® CR 195 is a one-component, moisture-curing aliphatic polyurethane.
Packaging	10.1 fl oz (300 ml) cartridges, 30 per carton 20 fl oz (590 ml) ProPaks, 20 per carton
Shelf Life	1 year when properly stored
Storage Conditions	Store in original, unopened containers away from heat and direct sunlight. Storing at elevated temperatures will reduce shelf life.
Color	Limestone, White and Aluminum Gray

TECHNICAL INFORMATION

Shore A Hardness	50±5		(ASTM C 661)
Tensile Strength	600 psi(4.1MPa)		(ASTM D 412)
Tensile Modulus of Elasticity	100% Modulus	160psi (1.1MPa)	(ASTM D 412)
Elongation at break	600%		(ASTM D 412)
Movement Capability	±25%		(ASTM C 719)
	Bond Durability Passes on glass aluminum, and concrete, ±25% movement		(ASTM C 719)
Adhesion in peel	Glass	37 CF*	(ASTM C 794)
	Aluminum	34 CF*	
	Concrete	43 CF*	
	Primed for water immersion dictated by ASTM C 920. Concrete and aluminum primed with P 173. * Cohesive failure		
Tear Strength	100 pit		(ASTM D 1004)
Shrinkage	None		
Service Temperature	-40 to 180° F (-40 to 82° C)		
Thermal Resistance	9.2% weight loss after heat aging		(ASTM C 792)
	No cracking and chalking after heat aging		(ASTM C 792)
Contact with water	Passes 10 weeks with cycling at 122˚ F (50˚ C)		(ASTM C 1247)
Color	Passes		(ASTM C 510)

Joint width

Joint Width, in (mm)	Sealant Depth, in (mm)
¼–½ (6–13)	¼ (6)
½–¾ (13–19)	¼–3⁄8 (6–10)
¾–1 (19–25)	3⁄8–½ (10–13)
1–1½ (25–38)	½ (13)

Extrusion rate	Passes, 3 seconds	(ASTM C 603)

APPLICATION INFORMATION

Coverage

Linear feet per Gallon

Joint width(Inches)		Joint Depth(Inches)	
	¼	3⁄8	½
¼	308		
3⁄8	205		
½	154		
5⁄8	122	82	
¾		68	51
7⁄8		58	44
1		51	38
1½			26
2			19
3			12

Meters per liter

Joint width(mm)		Joint Depthmm)	
	6	10	13
6	24.8		
10	16.5		
13	12.4		
16	9.8	6.6	
19		5.5	4.1
22		4.7	3.5
25		4.1	3.0
38			2.2
50			1.5
75			0.7

Sagging

No sag at 120° F (49° C) (ASTM C 639)

Cure Time

The cure of Sikaflex® CR 195 varies with temperature and humidity. The following times assume 75° F (24° C), 50% relative humidity, and a joint ½" width by ¼" depth (13 by 6 mm).

- Skins: overnight or within 24 hours
- Full cure: approximately 1 week
- Immersion service: 21 days

Tack Free Time

< 72 hrs (ASTM C 679)

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

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

APPLICATION INSTRUCTIONS

NOTES ON INSTALLATION

- Do not allow uncured Sikaflex® CR 195 to come into contact with alcohol-based materials or solvents.
- Do not apply polyurethane sealants in the vicinity of uncured silicone or hybrid sealants.
- Sikaflex® CR 195 should not come in contact with oil-based caulking, silicone sealants, polysulfides, or fillers impregnated with oil, asphalt, or tar.

- All horizontal applications require the use of Sika® Primer-173.
- Protect unopened containers from heat and direct sunlight.
- In cool or cold weather, store the container at room temperature for at least 24 hours before use.
- When Sikaflex® CR 195 is to be used in areas subject to water immersion, cure for 21 days at 70˚ F (25˚ C) and 50% relative humidity. Allow longer cure time at lower temperatures and humidity.
- Do not use it in swimming pools or other submerged conditions where the sealant will be exposed to strong oxidizers. Avoid submerged conditions where water temperatures will exceed 120˚ F (50˚ C).
- Lower temperatures will extend curing times.
- Do not apply over freshly treated wood; treated wood must have been weathered for at least 6 months.
- Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant. However, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion.
- Substrates such as copper, stainless, and galvanized steel typically require the use of a primer; Sika® Primer-173 or Sika® Primer-176 is acceptable. For Kynar coatings, use Sika® Primer-173 only. An adhesion test is recommended for any other questionable substrate.
- Sikaflex® CR 195 can be applied below freezing temperatures only if substrates are completely dry, free of moisture, and clean. Contact Technical Service for more information.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

SUBSTRATE PREPARATION

Joint Preparation

1. The product may be used in sealant joints designed in accordance with SWR Institute's Sealants - The Professional's Guide.
2. In optimum conditions, the depth of the sealant should be ½ the width of the joint. The sealant joint depth (measured at the center) should always fall between the maximum depth of ½" and the minimum depth of ¼". Refer to Table 1.
3. In deep joints, the sealant depth must be controlled by a closed-cell backer rod or soft backer rod. Where the joint depth does not permit the use of the backer rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.
4. To maintain the recommended sealant depth, install the backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about 1⁄8" (3 mm) larger in diameter than the width of the joint to allow for compression. The soft backer rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer rod.

Surface Preparation

Substrates must be structurally sound, fully cured, dry, and clean. Substrates should always be free of the following: dirt, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds, membrane materials, and sealant residue.

Concrete, Stone, And Other Masonry

Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

Wood

New and weathered wood must be clean, dry, and sound. Scrape away loose paint to bare wood. Any coatings on wood must be tested to verify the adhesion of the sealant or to determine an appropriate primer.

Metal

Remove scale, rust, and loose coatings from metal to expose a bright white surface. Any coatings on metal must be tested to verify the adhesion of the sealant or to determine an appropriate primer.

Priming

1. Sikaflex® CR 195 is considered a non-priming sealant, but special circumstances or substrates may require a primer. It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Refer to the product data sheet on Sika® Primer-173 or Sika® Primer-176, and consult Technical Services for additional information.
2. For immersion applications, Sika® Primer-173 must be used.
3. Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Porous surfaces require more primer; however, do not over-apply.
4. Allow the primer to dry before applying Sikaflex® CR 195. Depending on temperature and humidity, the

primer will be tack-free in 15–120 minutes. Priming and sealing must be done on the same day.

APPLICATION

1. Sikaflex® CR 195 comes ready to use. Apply using a professional-grade caulking gun. Do not open cartridges, ProPaks, or pails until preparatory work has been completed.
2. Fill joints from the deepest point to the surface by holding an appropriately sized nozzle against the back of the joint.
3. Dry tooling is recommended. Proper tooling results in the correct bead shape, neat joints, and optimal adhesion.

CLEANING OF TOOLS

1. Immediately after use, clean equipment with SikaSwell®-990 or xylene. Use proper precautions when handling solvents.
2. Remove cured sealant by cutting with a sharp-edged tool.
3. Remove thin films by abrading.

LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or 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 label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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