

Product Information

Silicone Seal

DOW CORNING

Dow Corning® 123 Silicone Seal

FEATURES

- Economical, high-performance alternative to cutting-out and recaulking existing failed weatherproofing sealants
- Extremely low-modulus alternative to wet sealants
- High-movement seal capable of +200/-75 percent joint movement
- High-shear movement seal capable of handling specified live loads, wind sway and seismic movements in a properly designed joint
- SWRI-validated performance
- Ability to provide a complete weatherseal system when used with *Dow Corning® AllGuard Silicone Elastomeric Coating*
- Available in custom designs to allow easier application and smoother transitions
- Available in matte and textured finish (similar to EIFS)

COMPOSITION

- Preformed silicone elastomer extrusion

Preformed silicone seal for weatherproofing applications

APPLICATIONS

Dow Corning® 123 Silicone Seal is specifically designed for use in repair of failed construction joints and glazing details due to design error, field failure or when the life span of sealants and gaskets has expired. It can be used in a variety of applications such as:

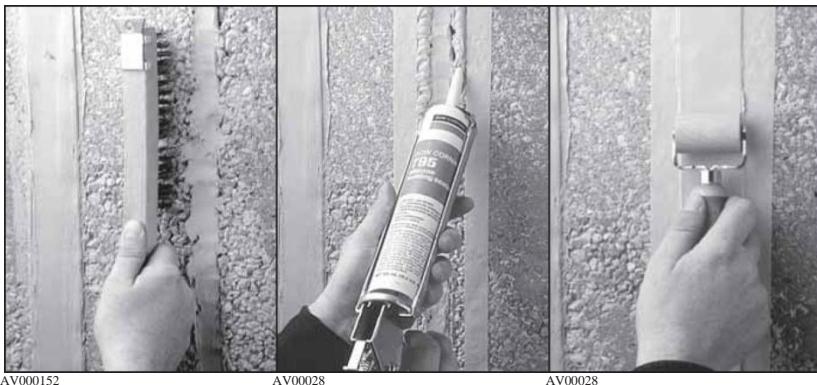
- An economical, high-performance alternative to cutting-out and recaulking existing failed weatherproofing sealants
- A restoration joint on EIFS at both the EIFS-to-EIFS joints and window perimeter joints
- An aluminum splice in high-performance window and curtainwall applications
- A high-performance flexible flashing material ideal for maintenance crews
- A uniform-looking parapet or coping joint
- A leak-free transition seal
- A seal for leaking skylights

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test	Property	Unit	Result
As Supplied – Cured Rubber Extrusion			
ASTM D 412	Durometer Hardness, Shore A	points	25
ASTM D 412	Tensile Strength	psi (MPa)	400 (2.75)
ASTM D 412	Elongation	percent	400
	Tear Strength, die B	ppi (kN/m)	100 (17.5)
21 Day Sealant Cure – $\frac{1}{2}$" (13-mm) Joint With $\frac{1}{2}$" (38-mm) Wide <i>Dow Corning 123 Silicone Seal</i> Bonded with <i>Dow Corning® 795 Silicone Building Sealant</i>			
ASTM C 1135 ¹	Ultimate Strength	psi (MPa)	4 (0.275)
ASTM C 1135	Ultimate Elongation	percent	800
ASTM C 1135	Stress at 25% Elongation	psi (MPa)	3.0 (0.021)
		pli (N/m)	1.5 (263)
ASTM C 1135	Stress at 50% Elongation	psi (MPa)	5.0 (0.034)
		pli (N/m)	2.5 (438)
ASTM C 1135	Stress at 50% Compression	psi (MPa)	<5 (0.034)
		pli (N/m)	<2.5 (438)
ASTM C 719	Movement Capability	percent	+200/-75
Unprimed Adhesion of <i>Dow Corning 795 Silicone Building Sealant</i> to <i>Dow Corning 123 Silicone Seal</i>			
ASTM C 794	Peel Strength, <i>Dow Corning 795 Silicone Building Sealant</i>	pli (N/m)	25 (4.38)

¹ASTM C 1135 and C 719 modifications used the joint configuration shown in Figure 1.



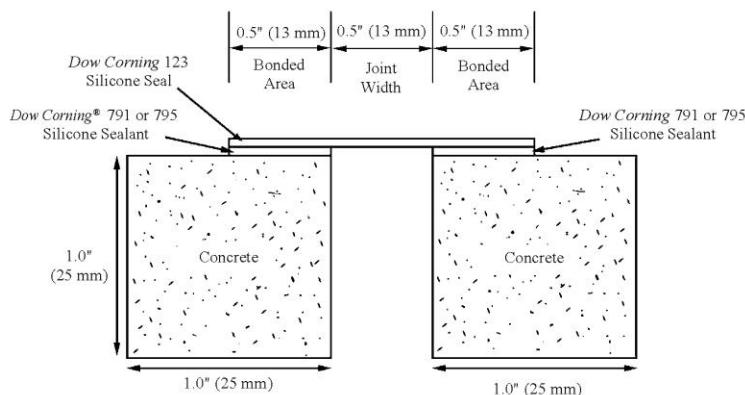
AV000152

AV00028

AV00028

Dow Corning 123 Silicone Seal is easily applied: prepare the substrate around the failed sealant; apply *Dow Corning* 795 Silicone Building Sealant; and apply *Dow Corning* 123 Silicone Seal.

Figure 1: Joint Configuration Modifications of ASTM C 1135 and C 719 Tests Used for Determining Typical Properties Using 1½" (38-mm) Wide *Dow Corning* 123 Silicone Seal



DESCRIPTION

Dow Corning 123 Silicone Seal is a preformed, ultra-low modulus silicone extrusion that is bonded to substrates using *Dow Corning*® 791 Silicone Perimeter Sealant or *Dow Corning* 795 Silicone Building Sealant.¹ Easy-to-install *Dow Corning* 123 Silicone Seal can be used in both new and remedial construction applications.

Dow Corning 123 Silicone Seal is available in the following standard colors: black, white, grey, bronze, limestone and sandstone. This product is also available in custom colors (1000 linear feet [305 m] minimum).

The same color of *Dow Corning* 791 or 795 Silicone Sealant should be used to bond the seal to the substrate.

In addition to standard and custom colors, *Dow Corning* 123 Silicone Seal is also available in a textured finish. The color or texture can also be altered at the job site using *Dow Corning* AllGuard Silicone Elastomeric Coating.

In addition to custom colors, *Dow Corning* 123 Silicone Seal is also available in custom extrusions with grooves to facilitate bending and dimensional shapes. These

¹Other *Dow Corning*® brand sealants may be recommended depending on the installation requirements

shapes may be custom designed to fit mullion and window systems and to work with the flat strips to provide improved aesthetics as well as maximum weatherproofing protection. Contact your *Dow Corning* Sales Application Engineer to discuss your design concepts and learn how they can be captured in long-lasting silicone materials.

HOW TO USE

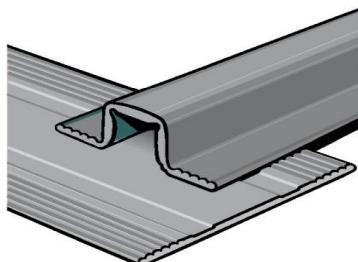
Dow Corning 123 Silicone Seal must be bonded to clean, dry, frost-free, dust-free substrates using *Dow Corning* 791 or 795 Silicone Sealant. Field adhesion testing should be done to determine if primer is required for proper adhesion of *Dow Corning* 791 or 795 Silicone Sealant to the substrate.¹

Preparation Work

Porous surfaces should be cleaned with abrasion cleaning followed by blasts of oil-free compressed air. If high-pressure water cleaning is necessary, use caution to prevent water from entering the structure through the existing failed joint. Exterior surfaces must be visibly dry before installing *Dow Corning* 123 Silicone Seal.

Nonporous surfaces should be cleaned using the two-cloth solvent wipe as outlined in *Dow Corning*'s sealant application guidelines.

Masking Apply masking tape in areas of high visibility to ensure good aesthetics (see Figure 2).



Dow Corning 123 Custom Designs are available to meet aesthetic and weathersealing needs with a single product.

Figure 2: Recommended Joint Design Using Dow Corning 123 Silicone Seal and Dow Corning 795 Silicone Building Seal

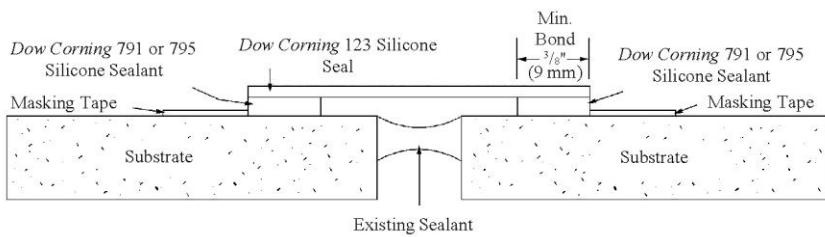
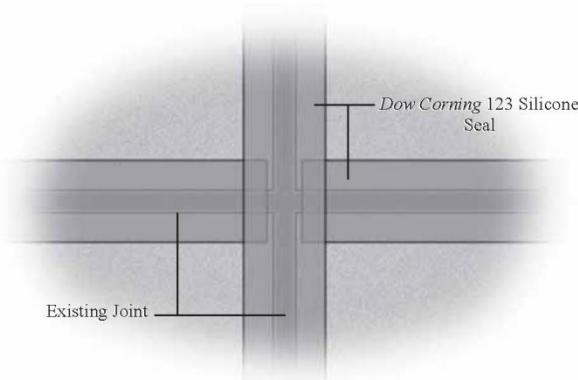
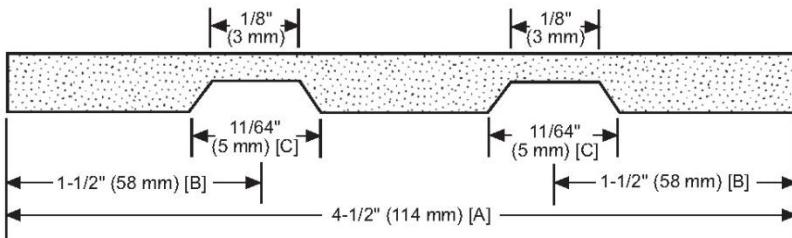


Figure 3: Overlapping Vertical Application of Dow Corning 123 Silicone Seal Over the Horizontal Seal



Note: Vertical strips must overlap horizontal strips of *Dow Corning 123 Silicone Seal*.

Figure 4: Example Sketch of a Custom Design



Design indicates:

- Total width (A).
- Placement of grooves (B), specifying the distance from the strip's edge to the center of the grooves.
- Width of grooves (C). Unless specified otherwise, these are $1\frac{1}{64}$ " (5 mm) wide. All grooves will be $\frac{1}{32}$ " (1 mm) deep.

Application

Apply a bead of *Dow Corning 791* or *795* Silicone Sealant to each side of the joint according to the following schedule:

<u>Substrate</u>	<u>Coverage linear ft (m)/tube</u>	<u>Bead Size</u>
Rough	20-40 (6-12)	$\frac{1}{4}$ " (6 mm)
Smooth	70-120 (21-37)	$\frac{1}{8}$ " (3 mm)

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: *Dow Corning Corp*

Product: 123 Silicone Seal Pre-Cured Seal

ASTM C 1523-10: Determining Modulus, Tear and Adhesion Properties of Pre-cured Elastomeric Joint Sealants

Movement, Cohesion & Adhesion: 200%

Dry/Room Temperature Loss of Adhesion/Cohesion

Pass ✓

Water Immersion Loss of Adhesion/Cohesion

Pass ✓

Frozen Loss of Adhesion/Cohesion

Pass ✓

Heat Loss of Adhesion/Cohesion

Pass ✓

Artificial Weathering Loss of Adhesion/Cohesion

Pass ✓

Tear Propagation: T-Tear

ASTM D 412: Vulcanized Rubber and Thermoplastic Elastomers - Tension

Ultimate Elongation Results: 452%

Validation Date: 12/28/11 – 12/27/16

No. 1228-1231216

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PRE-CURED SEALANTS VALIDATION

www.swrionline.org

Note: Rough surfaces will require larger beads of sealant to seal the valleys of the substrate. The sealant should be applied approximately $\frac{1}{4}$ " (6 mm) inside the masking tape on both sides of the joint. The minimum bonded area must be at least $\frac{3}{8}$ " (9 mm) (see Figure 2).

Within 10 minutes of sealant application, press the extrusion into the sealant to wet the extrusion, substrate and sealant. A roller can be used to apply consistent pressure to ensure uniform contact. The ridges on the back of *Dow Corning 123 Silicone Seal* will help ensure proper sealant coverage.

Horizontal joints must be completed before application of vertical joints. Vertical joints should be lapped over the horizontal joints as shown in Figure 3.

At the end of the joint, cut the extrusion with a razor knife

Clean-Up

Remove masking tape and excess sealant.

Maintenance

No maintenance should be needed. The surface can be cleaned with soap and water.

If the seal becomes damaged, replace the damaged portion.

Dow Corning 791 or 795 Silicone Sealant will adhere to the existing *Dow Corning* 123 Silicone Seal with only a preparatory solvent wipe to remove accumulated dirt.

HANDLING PRECAUTIONS

PRODUCT SAFETY

INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEB SITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

PACKAGING INFORMATION

Dow Corning 123 Silicone Seal is available in 100-foot rolls.

Standard stocked sizes include widths of 1", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ ", 3", 4", 5" and 6" (25, 38, 51, 64, 76, 102, 127 and 152 mm) in black, white, grey, bronze, limestone and sandstone colors. Standard, but non-stock sizes, include widths of 3 $\frac{1}{2}$ ", 4 $\frac{1}{2}$ " and 5 $\frac{1}{2}$ " (89, 114 and 140 mm) in all colors. All sizes of blue spruce, dusty rose, adobe tan,

charcoal and rustic brick are non-stock items. Custom sizes are available in 1 to 6" (25 to 152 mm) in 0.5" (13 mm) increments, and 7 to 12" (178 to 305 mm) in 1" (25 mm) increments.

LIMITATIONS

Dow Corning 123 Silicone Seal is not intended for use:

- With *Dow Corning*® 790 Silicone Building Sealant as an adhesive
- With non-*Dow Corning*® sealants or acetoxy cure silicone sealants as the bonding sealant
- In below-grade applications

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our Web site, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall

not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

We help you invent the future.™

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