Technical Data Sheet

DOWSIL™ 123 Silicone Seal

Preformed silicone seal for weatherproofing applications

Features & Benefits

- 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 DOWSIL™ 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

Applications

DOWSIL™ 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

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Form No. 62-469-01 M

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test[1]	Property	Unit	Result
	As Supplied – Cured Rubber Extrusion		
ASTM D 2240	Durometer Hardness, Shore A	points	25
ASTM D 412	Tensile Strength	psi (MPa)	40 (0.28)
ASTM D 412	Elongation	percent	400
	Tear Strength, die B	ppi (kN/m)	100 (17.5)
	21 Day Sealant Cure – 1/2" (13-mm) Joint With 1 1/2" (38-mm) Wide DOWSIL™ 123 Silicone Seal Bonded with DOWSIL™ 795 Silicone Building Sealant		
ASTM C 1135[2]	Ultimate Strength	psi (MPa)	40 (0.275)
ASTM C 1135	Ultimate Elongation	percent	800
ASTM C 1135	Stress at 25% Elongation	psi (MPa) pli (N/m)	3.0 (0.021) 1.5 (263)
ASTM C 1135	Stress at 50% Elongation	psi (MPa) pli (N/m)	5.0 (0.034) 2.5 (438)
ASTM C 1135	Stress at 50% Compression	psi (MPa) pli (N/m)	< 5 (0.034) < 2.5 (438)
ASTM C 719[2]	Movement Capability	percent	+200/-75
	Unprimed Adhesion of DOWSIL™ 795 Silicone Building Sealant to DOWSIL™ 123 Silicone Seal		
ASTM C 794	Peel Strength, DOWSIL™ 795 Silicone Building Sealant	pli (N/mm)	25 (4.38)

1. ASTM: American Society for Testing and Materials
2. ASTM C 1135 and C 719 modifications used the joint configuration shown in Figure 1

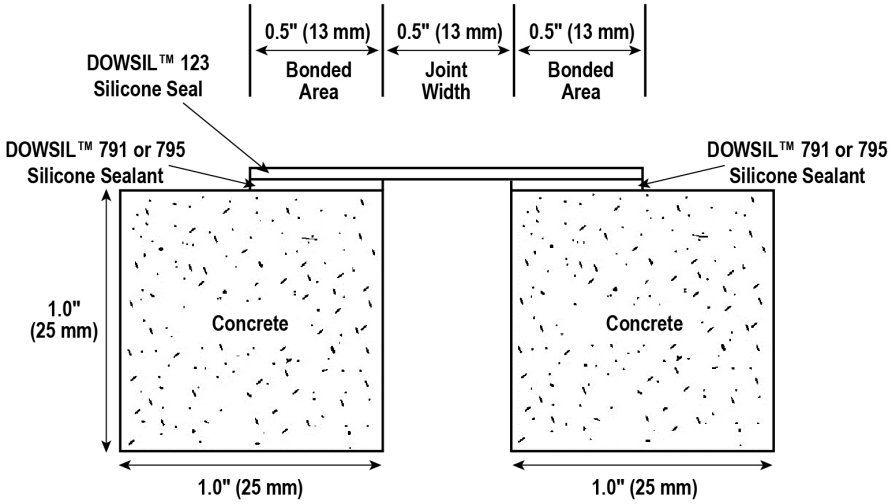

Figure 1

Joint Configuration Modifications of ASTM C 1135 and C 719 Tests Used for Determining Typical Properties Using 1 1/2" (38 mm) Wide DOWSIL™ 123 Silicone Seal.

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Description

DOWSIL™ 123 Silicone Seal is a preformed, ultra-low modulus silicone extrusion that is bonded to substrates using DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant.[1] Easy-to-install DOWSIL™ 123 Silicone Seal can be used in both new and remedial construction applications.

DOWSIL™ 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 DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant should be used to bond the seal to the substrate.

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

In addition to custom colors, DOWSIL™ 123 Silicone Seal is also available in custom extrusions with grooves to facilitate bending and dimensional shapes. These 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 sales application engineer to discuss your design concepts and learn how they can be captured in long-lasting silicone materials.

How to Use

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

1. Other DOWSIL™ sealants may be recommended depending on the installation requirements.

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 DOWSIL™ 123 Silicone Seal.

Nonporous surfaces should be cleaned using the two-cloth solvent wipe as outlined in our sealant application guidelines. Masking Apply masking tape in areas of high visibility to ensure good aesthetics (see Figure 2).

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How to Use (Continued)

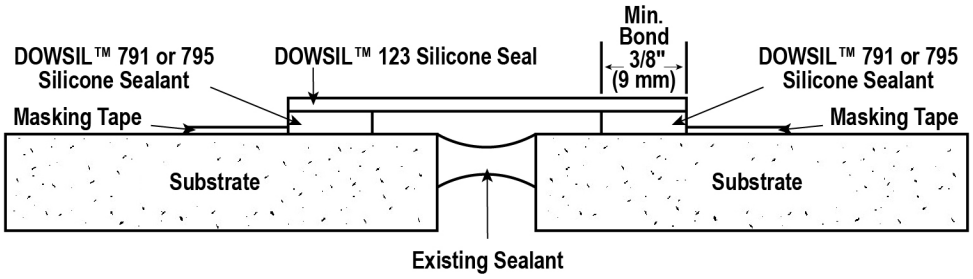
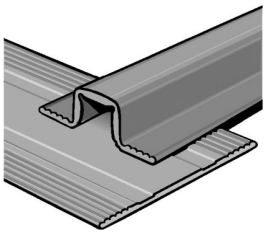


Figure 2
Recommended Joint Design Using DOWSIL™ 123 Silicone Seal and DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant.



DOWSIL™ 123 Silicone Seal custom designs are available to meet aesthetic and weathersealing needs with a single product.

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: **Dow Silicones Corporation**
Product: Dowsil™ 123 Silicone 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: 503%

Validation Date: 9/20/16 – 9/19/21
No. 916-1230921 *Copyright © 2016*

PRE-CURED SEALANTS VALIDATION
www.swrionline.org

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How to Use (Continued)

Application

Apply a bead of DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant to each side of the joint according to the following schedule:

Substrate	Coverage linear ft (m)/tube	Bead Size
Rough	20–40 (6–12)	1/4" (6 mm)
Smooth	70–120 (21–37)	1/8" (3 mm)

Note: Rough surfaces will require larger beads of sealant to seal the valleys of the substrate. The sealant should be applied approximately 1/4" (6 mm) inside the masking tape on both sides of the joint. The minimum bonded area must be at least 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 DOWSIL™ 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.

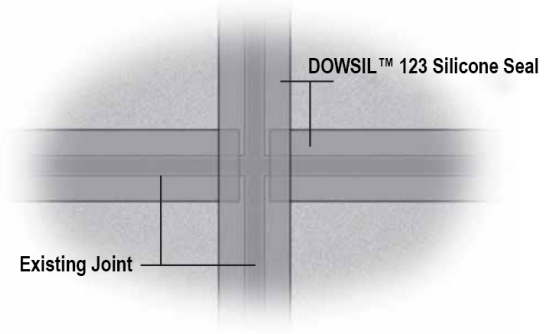
Clean-Up

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. DOWSIL™ 791 Silicone Weatherproofing Sealant or DOWSIL™ 795 Silicone Building Sealant will adhere to the existing DOWSIL™ 123 Silicone Seal with only a preparatory solvent wipe to remove accumulated dirt.



Note: Vertical strips must overlap horizontal strips of DOWSIL™ 123 Silicone Seal.

Figure 3

Overlapping Vertical Application of DOWSIL™ 123 Silicone Seal Over the Horizontal Seal.

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Handling Precautions

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Packaging Information

DOWSIL™ 123 Silicone Seal is available in 100 foot rolls. Standard stocked sizes include widths of 1", 1 1/2", 2", 2 1/2", 3", 4", 5" and 6" (25, 38, 51, 64, 76, 102, 127 and 152 mm) in black (also stocked in 12"), white, grey, bronze, limestone and sandstone colors. Standard, but non-stock sizes, include widths of 3 1/2", 4 1/2" and 5 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

DOWSIL™ 123 Silicone Seal is not intended for use:

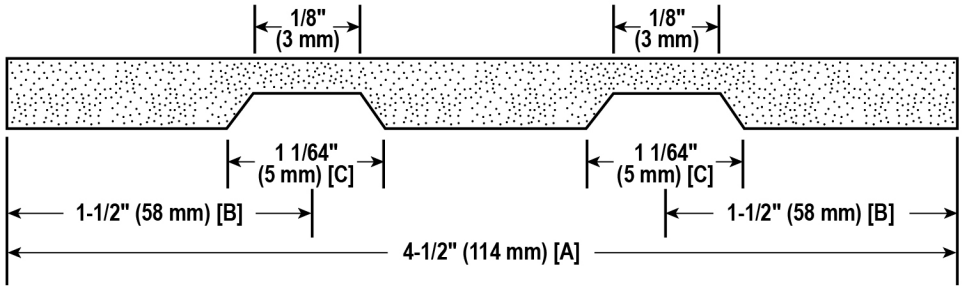
- With DOWSIL™ 790 Silicone Building Sealant as an adhesive
- With non-DOWSIL™ sealants or acetoxy cure silicone sealants as the bonding sealant
- In below-grade applications

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 has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.



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 1/64" (5 mm) wide. All grooves will be 1/32" (1 mm) deep.

Figure 4
Example Sketch of a Custom Design.

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