

UltraSpan* US1100

pre-cured silicone weatherstrip

Product Description

UltraSpan US1100 is a low modulus pre-cured silicone rubber weatherstrip and is an excellent candidate to consider for use in new and remedial sealing, splicing, flashing, roofing applications, and oversealing of failed building sealants. UltraSpan can provide a long lasting, durable, watertight weatherseal as a primary or a secondary seal over moving and non-moving joints. UltraSpan can be applied in the field or factory and bonded to a wide variety of construction materials.

Typical Performance Properties

- **Silicone Durability** – Pre-cured weatherstrip exhibits excellent long-term resistance to natural weathering, including: ultraviolet radiation, high and low temperatures, rain and snow, with negligible change in elasticity performance.
- **High Performance Rubber** – The Low Modulus (+200%) movement capability can reduce strain on substrate surfaces and can accommodate seismic movements, live loads, and absorb large amounts of elongation while providing excellent recovery from high movement construction joints.
- **Silicone Compatibility** – Compatible with all GE silicone sealants allowing UltraSpan to be adhered to a wide range of construction materials.
- **Product Versatility** – Achieve a complete warrantable weatherseal system when used in combination with GE SilShield* SEC2400 Silicone Architectural Coating and GE SilPruf* family of sealants.
- **Unique Ridged Profile** – Control sealant thickness and reduce squeeze-out for cleaner installation and improved application quality.
- **Product Offering** – Available in a variety of standard sizes from 1 to 5 inch widths in 100 ft. rolls. Available in custom colors and flat sheets, up to 48 inches in width.
- **Potential Reduced Labor Cost** – An economical alternative to cast-in-place wet-seals or cutting out and reinstalling existing failed building sealants.
- **Thermal Stability** – Remains elastic over a wide range of temperature differentials of common building systems or facades -55°F (-48°C) to 400°F (93°C).

Momentive Performance Materials is an exclusive licensee of General Electric. Momentive Performance Materials provides versatile materials as the starting point for its creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications.

We are helping customers solve product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical

devices. From helping to develop safer tires and keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.



Exclusive
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Basic Uses

- UltraSpan may be suitable for use as a weatherproofing splice material for building repair and restoration of existing failed building sealants.
- UltraSpan may be suitable for use when repairing failed sealants in building joints, leaking skylights, flashing, parapets, window perimeter joints and on EIFS.
- UltraSpan may be suitable for use on internal curtainwall frames and high movement splice areas.

Packaging

UltraSpan is available in 100 foot rolls. Standard widths are: 1", 1.5", 2", 3", 4", and 5". Custom UltraSpan is available in flat sheets up to 48 inches. Minimums apply.

Colors

UltraSpan is available in 8 standard colors, translucent, and can be custom colored.

Grade	Color
US1101	Translucent
US1102	White
US1103	Black
US1104	Limestone
US1108	Light Grey
US1109	Aluminum
US1110	Dark Grey
US1120	Precast White
US1197	Bronze

ULTRASPAN PRODUCT DESIGNATION BY WIDTH AND COLOR

Overall Width Code	Overall Width	Working Width	UltraSpan Color and Width Guide							
			White	Black	Limestone	Light Gray	Aluminum	Dark Gray	Precast White	Bronze
10	1 inch	0.4 inches	US1102-10	US1103-10	US1104-10	US1108-10	US1109-10	US1110-10	US1120-10	US1197-10
15	1.5 inches	0.5 inches	US1102-15	US1103-15	US1104-15	US1108-15	US1109-15	US1110-15	US1120-15	US1197-15
20	2 inches	1 inch	US1102-20	US1103-20	US1104-20	US1108-20	US1109-20	US1110-20	US1120-20	US1197-20
30	3 inches	2 inches	US1102-30	US1103-30	US1104-30	US1108-30	US1109-30	US1110-30	US1120-30	US1197-30
40	4 inches	3 inches	US1102-40	US1103-40	US1104-40	US1108-40	US1109-40	US1110-40	US1120-40	US1197-40
50	5 inches	4 inches	US1102-50	US1103-50	US1104-50	US1108-50	US1109-50	US1110-50	US1120-50	US1197-50

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Limitations

UltraSpan is not recommended:

- For use underwater or in other applications where the product will be in continuous contact with water.
- For use in food contact applications.
- When painting of the cured weather strip is desired (unless GE SilShield* SEC2400 Architectural Wall Coating is used).
- Where frequent abrasion or physical abuse is encountered in joints on or below grade.

Precautions

Some materials that bleed plasticizers or oils can cause a discoloration on the surface of silicone weatherstrip. When sealing to or over such substrates as: rubberized gaskets, bituminous-based materials, butyl or oil-based products, oily woods, tapes, etc. Compatibility testing is recommended prior to use to confirm the suitability of these materials when in contact with each other.

Technical Services

Additional technical information and literature may be available. Contact Technical Services or a representative. Laboratory testing and application engineering are available upon request.

Specifications

Typical property values of UltraSpan US1100 as supplied and installed are set forth in the tables below.

Typical Properties – Supplied

Property	Value ⁽¹⁾	Test Method
Consistency	Pre-cured silicone rubber	

Typical Properties – Cured

Property	Value ⁽¹⁾	Test Method
Hardness, Durometer (Type A Indentor)	33	ASTM D2240
Ultimate Tensile Strength	800 psi (5.52 MPa)	ASTM D412
Ultimate Elongation	500%	ASTM D412
Tensile Strength, die B	100 ppi	ASTM D624
Tensile at 50% Elongation	8.4 psi (0.058 MPa)	Internal Test ⁽²⁾
Tensile at 100% Elongation	12 psi (0.083 MPa)	Internal Test ⁽²⁾
Joint Movement Capability	+200/-100%	ASTM C719
Service Temperature Range	-55°F (-48°C) to +400°F (98°C)	

(1) Average value. Actual value may vary.

(2) Contact Technical Services for a description of the test method.

Applicable Standards

UltraSpan US1100 meets or exceeds the requirements of the following specifications:

American Society for Testing & Materials International

ASTM C1518 Standard Specification for Precured Elastomeric Silicone Joint Sealants; Movement Class 200, Tear Class PT.

UltraSpan US1100 carries SWR Institute validation @ +200% movement with Partial / Knotty Tear (PT) characteristics.

SEALANT • WATERPROOFING & RESTORATION INSTITUTE

Issued to: **GE Advanced Materials**
Product: UltraSpan US 1100 Silicone Weatherstrip

ASTM C 1523: 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: PT (Partial/Knotty Tear)

ASTM D 412: Vulcanized Rubber and Thermoplastic Elastomers - Tension

Ultimate Elongation Results: 650% (500%+)

Validation Date: 7/17/06 - 7/16/11
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PRE CURED SEALANTS VALIDATION
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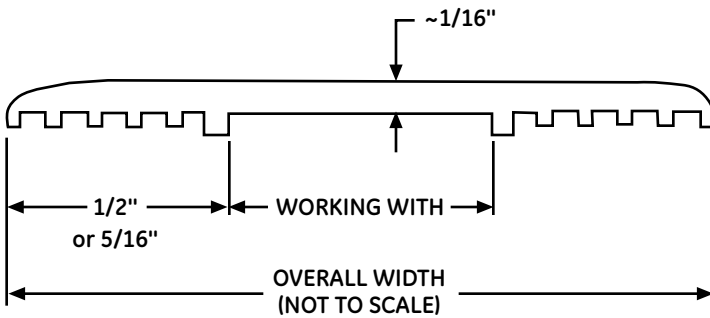
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Joint Designs and Dimensions

Joint Movement – All moving (dynamic) joints must not allow movement in excess of the performance properties of the UltraSpan US1100 pre-cured weatherstrip.

Joint Width – When using UltraSpan US1100, refer to the nominal working width data below. The nominal working width is the largest joint width which can be covered with UltraSpan US1100. Refer to Figure below.

Nominal Overall Width (inches)	Nominal Working Width (inches)
1	0.4
1.5	0.5
2	1
3	2
4	3
5	4



"WORKING WIDTH" is the largest joint width that can be covered.

Installation

For surface preparation and cleaning procedures, refer to the technical data sheet of the sealant being used to apply UltraSpan.

Weatherstrip Application

A sealant may be applied to either the UltraSpan and/or the substrate surfaces as shown in Figures 1-3.

Apply two appropriate sized beads of sealant in sufficient amount to fill the grooved areas on the UltraSpan. Typically, a 1/8" to 3/8" bead will be sufficient but rougher surfaces may require a larger amount.

- Seat the UltraSpan into the sealant using hand pressure. As the UltraSpan is seated, the sealant should fill the channels, usually a small amount of adhesive squeezes out alongside the UltraSpan.
- Small adjustments to the placement of UltraSpan may be done at this time, but lifting the UltraSpan and re-seating should be avoided as removing and re-seating may require additional sealant.
- Use a small roller to apply sufficient pressure to the UltraSpan to bond the part into its final location.
- Tool excess sealant and if masking tape was used, remove masking tape immediately.
- If mitered or field cut corners are used, apply enough sealant under the corner joint so the squeeze-out fills the miter joint.
- Apply masking tape in areas of high visibility to ensure good aesthetics.
- Horizontal joints must be completed before application of vertical joints.

Figures 1-3

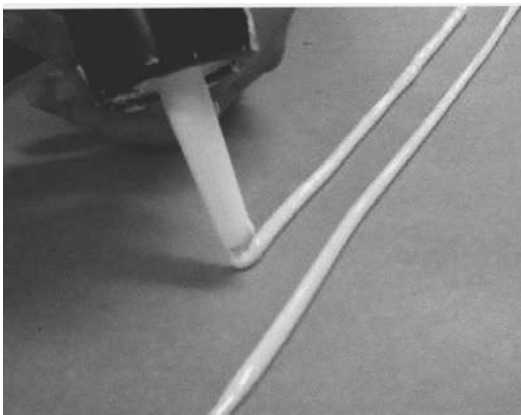


Figure 1 - Dispense silicone onto substrate.

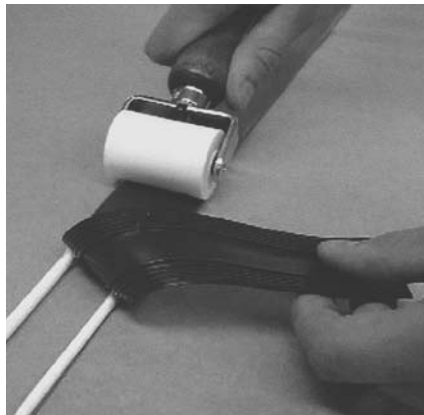


Figure 2 - Place weatherstrip into silicone and seat UltraSpan US1100 silicone weatherstrip using a roller.

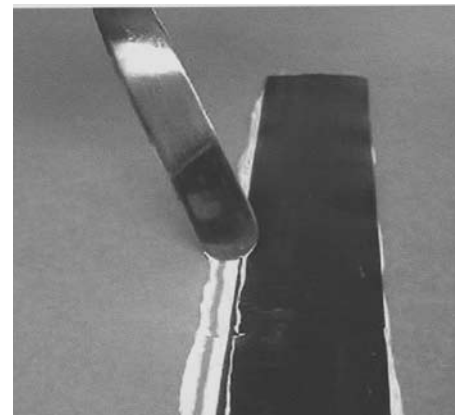


Figure 3 - Tool excess silicone from squeeze-out and if masking tape was used remove immediately. (Masking tape must be removed before silicone skins over, usually within 20 minutes of dispensing.)

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Availability

Information on ordering US1100 and/or custom shapes can be obtained from Momentive Performance Materials,¹ Waterford, NY or an authorized GE construction sealants product distributor. For information regarding cost or for available project warranty information, contact your local distributor or Momentive Performance Materials¹ Territory Manager. Contact Customer Service at: 877-943-7325.

Government Requirement

Prior to considering use of a Momentive Performance Materials¹ silicone product in fulfilling any government requirement, please contact the Government and Trade Compliance office.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials¹ representative. Use of other materials in conjunction with Momentive Performance Materials¹ products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Emergency Service

Momentive Performance Materials¹ maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC), Transport Canada (CANUTEC), and the Chemical Emergency Agency Service also maintain an around-the-clock emergency service for all chemical products:

Location	GE Branded Products	All Chemical Products
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Canada	518.233.2500	CANUTEC: 613.996.6666 (collect) or CHEMTREC: 800.424.9300
Europe, Middle East, Africa	+32.(0)14.58.45.45 (Belgium)	CHEMTREC: +1-703.527.3887 (collect)
Latin America, Asia/Pacific, all other locations worldwide	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials ¹ at 518.233.2500	CHEMTREC: 800.424.9300

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

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