

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 US1100 can provide a long lasting, durable, watertight weatherseal as a primary or a secondary seal over moving and non-moving joints. UltraSpan US1100 can be applied in the field or factory and bonded to a wide variety of construction materials.

Key Features and Typical Benefits

- **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 silicone sealants allowing UltraSpan US1100 to be adhered to a wide range of construction materials.
- **Product Versatility** – Achieve a complete warrantable weatherseal system when used in combination with SilShield™ SEC2400 Silicone Architectural Coating and 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).

Potential Applications

- UltraSpan US1100 may be suitable for use as a weatherproofing splice material for building repair and restoration of existing failed building sealants.
- UltraSpan US1100 may be suitable for use when repairing failed sealants in building joints, leaking skylights, flashing, parapets, window perimeter joints and on EIFS.
- UltraSpan US1100 may be suitable for use on internal curtainwall frames and high movement splice areas.

Packaging

UltraSpan US1100 is available in 100 foot rolls. Standard widths are: 1", 1.5", 2", 3", 4", and 5". Custom UltraSpan US1100 is available in flat sheets up to 48 inches. Minimums apply.

Colors

UltraSpan US1100 is available in 8 standard colors, translucent, and can be custom colored.

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

Colors - continued

ULTRASPAN US1100 PRODUCT DESIGNATION BY WIDTH AND COLOR

| Overall Width Code | Overall Width | Working Width | UltraSpan US1100 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 |

Typical Physical Properties

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 Indenter) | 35 +/- 5 | ASTM D2240 |
| Ultimate Tensile Strength | 780 psi (5.38 MPa) | ASTM D412 |
| Ultimate Elongation | 550% | ASTM D412 |
| Tear Strength, die B | 126 ppi | ASTM D624 |
| Tensile at 50% Elongation | 73 psi (0.50 MPa) | Internal Test ⁽²⁾ |
| Tensile at 100% Elongation | 101 psi (0.69 MPa) | Internal Test ⁽²⁾ |
| Joint Movement Capability | +200/-100% | ASTM C719 |
| Service Temperature Range | -55°F (-48°C) to +400°F (98°C) | |

(1) Typical properties are average data and are not to be used as or to develop specifications.

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

Installation

For surface preparation and cleaning procedures, refer to the technical data sheet of the sealant being used to apply UltraSpan US1100.

Weatherstrip Application

A sealant may be applied to either the UltraSpan US1100 and/or the substrate surface.

Apply two appropriate sized beads of sealant in sufficient amount to fill the grooved areas on the UltraSpan US1100. Typically, a 1/8" to 3/8" bead will be sufficient but rougher surfaces may require a larger amount.

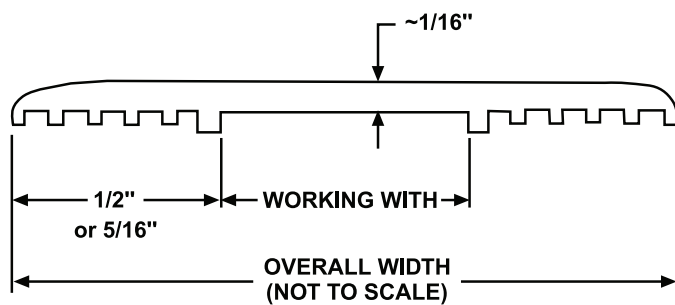
- Seat the UltraSpan US1100 into the sealant using hand pressure. As the UltraSpan US1100 is seated, the sealant should fill the channels, usually a small amount of adhesive squeezes out alongside the UltraSpan US1100.
- Small adjustments to the placement of UltraSpan US1100 may be done at this time, but lifting the UltraSpan US1100 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 US1100 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.

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.

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.

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.

Limitations

UltraSpan US1100 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 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.

Availability

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

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.siliconesforbuilding.com or, upon request, from any MPM representative. Use of other materials in conjunction with MPM sealants products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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