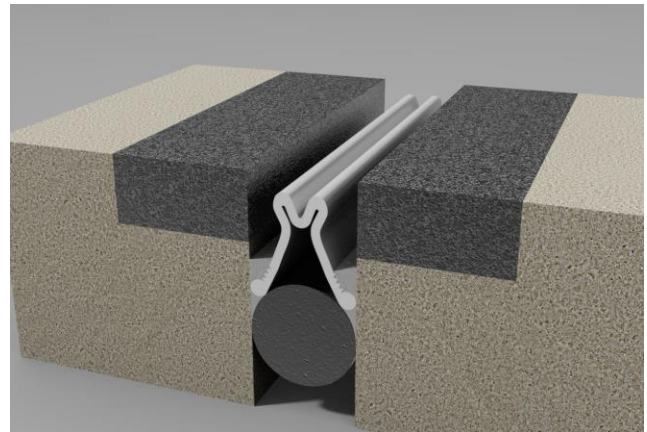


WaboCrete® SPS

Preformed Silicone Joint Seal System and Elastomeric Concrete Expansion Joint System

| Features | Benefits |
|---|--|
| <ul style="list-style-type: none"> • Silicone Profile and Adhesive | Components bond with virtually no degradation over decades of weather exposure |
| <ul style="list-style-type: none"> • Flexible Movement Range | Withstands the wide range of joint openings & movements found in a bridge expansion joint |
| <ul style="list-style-type: none"> • Environmentally and Chemically Resistant Seal | Chemically inert and unaffected by exposure, ultraviolet light, weather or extreme temperatures -55° F (-48° C) to 400° F (204° C) |
| <ul style="list-style-type: none"> • High Traffic Loads | High bond capability accommodates variety of field conditions |
| <ul style="list-style-type: none"> • Fast Curing | Short traffic closures. Traffic can be received depending on temperature, typically within one hour of completion |



DESCRIPTION:

The WaboCrete® SPS expansion joint system is a preformed silicone joint sealing system installed with a two component polyurethane expansion joint header. The system is designed to accommodate movements and varying joint widths on bridges and other civil structures requiring water tightness of expansion joints.

The seal's low stress design and silicone properties are virtually unchanged with time or environment when compared to more commonly used elastomers such as EPDM or polychloroprene. WaboCrete® II absorbs traffic impact loads and evenly disperses them into the deck, while allowing the system to flex with deck loads. The flexible header of WaboCrete® II coupled with Wabo®SPS seal make it an ideal expansion joint system for the new construction or repair of existing joints.

Ideally suited for both new construction and retrofitting of existing expansion joints, the WaboCrete® SPS system is a durable quick turnaround solution for sealing deck joints.

RECOMMENDED FOR:

- Sealing bridge deck joints
- Retrofitting expansion joints requiring repair of existing joint header/nosing
- Joint applications with varying joint widths
- Expansion joints requiring movement ratings up to 5 inches



PACKAGING/COVERAGE:

- Wabo®SPS silicone seal is custom packaged to specific lengths.
- Wabo®Sil Adhesive, a one part sealant and adhesive is supplied in 29 oz cartridges.
- WaboCrete® II:
 - PTA – ½ gal container
 - PTB – 1 gal container
 - PTC – 60 lbs aggregate
- Wabo®Bonding Agent:
 - Part A – 1 qt
 - Part B – 1 qt

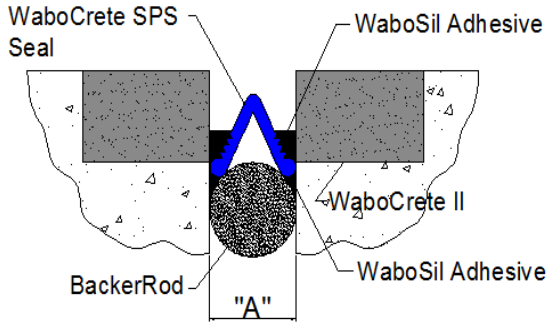
Wabo®Sil Adhesive Coverage

| JOINT SYSTEM | YIELD/UNIT (29 oz Cartridge) |
|--------------|---------------------------------|
| Wabo®SPS-150 | 9 LF (2.7m) |
| Wabo®SPS-225 | 9 LF (2.7m) |
| Wabo®SPS-400 | 5 LF (1.5m) |
| Wabo®SPS-500 | 5 LF (1.5m) |

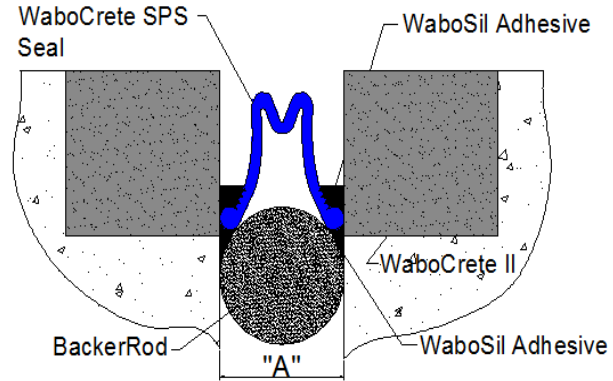
- WaboCrete® Coverage:
 - A+B+C = One Unit
 - One Unit = 1030 cubic inches or 0.6 cubic feet

DESIGN:

The WaboCrete® SPS joint system is specially engineered to be installed in a wide range of joint openings and interface substrates, while accommodating structure movements up to 4 inches. The durable system can handle skewed joint conditions up to 45 degrees.



Wabo®SPS-150 & 225 Series



Wabo®SPS-400 & 500 Series

| Model number | Recommended Minimum Installation Width | Minimum Joint Opening "A" | Maximum Joint Opening "A" | Minimum Groove Installation Depth "B" | Movement Rating (MR) |
|---------------------|--|---------------------------|---------------------------|---------------------------------------|----------------------|
| Wabo®SPS-150 | 1.0" | 0.5" | 2.00" | 2.00" | 1.50" |
| Wabo®SPS-225 | 1.25" | .75" | 3.00" | 2.625" | 2.25" |
| Wabo®SPS-400 | 2.0" | 1.0" | 5.00" | 3.75" | 4.00" |
| Wabo®SPS-500 | 2.0" | 1.5" | 6.50" | 4.75" | 5.00" |



TECHNICAL DATA:

Preformed Silicone Seal Properties:

Wabo®SPS silicone seal is manufactured from a custom extrusion grade organic silicone compound, and is highly resistant to the effects of ultra violet rays and ozone. The seal has an operating temperature range of -55° F (-48° C) to 400° F (204° C), and meets the following physical properties:

Wabo®SPS Profile:

| PHYSICAL PROPERTY | TEST METHOD | REQUIRMENTS |
|----------------------------------|-------------|----------------|
| Color | Visual | Gray |
| Durometer (Shore A) | ASTM D 2240 | 55+/- 5 |
| Tensile Strength | ASTM D 412 | 1000 psi, min |
| Elongation | ASTM D 412 | 400% min |
| Tear Resistance (die B) | ASTM D 624 | 100 lbs/in min |
| Compression Set @ 350° F, 22 hrs | ASTM D 395 | 30% max |

Silicone Adhesive Properties:

Wabo®Sil Adhesive ensures a watertight system by providing a tenacious bond to the silicone seal and most bridge construction adjacent surfaces. It shall meet the following physical properties:

Wabo®Sil Adhesive:

| PHYSICAL PROPERTY | TEST METHOD | REQUIRMENTS |
|-----------------------------|-------------|----------------|
| Color | Visual | Gray |
| Durometer (Shore A) | ASTM D2240 | 25 +/- 5 |
| Elongation | ASTM D412 | 700% min |
| Tensile | ASTM D412 | 250 psi, min |
| Peel Adhesion to substrates | ASTM C 794 | 55 lbs/in min |
| Work Life (tool time) | | 20 -30 minutes |



Elastomeric Concrete Properties

WaboCrete® II is a two-component polyurethane expansion joint header with specialty aggregate, 100% solids material

BINDER ONLY:

| PHYSICAL PROPERTY | TEST METHOD | REQUIRMENTS |
|--|----------------|-----------------|
| Tensile Strength | D 638 | 750 psi min |
| Elongation @ Break | D 638 | 150% min |
| Hardness (Shore D) | D 2240 | 30-49 |
| Compression Set (22 hrs @ 158F) | D 395 Method B | 50 % max |
| Tear Resistance | D 624 | 80 lbs / in max |
| Heat Shrinkage | D 1299 | 1.6% max |
| Oven Aging @ a58F 72 hrs Tensile Strength Elongation | D 638 | 750 psi 150% |

BINDER AND AGGREGATE:

| PHYSICAL PROPERTY | TEST METHOD | REQUIRMENTS |
|--|----------------|---|
| Compressive Strength | D 695 Modified | 220 psi min |
| Resilience @ 5% deflection | D 695 | 90% min |
| Stress @ 5% deflection | D 695 | 800 psi min |
| Compression Set (22 hrs @ 158F) | D 395 Method B | 50 % max |
| Impact Resistance @ -20F (-29C) @ 32 F (0C) @158F (70C) | See Note 1 | No cracks – 7ft-lbs min No cracks – 7ft-lbs min No cracks – 7ft-lbs min |
| Adhesion to Concrete Dry Bond Wet Bond | See Note 2 | 400 psi min 250 psi min |

1 - Modified for compressive properties by performing test at 0.25 in/min.

2 - Specimens are cast discs with a 2.5" diameter and 0.375" thickness. Specimens are conditioned for four hours at test temperatures. A one pound steel ball is dropped onto the center of the specimen through a plastic tube from an initial height of 5 feet. The drop height is increased by 1/2 foot intervals until the specimen cracks.

3 - The briquette is sawed in half so that the cut surface area equals approximately 1 square inch. Surface is blasted and placed in a mold. WaboCrete II is cast against it. Specimen is submerged in water (seven days at room temperature). Using a riehle Briquette tester, failure of the specimen is considered to occur at either the bond interface or within one of the two materials



APPLICATION:

- For newly placed concrete, the joint interface must be dry and clean (free of dirt, coatings, rust, grease, oil, and other contaminants), sound and durable. New concrete must be cured (minimum of 14 days)
- For aged concrete, the joint interface should be sound. Loose, contaminated, weak, spalled, deteriorated and/or delaminated concrete must be removed to sound concrete. Any spalling, voids, or structural cracking at the joint interface must be repaired.
- Concrete substrates must be abrasive blasted to remove all latencies and contaminants which may cause bonding problems. Steel substrates must be sound and abrasive blasted SP-10, near white, immediately prior to installation.
- Wabo® Bonding Agent prevents any inherent moisture in the concrete from interfacing with WaboCrete® II. Maximum moisture content allowed for installation is 5%. Apply Wabo® Bonding Agent (primer) to surface of the properly prepared concrete prior to installation of WaboCrete® II. Do not use Wabo® Bonding Agent on steel substrates
- Thoroughly pre-mix (20 seconds) Part B separately before pouring entire contents of Part B into clean 5-gallon container. Add Part A and mix both components with a power mixer equipped with a butterfly paddle for approximately 30 seconds, or until well blended.
- Slowly add the aggregate component to the mixed liquids and mix until all aggregate is coated (approximately 1 minute). This mix can be poured into the properly prepared blockout, in which the primer is still wet. The material will flow and self-level.
- **Seal Positioning:** A closed cell foam backer rod or foam board is recommended for seal depth positioning. Follow manufacturer's noted groove depth "B" on seal chart.
- **Preformed Silicone Preparation:** Unroll seal and with a clean rag wipe the serrated sidewall and rounded seal lugs with denatured alcohol (supplied by others) to ensure a clean surface for bonding.
- **Preformed Silicone Seal Placement:** Recommended application temperature is 40°F and rising. Apply a continuous 3/8" to 1/2" bead of Wabo® Sil Adhesive to both sides of the joint interface. Apply adhesive approximately 1-1/2" from top of roadway.
- Fold seal and insert into the joint. Release seal and ensure contact with joint interfaces and the adhesive.
- Apply a second bead of adhesive along each side of seal and fill to the top of the serrations. Do not apply adhesive above the serrated areas Tool Wabo® Sil Adhesive, on both sides to ensure the adhesive makes full contact with the seal and substrate.
- WaboCrete® SPS system will be ready to accept traffic within one hour after installation @70°F.



FOR BEST RESULTS:

- Repair any spalls, voids, or structural cracking at the joint interface.
- Do NOT allow any of the chemicals components to freeze prior to installation.
- Store all components out of direct sunlight in a clean, dry location between 50°F (10°C) and 90°F (32°C). Do not store in high humidity.
- Shelf life of chemical components is approximately 12 months. Shelf life of WaboCrete® II is 18 months.
- Do NOT install when surface temperature is less than 40°F (4°C).
- Periodically inspect the applied material and repair localized areas as needed. Consult a Watson Bowman Acme representative for additional information.
- Make certain the most current version of the product data sheet is being used. Please consult the website (www.watsonbowmanacme.com) or contact a customer service representative.
- Proper application is the responsibility of the user. Field visits by Watson Bowman Acme personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

LIMITED WARRANTY:

Watson Bowman Acme Corp. warrants that this product conforms to its current applicable specifications. WATSON BOWMAN ACME CORP. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. The sole and exclusive remedy of Purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of Watson Bowman Acme Corp. Any claims concerning this product shall be submitted in writing within one year of the delivery date of this product to Purchaser and any claims not presented within that period are waived by Purchaser. IN NO EVENT SHALL WATSON BOWMAN ACME CORP. BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDES LOSS OF PROFITS) OR PUNITIVE DAMAGES. Other warranties may be available when the product is installed by a factory trained installer. Contact your local Watson Bowman Acme representative for details. The data expressed herein is true and accurate to the best of our knowledge at the time published; it is, however, subject to change without notice. *Watson Bowman Acme Corp. reserves the right to amend or withdraw any information contained herein without notice and will not be responsible or liable for any inaccuracy or ambiguity of any information contained herein.*

RELATED DOCUMENTS:

- Material Safety Data Sheets
- WaboCrete® SPS Specification
- WaboCrete® SPS Sales Drawings
- WaboCrete® SPS Installation Procedure
- WaboCrete® SPS Joint System Datasheet
- WaboCrete® II Datasheet

OPTIONS/EQUIPMENT:

- Pneumatic Air Gun (for 29 oz cartridges) can be purchased from WBA.
- Closed cell polyethylene backer rod for larger openings to hold the seal in position
- Non-flow additive (sloped conditions)
- Two-inch (2") hand margin trowels
- Use a ¾" heavy duty, slow speed, high torque, drill with an egg-beater (or mud beater) style mixing paddle to mix Wabo®Crete II.
- One clean 5-gallon bucket

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