

# Wabo<sup>®</sup> SPS Joint System- CALTRANS- Bonded Joint Seal

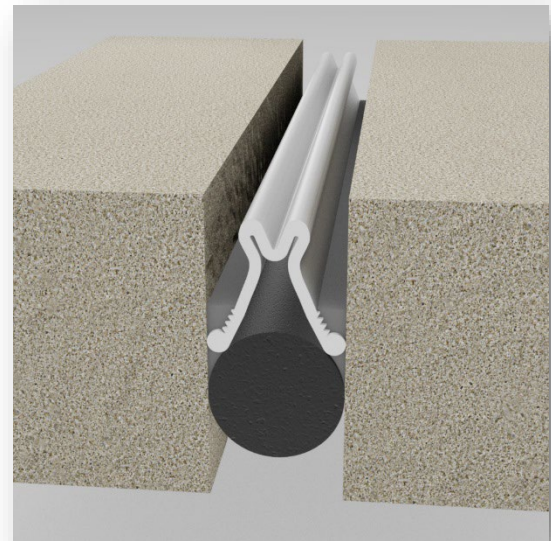
Preformed Silicone Joint Seal System

Features	Benefits
<ul style="list-style-type: none"> <li>• Silicone profile and adhesive</li> </ul>	Components bond with virtually no degradation over decades of weather exposure
<ul style="list-style-type: none"> <li>• Flexible movement range</li> </ul>	Withstands the wide range of joint openings and movements found in a bridge expansion joint
<ul style="list-style-type: none"> <li>• Chemical resistance</li> </ul>	Chemically inert and unaffected by exposure, ultraviolet light, weather or extreme temperatures
<ul style="list-style-type: none"> <li>• Simplicity of installation</li> </ul>	Adapts to varying joint widths and allows for quick joint repairs and short traffic closures No priming of the substrate required
<ul style="list-style-type: none"> <li>• High peel strength adhesive</li> </ul>	Flexible, but high peel strength adhesives provide for assurance of watertight seal
<ul style="list-style-type: none"> <li>• Low VOC</li> </ul>	Exceeds the U.S. Green Building Council's Leadership in Energy and Environmental Design requirements

## DESCRIPTION:

The Wabo<sup>®</sup> SPS Joint System is a preformed silicone joint sealing system designed to accommodate movements and varying joint widths on bridge decks.

The preformed silicone seal is bonded in place with a high performance dual-purpose silicone sealant and adhesive that adheres to concrete, steel, elastomeric concrete and viscoelastic concrete joint interface substrates without the need of a primer.



Ideally suited for the preservation and maintenance of bridge expansion joints, the Wabo<sup>®</sup> SPS Joint System is a durable, quick, all-encompassing solution for sealing deck joints.

## RECOMMENDED FOR:

- Sealing bridge deck expansion joints
- Quick joint repairs, short traffic closures
- Joint applications with varying joint widths
- Expansion joints requiring movement ratings up to 5 inches

## PACKAGING/COVERAGE:

- Maximum shipping lengths:

Seal	Max Length
SPS-150	2,000 ft
SPS- 225	1,000 ft
SPS- 400	1,000 ft
SPS- 500	1,000 ft

**PACKAGING/COVERAGE:**

- Profile: Wabo®SPS profile seal, custom packaged to specific lengths.
- Adhesive: Wabo®SiliconeSeal, a two-part sealant – 50.72 oz cartridge

**Preformed Silicone Seal Profile:**

Wabo®SPS silicone seal is manufactured of an extrudable custom 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	REQUIREMENTS
Color	Visual	Gray
Durometer (Shore A)	ASTM D2240	55 +/- 5
Tensile Strength	ASTM D412	1000% min
Elongation	ASTM D412	400% min
Tear Resistance (die B)	ASTM D624	100 lbs/in min
Compression Set @ 350 F, 70 hrs	ASTM D395	30% max

**PHYSICAL PROPERTIES (Wabo®SiliconeSeal):**

PHYSICAL PROPERTY	ASTM TEST METHOD	PART A	PART B
Color		White	Gray
Viscosity		88,000 cps	34,000 cps
Leveling	C 639	Self levels	Self levels
Extrusion rate ml/min	C 1183	200- 600	200- 600

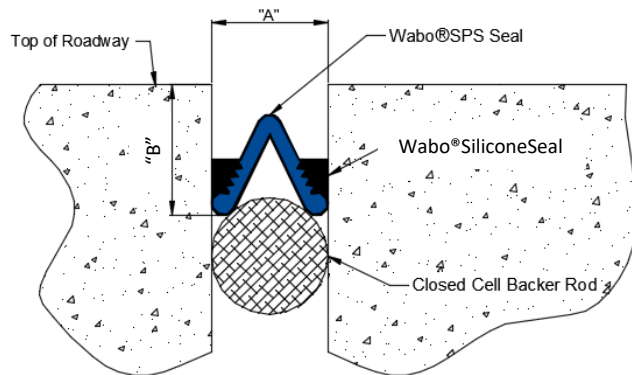
PHYSICAL PROPERTY	ASTM TEST METHOD	REQUIREMENTS
Leveling	C 639	Self levels
Tack free time	C 679	60 minute max.
Joint elongation	D 5329 (1)(2)	600% min.
Joint Modulus, 100%	D 5329 (1)(2)	15 psi (.10MPa) max
Cure evaluation	D 5893	Pass @ 4 hrs, max
Ultimate elongation	D 412 Die C (1)	1000% min.
Stress @ 150%	D 412 Die C (1)	25 psi max. (.17 Mpa)
Shore Hardness, 00	C 661 (1)	40- 80
Specific Gravity	D 792 (1)	1.20- 1.40

(1) Specimens cured at 77 +/- 3 F and 50 +/- 5% R.H. for 7 days

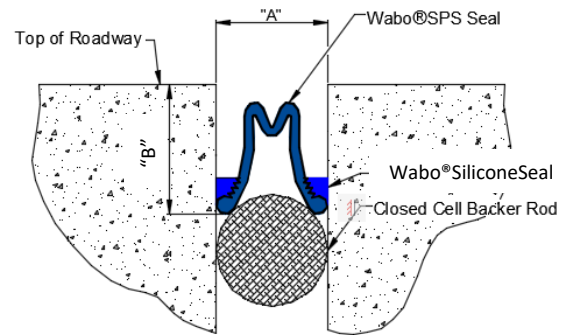
(2) Specimens size is ½” wide x ½” deep x 2” long

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**DESIGN DATA:**



**Wabo@SPS-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-225	1.25"	.75"	3.00"	2.625"	2.25"
Wabo@SPS-400	2.0"	1.0"	5.00"	3.75"	4.0"
Wabo@SPS-500	2.0"	1.5"	6.5"	4.75"	5.0"

**APPLICATION:**

**INSTALLATION SUMMARY:**

- Newly placed concrete:** 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 (14 day minimum).
- Aged concrete:** loose, contaminated, weak, spalled, deteriorated and/or delaminated concrete must be removed to sound concrete and repaired prior to placement.
- Steel:** steel substrates should be sound, steel surfaces must be abrasive blasted SP-10 near white metal, immediately prior to installation.
- The joint opening must be abrasive blasted to remove all latencies and contaminants which may cause bonding problems. The joint opening should be blown clean using compressed air (>90psi).
- A non-gassing closed-cell expanded polyethylene foam rod, approximately 25% larger in diameter than the joint gap is positioned in the joint opening on the larger seal so not to allow the seal to potentially fall thru the opening during installation.
- Clean all excess material from the edges of the joint opening as soon as possible. DO NOT allow the silicone to cure before removing it.
- Wabo@SiliconeSeal will be ready to accept traffic generally within 30 minutes after installation.

**APPLICATION:**

- **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®SiliconeSeal 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
- If using Wabo®SiliconeSeal, tool adhesive on both sides to ensure the adhesive makes full contact with the seal and substrate.
- Wabo® SPS system will be ready to accept traffic within one hour after installation

**OPTIONS/EQUIPMENT:**

- **Pneumatic Air Gun** (for 29 oz or 50.72oz cartridges) can be purchased from WBA.
- Closed cell polyethylene backer rod for larger openings to hold the seal in position

**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.*

**FOR BEST RESULTS:**

- Repair any spalls, voids, or structural cracking at the joint interface.
- Do NOT allow any of the 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
- 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](http://www.watsonbowmanacme.com)) or contact a customer service representative.

**RELATED DOCUMENTS:**

- Material Safety Data Sheets
- Wabo®SiliconeSeal Data Sheet
- Wabo®SPS Specification
- Wabo®SPS Sales Drawings
- Wabo®SPS Installation Procedure
- Wabo®Crete SPS Joint System Datasheet