

## SILICOFLEX BRIDGE DECK JOINT SEALING SYSTEM

The work shall consist of furnishing and placing the Silicoflex Preformed Silicone Joint Sealing System as detailed and as shown on the plans.

All necessary components, materials and equipment required for the installation shall be obtained through an approved supplier. Components of the joint system shall come from the same manufacturer and may not be substituted for others.

The approved supplier shall furnish a qualified, experienced technical representative to advise the engineer and contractor concerning proper installation procedures.

### MATERIALS

Silicoflex Joint Seal – The material shall be made of silicone, preformed by extrusion, and shall meet or exceed the following physical requirements.

Property	Test Method	Typical Value
Durometer (Shore A)	ASTM D 2240	55±5
Tensile (psi)	ASTM D 412	1,000 psi min.
Elongation (%)	ASTM D 412	400% min.
Tear (die B ppi)	ASTM D 624	100 ppi min.
Compression Set	ASTM D 395	30%
At 212°F 70 hrs.		
Heat Aged Properties	ASTM D573	
70 hrs @ 212°F		
Durometer		5 max. points loss
Tensile Strength, max, % loss		10 max. % loss
Elongation, max, % loss		10 max. % loss

Locking Adhesive – The material shall consist of a non-sag, one-part, medium-modulus, moisture curing silicone adhesive that cures quickly. It shall adhere to concrete, elastomeric concrete, polymer concrete, steel and Joint Seal and shall meet the following physical requirements.

Property	Test Method	Typical Value
Tensile Strength	ASTM D412	200 psi min.
Elongation	ASTM D412	450% min.
Tack Free Time	ASTM C 679	20 min. max.
Cure Time ¼" bead	ASTM C 679	24 hrs. max.
Resistance to U.V.	ASTM C 793	No cracking, & Ozone chalking or Degradation

### INSTALLATION CONDITIONS FOR SILICOFLEX

Do not start installing the Joint Seal on the project until a trained factory representative is on the job site to provide direction and assistance throughout the installation work. Notify the Joint Seal manufacturer of the scheduled installation a minimum of 2 weeks in advance. The factory representative must be present for the installation of the first Joint Seal and succeeding Joint Seals until the Contractor becomes proficient in the work.

The minimum temperature in which you can install the Joint Seal is 40°F and rising ambient air temperature. The joint surface must be completely dry before installing the Joint Seal. The Joint Seal cannot be installed immediately after precipitation or if precipitation is forecasted for the day. Joint preparation and installation of Joint Seal must be done during the same day. Traffic must not be allowed to pass over a joint after sandblasting has occurred.

## INSTALLATION INSTRUCTIONS FOR SILICOFLEX

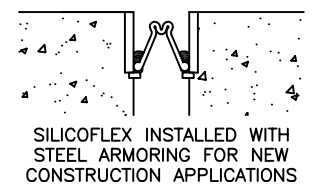
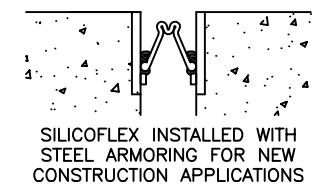
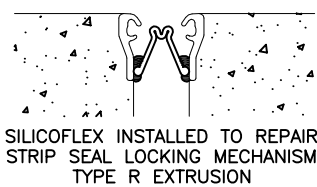
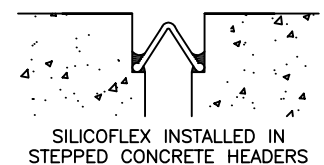
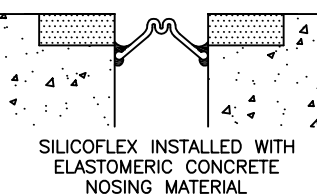
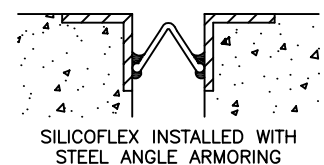
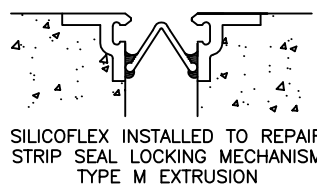
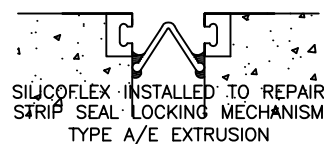
For new primed steel joint installations, wipe vertical faces of joint clean with a rag saturated in denatured alcohol – no sandblasting is necessary. For new concrete joint installations, roughen concrete surface and wipe vertical faces of joint clean with a rag saturated in denatured alcohol. Roughening can be done by sandblasting, wire brushing or other mechanical methods approved by R.J. Watson. For joint seal replacements to existing joints, sandblast the vertical faces of the joint and wipe clean with a rag saturated in denatured alcohol. Using oil and water-free compressed air, blow joint area clean to remove all debris. Wipe clean armor plate with a cloth saturated in De-Natured Alcohol. Mix together A and B components of Primer and then apply to the vertical joint interfaces. Allow primer 30 minutes to dry. Unroll joint seal and place adjacent to joint opening. Clean the seal with a cloth saturated with De-Natured Alcohol, focusing on each side of the seal (top and bottom) where the adhesive will be bonded. Joint preparation, priming and installation of Joint Seal must all be done the same day. Traffic shall not be allowed to pass over primed joint surface.

Using a standard caulking gun, a 3/8" diameter bead of Locking Adhesive shall be applied to both sides of the vertical face of the joint. This bead of adhesive shall be placed approximately 1" below the top of the joint elevation.

Insert the Joint Seal into the joint opening in an inverted 'V' shape by folding it by hand. The Joint Seal shall be inserted above the 3#8 in. bead of locking adhesive. Gently push the Joint Seal downward while maintaining contact of the sides of the joint seal to the joint header. Position the Joint Seal to the proper depth which is when the top of the Joint Seal is ½ in. below top of the road surface. Apply a second bead of locking adhesive along each side of the Joint Seal to the top of the serrations, and no higher. This second bead of adhesive should be in contact with the seal and the armor plate. The Locking Adhesive must be tooled at least twice with a tongue depressor to ensure complete contact with the vertical edge. The second bead of adhesive should look smooth with no air voids or bubbles. In the event of a visible air void, more adhesive must be applied. Allow 60 minutes before allowing traffic over a newly installed Joint Seal, unless directed otherwise by an approved representative.

Vertical curbs, directional changes and field splices require the Locking Adhesive as a bonding agent.

### OTHER TYPICAL SILICOFLEX APPLICATIONS



## EQUIPMENT REQUIRED TO INSTALL SILICOFLEX

Air Compressor  
 Sandblaster and Sand  
 Rags  
 Denatured Alcohol  
 Clean Empty Can  
 Small Paint Brushes (To apply primer)  
 Caulking Gun (30 oz size)  
 Compatible Fitting for Pneumatic Caulk Gun  
 Box Cutter or Knife  
 Locking Adhesive Seal Breaker (screwdriver)  
 Tongue Depressors  
 Foam Backer Rod (To support seal while curing, if necessary)  
 Splicing Kit (Miter box and sharp knife)  
 Gloves  
 Disc Grinder (if sandblasting is not permitted)

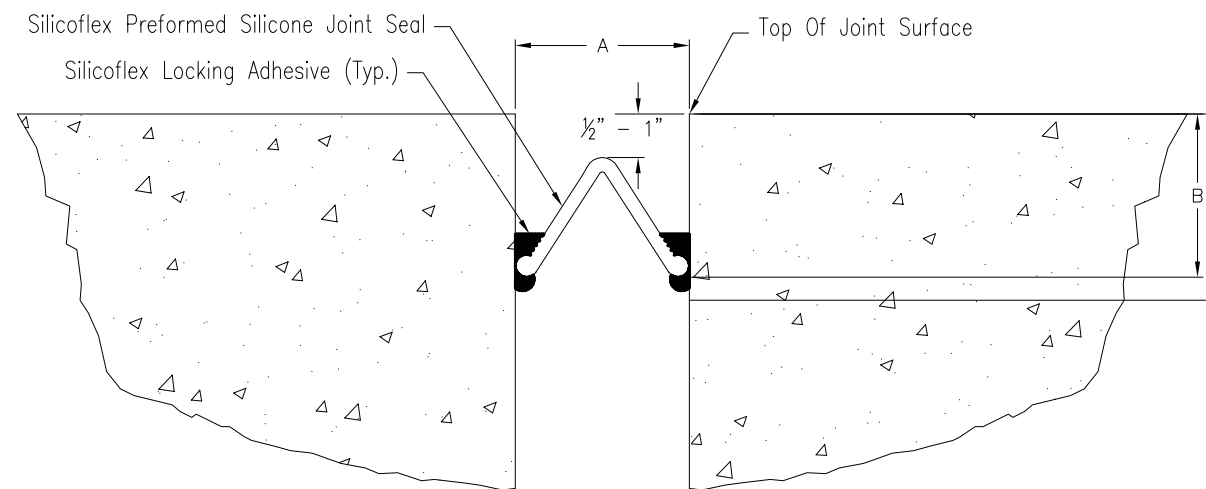
### STORAGE REQUIREMENTS

Keep Silicoflex Locking Adhesive and Primer stored indoors in a well ventilated area at 60°–100°F. Must be kept out of direct sunlight and kept away from moisture

Silicoflex Locking Adhesive and Primer have a one year shelf life from date of manufacture.

### SILICOFLEX SIZING CHART

MODEL	PROFILE	A			B	C
		INSTALLATION WIDTH	MAX CLOSURE	MAX OPENING	INSTALLATION DEPTH	LIMITS OF SANDBLASTING AND JOINT PREPARATION
SF 150		1" – 2" (25mm–51mm)	1/2" (13mm)	2" (51mm)	2"–2 ½" (51–64mm)	3" (76mm)
SF 225		1 ¼" – 3" (32mm–76mm)	¾" (19mm)	3" (76mm)	3"–3 ½" (76–89mm)	4" (102mm)
SF 400		2 ½" – 4 ½" (64mm–114mm)	1" (25mm)	5" (127mm)	3 ½"–4" (89–102mm)	4 ½" (114mm)



MANUFACTURER'S NAME: R.J. WATSON INC.  
 ADDRESS: 78 JOHN GLENN DRIVE  
 AMHERST, NEW YORK 14228  
 TELEPHONE NO. (716) 691-3301  
 FAX NO. (716) 691-3305

### MATERIALS DETAIL SHEET

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWING NUMBER: \_\_\_\_\_