

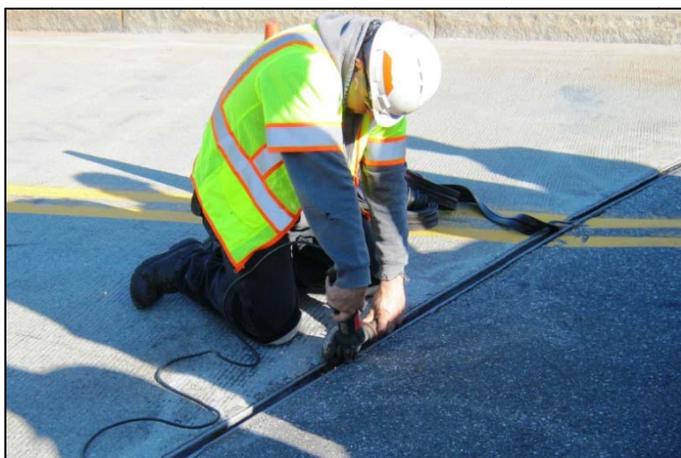
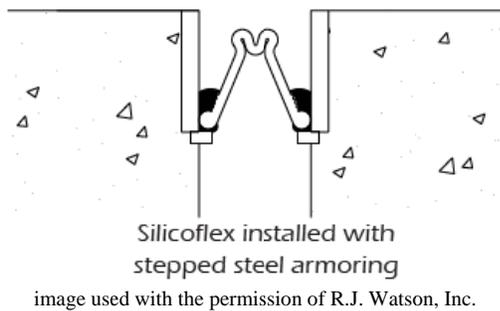


Joseph R. Becker, Sales Engineer with R.J. Watson, Inc. was on site to lead the installation of six Silicoflex joint seals on the Pond Rd. Bridge over I-95 in Hermon, ME.

The temperature on the deck was in the low 40s at the start of the installations, overcast and windy at 9:30 am. Several MaineDOT Bridge Maintenance crewmembers assisted with the joint seal installations.

The seal chosen for this application was the SF150, which is sized for a maximum closure of 0.5" and a max opening width of 2.0".

Silicoflex was developed by R.J. Watson (RJW) in the 1990s. It was designed to be easy to install and provide a durable seal. The Silicoflex seal is an inverted "V" as shown below:



All loose material was removed from the joints the previous day by Bridge Maintenance forces. The steel joint armoring was then sandblasted.

As a precaution, the steel was brightened up with a grinder to ensure that no light scale had formed overnight that might interfere with the bond of the primer today.

Conditions during installation were on the cool side, but according to RJW, acceptable as the recommended minimum temperature for installation is 40°F.

After the grinding procedure, the steel armor was wiped clean with denatured alcohol soaked rags and allowed to dry.



This step ensures that no oils are left behind that may have been introduced during the blasting process.

The seal itself also needs to be wiped clean with denatured alcohol before insertion.



The primer is a two-part epoxy-based primer, trade name: P-200 Epoxy Primer.

Equal parts of A & B are mixed together and brushed on the steel surfaces. This primer may also be used directly on PCC concrete & elastomeric concrete when steel armoring has not been used.

Under the present cool temperature conditions, the primer stayed liquid for enough time to do two joints. Under warmer conditions, the epoxy would likely have a much shorter "pot" time.

A half-inch bead of Silicoflex Locking Adhesive is applied to both sides of the vertical faces of the joint.

This bead of adhesive should be placed approximately 1" below the top of the joint elevation.

Silicoflex Locking Adhesive is available in 29 oz. tubes, which makes for quick work when used with an air-powered caulking gun and ensures an evenly distributed bead.





The seal is inserted by first laying it across the opening and then gently easing it downward while maintain contact with the sides of the joint header.

Position the seal to the proper depth, which is when the top of the seal is between 0.5" and 1.0" below the top of the road surface.

This step is critical to ensure that the seal is not caught by snow plowing operations.

A second bead of Silcoflex Locking Adhesive is then applied along each side of the seal. Care must be taken that the seal is applied to the top of the serrations and no higher. The adhesive must be "tooled" with a tongue depressor to ensure complete contact with the joint face.

Vertical joints and transitions (curbs) can be ordered through RJW ready to install.

For this application, all such transitions were field cut.



At least 60 minutes must be allowed before allowing traffic over a newly installed Silicoflex seal.

Performance of this joint system will be evaluated over a two year period.

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