

## **Iso-Flex VS Series Expansion Joint Installation Procedures**

### **1. Preparatory Work**

The expansion joint opening shall be a consistent width along its entire length, or be within the established width dimensions for the specified seal for the particular project.

Edge spalling, sharp projections and concrete voids shall be repaired prior to proceeding with the installation of the Iso-Flex VS Series Expansion Joint System. Any repair materials used should be allowed to fully cure per manufacturer's recommendations before the installation is begun.

The Iso-Flex VS Series "visual" and "secondary" seals shall be unrolled and allowed to lie in a relaxed position. Once relaxed, the seal should be measured and cut to the desired length. When measuring the seal, be careful not to pull or stretch the seal.

If necessary, butt splices and directional changes to the "visual" seal can be completed in the field by heat splicing. Utilize a 400 degree F. heat plate and follow typical thermoplastic heat splicing procedures. It is highly recommended to allow spliced pieces to remain undisturbed for 1/2 hour before installing.

Tools Required:

- Electric Drill
- Bits for base member anchors
- Phillips head drill bit
- Caulking gun
- Silicone sealant
- Miter box
- Saw (knife) for cutting Visual Seal

### **2. Installation**

Utilizing either a section of the aluminum edge extrusion, or a fixture, pre-drill anchor locations into the associated substrate. 20 inch maximum spacing of anchors is recommended with 3" maximum from each end.

With the holes drilled begin attachment of the aluminum edge extrusions. Prior to setting the edge extrusion into place (exterior applications) it is recommended that a bead of 1-part urethane sealant, such as Iso-Flex 830, be applied on the back side to create a sealing effect to the substrate. Holding the edge extrusion in place, install the provided anchor screws. Ensure that the front of the aluminum base extrusion is recessed by 1/8" to allow for the seal to be flush with the wall. Repeat this procedure until both side edge rails are in place for the complete joint location.

#### **Optional Installation Method:**

Base extrusions for systems using up to 5" seals may be bonded in place using 1-part urethane sealants. This is for situations with uneven substrates where standard anchoring is not possible. To use this method apply a heavy coating of 1-part urethane sealant continuously along the back face of the aluminum base extrusion. Place and properly align the base extrusion to the wall and utilize blocking to hold the extrusion in place for 24 hours to allow the sealant to cure. Blocking should be at 36 inch spacing and

Styrofoam material works well for this purpose. Ensure that the base extrusion is recessed by 1/8" to allow for installation of the visual seal. It remains the manufacturer's recommendation that anchors be installed at each end of each 10 foot section as well as one anchor at the mid point of each length. Once the one side is in-place and cured, the opposing side can then be installed the following day.

With all of the edge rails in place the optional secondary seal can be installed. Before the secondary seal is installed it is recommended that a bead of silicone be placed into the locking area for the secondary seal. The secondary seal should then be press fit into the edge extrusion receiver beginning at the bottom. This process can be made easier with the use of a window screen installing wheel. If splicing of lengths of the secondary seal is required it should be done in such a way to have a positive counter-flash to shed any moisture.

The visual seal should now be installed beginning at the bottom of the joint location. Align the arrowhead anchor tabs and again using the window screen installing wheel press the tab into the aluminum base extrusion. The installation process can be eased by making a dish detergent/water mix that can be spray applied in a mister bottle. Do not use oils or solvents for this purpose.

Cutting of the visual seal should be done in a miter box to allow for straight cuts. The visual seal can be spliced/mitered using a 400° heat plate. This is accomplished by preheating of the heat plate. Once up to temperature, the opposing ends of the visual seal to be spliced should be placed against each side of the heat plate. In approximately 30-60 seconds a melted bead of the seal will become visible. Once this occurs remove the heat plate and align the seal ends and gently press together. The splice must be left without movement while allowing to cool for 20 minutes. Once the splice has cooled the seal can then be installed.

### **3. Clean Up**

Using a clean rag soaked with denatured alcohol, wipe the exposed surfaces of the seal until clean. Properly dispose of all waste materials.

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