

Iso-Flex Pressure Lok Seal 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. Refer to LymTal International's Drawing No. 1024 for specific sizing information. Edge spalling, sharp projections and concrete voids shall be repaired prior to proceeding with the installation of the Iso-Flex Pressure Lok Expansion Joint Sealing System. Any repair materials used should be allowed to fully cure per manufacturer's recommendations before the installation is begun.

Slightly chamfered or rounded top corners of the concrete at the expansion joint is recommended to help prevent spalling and damage to the concrete edges during subsequent use.

The Iso-Flex Pressure Lok seal 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.

When required, butt splices and directional changes can be easily completed in the field. Splice one end of the Iso-Flex Pressure Lok to another by making fresh cuts on both ends, with either square or 45° angles. Both ends of the seal, which are to be bonded together, must be ground with a hand grinder to ensure adequate adhesion. At the same time it is important to lightly abrade the top surface of the seal back 3" from the splice location. Apply a thin layer of Cyanoacrylate Glue to both mitered ends of the seal, and then hold the two faces firmly together for about one minute. It is recommended that all terminations shall have a 6" upturn if possible.

Only for installations having a tight fit requiring a high degree of compression, it may be necessary to vacuum air out of the seal. To accomplish this, each end of the seal shall be capped off, making the seal airtight. Cut each end of the seal producing a straight edge and cut holes in all the inner membranes of the seal body to allow the air to flow between the chambers. Next, lightly grind each end of the seal and each end cap. Cut the end cap to the appropriate size, apply a thin layer of Cyanoacrylate Glue to the end of the seal, and hold the end cap firmly to it for about sixty seconds. On one end of the seal make an air valve hole, apply a thin layer of Cyanoacrylate Glue, insert and glue the air valve into place.

The expansion joint opening must be thoroughly sandblasted to remove any laitance or material that would inhibit the bond of the adhesive. Additionally, this procedure will provide an adequate surface profile to which the adhesive will bond.

The side walls of the seal must also be cleaned and abraded. The most efficient and thorough means of accomplishing this process is to utilize the sandblasting equipment already being used to prepare the concrete. Simply sandblast the ribbed sidewall areas of the seal. Once sandblasted, wipe the sidewalls with

white cotton rags that are soaked with Iso-Flex Profile Conditioner. Once prepared and cleaned be sure to keep the rubber seal clean while allowing the Profile conditioner to dry for 30 minutes. An alternate method of preparing the seal is to brush the ribbed sidewalls of the seal with a wire brush while soaking the sidewall with the Iso-Flex Profile Conditioner. Once abraded, the sidewalls should be wiped with white cotton rags that are soaked with clean Iso-Flex Profile Conditioner.

2. Installation

Following the surface preparation, blow out the joint gap with clean, dry, compressed air. Using a cotton rag, wipe the concrete bond interfaces with denatured alcohol. In an effort to keep a neat installation tape the adjacent traffic surfaces on both sides of the gap.

Next, mix the two-component Iso-Flex Epoxy Bonding Adhesive. This is easily accomplished by using a margin trowel or putty knife. Begin by pulling equal amounts of the part "A" and part "B" components from their containers and place them on a clean piece of 18-inch square cardboard or wood. With both components now on the cardboard or wood surface use the trowel to fold the materials together until fully mixed. Approximately two minutes should allow for full blending.

Using the Iso-Flex Epoxy Adhesive and the margin trowel, coat the sidewalls of the expansion joint gap, starting at the top of the gap going down to a depth equal to the lowest rib on the side of the seal. Additionally, apply enough adhesive to cover the ribbed surfaces on both sides of the seal.

Once again, if the joint gap dimension is such that the epoxy will be squeegeed off of each side of the joint seal or gap during installation, the air inside the seal shall be vacuumed out. This will reduce the width of the seal just enough so that there is adequate friction to hold the seal in place but not remove the epoxy during installation.

The seal should now be placed in the joint gap. Using a blunt tool, position the seal so that the top will be just below the adjoining concrete surfaces at full compression.

3. Clean Up and Final Splice Sealant Application

Using a clean rag soaked with denatured alcohol, wipe the exposed surfaces of the seal until clean. Allow the alcohol to fully dry then at each splice use the Iso-Flex Profile Conditioning Agent and wipe the top surfaces that have been previously abraded. Allow the Conditioning Agent to fully dry, then apply tape at the outer edges of the roughed up surface then place a bead of Iso-Flex 825 Sealant over the splice and trowel out on the top of the seal. Ensure the sealant is tooled to mimic the shape of the top of the seal. Remove the tape and allow the sealant to cure for 24 hours.

Remove and collect the joint edge tape along with the used containers and rags. Properly dispose of all waste materials.

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