

## ISO-FLEX WINGED CAP SEAL EXPANSION JOINT INSTALLATION PROCEDURES

### 1. Preparatory Work

The expansion joint blockout and stem openings shall be a consistent width and depth along the entire length. They shall be the required widths and depths for the specified seal on this project. Refer to LymTal International Drawing No. 3042 for specific sizing information.

Edge spalling, sharp projections and concrete voids shall be repaired prior to proceeding with the joint installation. All repair materials used should have reached full cure conditions as specified by the manufacturer.

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

The Winged Cap Seal Expansion Joint Seal shall be unrolled and allowed to lie in a relaxed position. Once relaxed the seal can be cut to length and any splicing can be made (See section "Splicing").

The expansion joint blockout and opening should be sandblasted to remove laitance, loosely bonded material and any other contaminant, which may inhibit bonding of the system to the concrete. Should sandblasting not be feasible the surfaces must be ground with a coarse wheel disc grinder to produce an abraded surface. Care must be taken not to polish the concrete surface, as this can lessen the adhesion.

### 2. Installation

Tape both sides of the top edges of the concrete at the blockout in order to protect the surrounding area.

Wipe the ribbed sides and wings of the seal with a clean cotton rag.

Insert the Winged Cap Seal into the stem opening ensuring that the wings fit tightly against the base of the blockout.

Thoroughly mix one unit of Iso-Flex Primer #10 and with a disposable brush apply to the horizontal and vertical surfaces of the blockout. Ensure that the Primer #10 does not puddle. Allow the Primer #10 to cure to a point where it is dry to touch. Typical coverage rate is 60 ft./unit.

**Note:** If the primer dries for longer than 4 hours prior to the application of the Iso-Flex 900 installation the area must be re-primed with a mixture of Primer #10/MEK 1:1 by volume.

Tape the top surface of the Winged Cap Seal in order to protect it from Tack Coat and Elastomeric Concrete.

Combine one liquid unit of Iso-Flex 910 Tack Coat part A and B and briefly mix (approximately one minute) until they are fully blended. Typical coverage rate is 60 ft./unit.

**Note:** 15 minute work life, move quickly.

Using a bulk-caulking gun, immediately shoot the Iso-Flex 910 Tack Coat under the seal wings. Place enough liquid so that it rises through the perforations in the wings. Push the wings down, if necessary, into the bonding liquid, then strike off excess material that has risen through the holes. It is important that the wings lie flat in the blockout.

When the Iso-Flex 910 Tack Coat takes an initial set (becomes firm) the Iso-Flex 900 elastomeric concrete can be applied. You will need to start with a clean 6-gallon pail. Pour one unit of Iso-Flex 900 liquid parts A and B into the clean pail and briefly mix (5-10 seconds) with a heavy-duty drill and paddle. Immediately and progressively add the pre-measured graded aggregate (Iso-Flex 900 Sand) and blend into the liquid until all components are fully mixed.

Pour the Iso-Flex 900 Elastomeric Concrete into the blockout, pack the elastomeric concrete to eliminate any voids, and trowel smooth from the top outer ridge of the seal across to the corner of the concrete blockout.

**Note:** The Iso-Flex 900 Elastomeric Concrete has a short pot life; it must be mixed quickly and immediately applied. Typical coverage rate is 18 ft./unit in a standard blockout.

### **3. Clean Up**

Immediately after placement of the Iso-Flex 900 Elastomeric Concrete remove the tape from the seal and concrete and dispose of properly.

Wipe the seal with an organic solvent to remove any remaining nosing or tape residue.

**For Inclined Ramps:** Use all the procedures outlined above but add one unit of Iso-Flex Fibers into the mixed Iso-Flex 900 parts A & B prior to adding the Iso-Flex 900 Sand. This mixture will be slightly more difficult to apply and trowel, but once finished it will not slump on the inclined ramp.

### **4. Splicing**

Butt splices of the Iso-Flex Winged Seal can be easily completed in the field by using a heat fusing process. First, make sure the ends of the seal to be spliced have fresh, straight cuts. After the Iso-Flex Splicing Iron is preheated, hold it between each end of the joint. When each surface shows about a 3/16" bead of melted material quickly remove the splicing iron and hold the joint ends together until they bond (about 3-5 minutes). Do not move, bend, stretch or stress the splice before the recommended bond time.

Directional changes can be pre-manufactured by LymTal. This allows that only simple butt splicing is required on site.

### **5. Cure Time**

The installation can be opened to traffic once the Iso-Flex 900 has fully cured, approximately 4-6 hours.

Rev 01/17