

PURPOSE

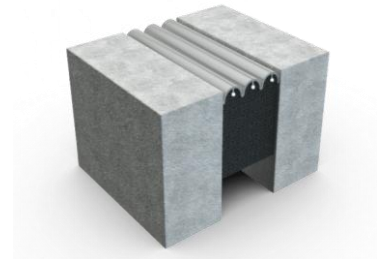
- 1.1 The purpose of this document is to establish typical guidelines for installation of Willseal® 250-R. The techniques involved may require modifications to adjust to jobsite conditions. Consult your local Willseal or Tremco Sales Representative or Tremco Technical Services for specific design requirements.

SCOPE

- 2.1 This document will provide the necessary instructions for installation of Willseal 250-R to qualify for a manufacturer's warranty.

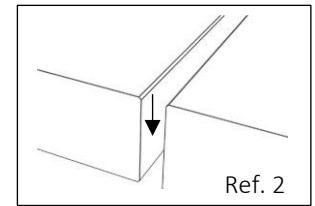
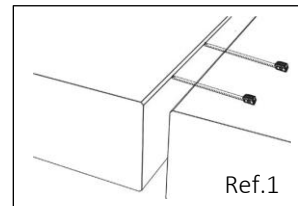
STORAGE

- 3.1 Store materials in a dry, enclosed area, making sure materials are off the ground and out of direct sunlight.
- 3.2 Material will expand faster when hot and slower when cold. In cold temperatures, store material in a heated area 24 hours prior to installation. In hot temperatures, store material out of direct sunlight and not in an enclosed storage container where temperatures may exceed 100°F (37.8°C).



MATERIAL SIZING

- 4.1 Joints must be sized every 5-7 feet (1.5-2.1 m) to ensure gap opening is uniform. **Ref 1.**
- 4.2 Allow sufficient depth to recess the foam material 1/4" (3-6 mm) into the joint. **Ref 2.**

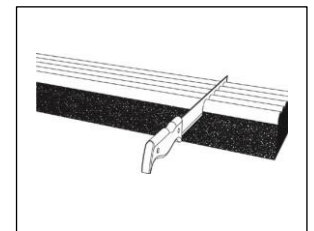
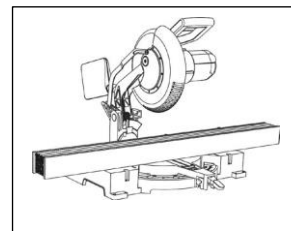


MATERIAL PREPARATION

- 5.1 Store material at a minimum of 68°F (20°C) for a minimum of 24 hours prior to installation, regardless of temperature at location of installation.
- 5.2 Material will expand faster when hot and slower when cold. In cold temperatures, store material in a heated area 24 hours prior to installation. In hot temperatures, store material out of direct sunlight and not in an enclosed storage container where temperatures may exceed 100°F(37.8°C).

5.3 Cutting Material – Stick Material

- Use a miter saw to make any cuts to the material before removing the clear shrink packaging. All starting and ending pieces must be square to the termination point. **Ref 1**
- For 250-R they will need to cut to length with a miter saw because of the reinforcing members
- In order to prevent expansion past the joint size, install immediately after removing shrink wrap and making final cuts.



SUBSTRATE PREPARATION

- 6.1 Verify that the joint is clean, sound, and will provide an appropriate surface for installation of the joint sealant.
 - Use compressed air to clean any loose debris from the joint.
 - Apply alcohol to a clean cloth and wipe the joint walls to the depth of the sealant material plus 1"
- 6.2 Verify that the joint is uniform and repair any spalls prior to installation
- 6.3 Check the material for appropriate length, width, and depth
- 6.4 Supplied material should be pre-compressed to a size smaller than the intended joint opening.
- 6.5 Joint depth must allow for the installed material to be recessed 1/4" (6.4 mm) from the substrate surface.
- 6.6 Apply duct tape to the concrete surface butting up to the joint opening. This will assist in keeping the substrate clean in case epoxy is inadvertently applied over the edge of the joint.

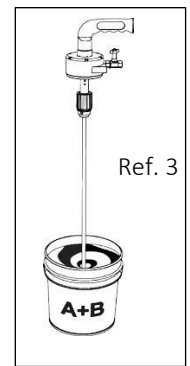
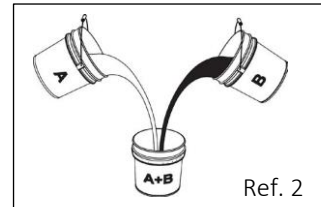
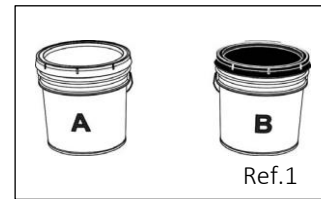
EPOXY PREPARATION

7.1 Mix Part A and Part B separately. **Ref 1.**

- Transfer the entire contents of Part A (resin) and then Part B (hardener) into a clean, empty container. Part B must ALWAYS be added to part A, and mixed in a 1:1 ratio. **Ref 2.**
- Mix the material thoroughly with a low speed (approximately 300 rpm) drill or jiffy mixer. **Ref 3.**
- Mix until the black and white is evenly blended leaving no streaks of either color .
- Transfer the mixture to another clean container to avoid any leftover residue from streaking the final mixture.

7.2 Epoxy Tips

- The epoxy will not cure when the temperature is below 40°F(4.4°C).
- For every +17°F (-8.3°C)., the epoxy cures twice as fast.
- For every -17°F (-27°C), the epoxy takes twice as long to cure.
- Greater volume = less time to cure, smaller volume = more time to cure
- A technique to increase the pot life of the epoxy is to split up the mixed material into smaller units.
- Mix only the required amount of epoxy that will be used within a 30 minute timeframe to prevent the epoxy from curing prematurely



APPLICATION PROCEDURES:

8.1 Begin installation at one end of the joint and work to the opposite end using butt seams. **Ref. 1**

8.2 When fully prepared to install, apply a 1/16" - 1/8" (1.6 – 3.2mm) coating of the epoxy mixture to both joint walls using a 1" margin trowel starting ¼" from the joint surface to a depth of the sealant material plus 1/2"(1.25 cm). **Ref. 2**

- The epoxy must still be wet upon installation of Willseal 250-R; The working time for epoxy is approximately 30 minutes depending on the temperature.
- If the epoxy hardens on the surface of the substrate before installation, another coat of epoxy can be applied within 2 hours. After 2 hours, the substrate surface must be abraded to eliminate the amine blush that occurs during the final cure.

8.3 When fully prepared to install, cut the shrink packaging along the edge of the masonite strapping". **Ref. 3**

- Be prepared to install material immediately once the packaging is removed to prevent the material from expanding past the joint width.

8.4 Verify that the material is cut square at both ends for proper seams; all pieces must be square to the termination point.

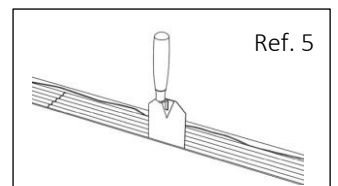
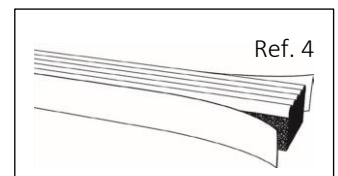
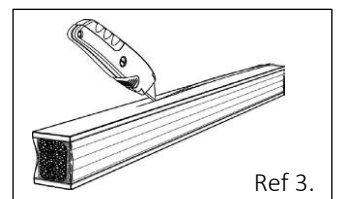
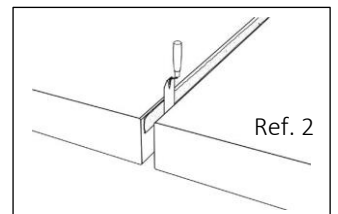
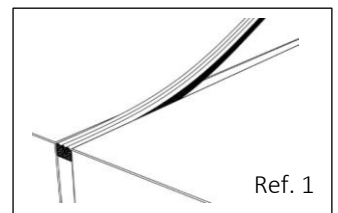
8.5 Pay attention to the direction of insertion marked on the packaging.

8.6 Be prepared to install the material immediately once the packaging is removed to prevent the material from expanding past the joint width

8.7 Remove the white release liner on both sides of the Willseal 250-R. **Ref. 4**

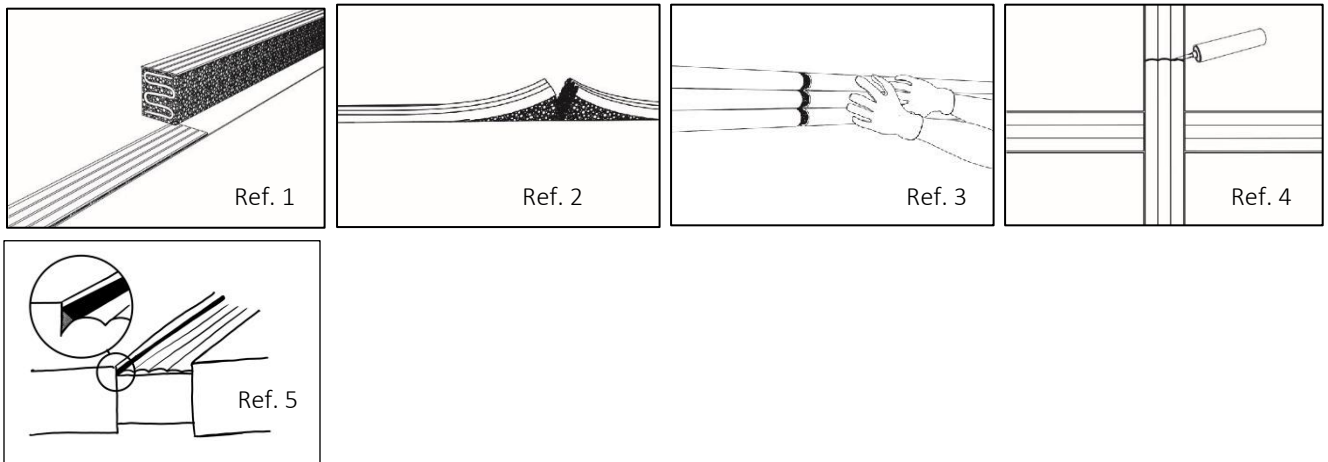
8.8 Make sure not to pull, twist or stretch the material in the process of installation to avoid tearing the white release liner Initially, position Willseal 250-R 1/8" (3.2 mm) above the deck surface. Once the material is partially expanded in the joint, it can then be installed to 1/4" (6.4 mm) below the surface of the joint using a putty knife or margin trowel. **Ref. 5**

- Wedges can be used to aid in installation
- Remove wedges once the material begins to expand and before the epoxy cures.



SEAMS

- 9.1 Verify that the new piece of material is cut square and not at an angle to the previous piece installed.
- 9.2 Apply supplied joint splice adhesive to the butt end of the new piece of material. **Ref. 1**
 - Do not apply joint splice adhesive to the faces of the product that are in contact with the sidewall adhesive.
- 9.3 Overlap extra material (approximately 1/2" - 1" (1.25 – 2.5 cm) at seams and splices to ensure that the seam is in compression after installation. **Ref. 2**
- 9.4 Make sure seams are flush against each other and then push the pieces together. **Ref. 3**
- 9.5 Butt seam all "T" and "+" intersections.
 - If there are any mitred joints with a hole or void, use the supplied flexible seal to fill and seal the joint.
- 9.6 Apply flexible seal over seams and intersections. **Ref. 4**
- 9.7 If crew size permits and two lengths of material can be prepared, the ends to be seamed can be held above the deck surface and the mitred pieces can be pushed down into the joint together.
- 9.8 Apply a 1/4" (6.4 mm) bead of the supplied traffic rated silicone along the seams where the foam meets the joint wall on both sides of the joint. **Ref. 5**



CONNECTIONS (OPTIONAL)

- 10.1 Connection options are available. Please contact your local Willseal or Tremco Technical Sales Representative to find out which connection option is best for your specific project.

FINISH

- 11.1 Remove duct tape.
- 11.2 Remove excess flexible seal or epoxy left on the surface of the material substrate. DO NOT allow the excess flexible seal adhesive or epoxy cure.
- 11.3 For more information on the following materials, please contact your local Willseal or Tremco Technical Sales Representative.

MAINTENANCE

- 12.1 Follow Recommended Maintenance Procedures document for horizontal applications on Willseal.com.