



APPLICATION INSTRUCTIONS

WILLSEAL BACKER ROLL®

Breathable Secondary Seal for
Vertical Expansion Joints

1. PURPOSE

1.1 The purpose of this document is to establish typical guidelines for installation of Willseal Backer Roll®. The techniques involved may require modification to adjust to jobsite conditions. Consult your local Willseal or Tremco Technical Sales Representative or Tremco Technical Services for specific design requirements and assistance.

1.2 Willseal Backer Roll is used as a secondary seal in vertical applications.

2. SCOPE

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

3. APPROVED SEALANTS

3.1 The following are recommended materials for use over Willseal Backer Roll, where the sealant becomes the Primary Seal. When using a sealant as the primary seal, the foam and sealant should be recessed 1/4". Follow the recommended sealant dimension guidelines for the chosen sealant.

- Dymonic® 100
- Spectrem® 1
- Spectrem® 2

3.2 For more information on the following materials, please contact your local Willseal or Tremco Technical Sales Representative.

4. AVAILABILITY

4.1 Willseal Backer Roll is available in both rolls and sticks (6.5 ft lengths) from your authorized Tremco Distributor, or at any Tremco or Willseal Sales Representative. For more information contact Customer Service by phone at 800-274-2813 or email custserv@willseal.com.

- Joint sizes from 1/8" to 2" in rolls
- Joint sizes from 2.25" to 8" in sticks (6.5 ft lengths)
- Custom sizes available upon request

5. STORAGE

5.1 Store materials in a dry, enclosed area, making sure materials are off the ground and out of direct sunlight.

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).

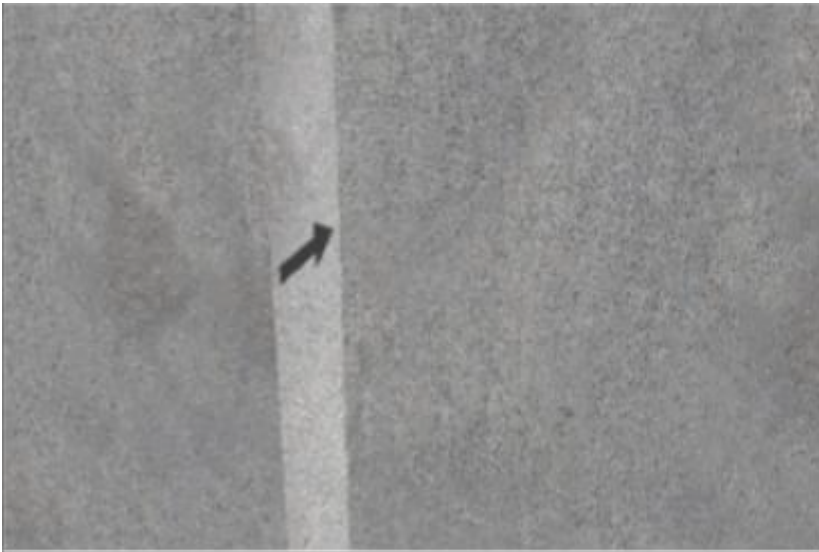
6. MATERIAL SIZING

6.1 Joints must be sized every 5-7 feet (1.5-2.1 M) to ensure gap opening is uniform. Ref 1.

6.2 Allow sufficient depth to recess the foam material 1/8" - 1/4" (3-6 mm) into the joint. Ref 2.



Ref 1 - Measure Gap opening every 5 to 7 feet (1.5 to 2.1 M).



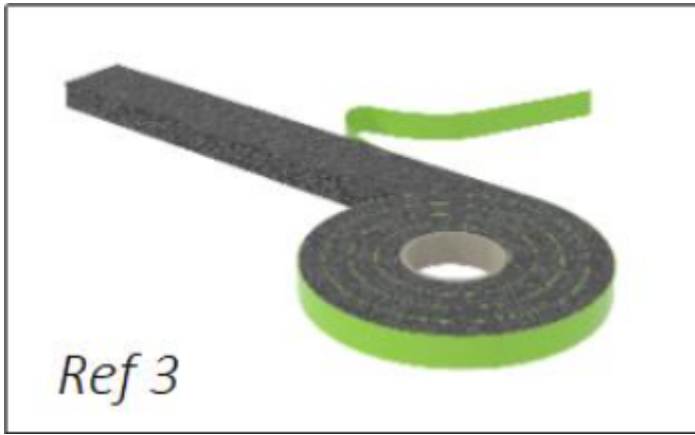
Ref 2 - Ensure depth for 1/8 to 1/4 inch foam recess minimum.

7. MATERIAL PREPARATION

7.1 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.

7.2 Cutting Details - Roll Material

- Do not make any cuts until ready to install the material. Be prepared to install the material immediately once the packaging is removed to prevent the material from expanding past the joint width.
- When fully prepared to install, remove the outer lining surrounding the joint material. See Ref 3.
- Cut off the first and last 1 to 2 inches of material using a sharp knife/utility knife. Tip: apply mineral spirits to the knife for a smooth, clean cut. See Ref 4.
- Be sure to cut all material so that it is square at both ends for proper seams. All pieces must be square to the termination point.



7.3 Cutting Material - Stick Material

- Use a miter saw to make any cuts into the material before removing the clear shrink packaging. All starting and ending pieces must be square to the termination point. See Ref 5
- Use a sharp knife to make any cuts after the clear shrink packaging has been removed. Apply mineral spirit to the knife for a smoother cut. See Ref 6.



Ref 5 - Measure & cut before removing shrink wrap.

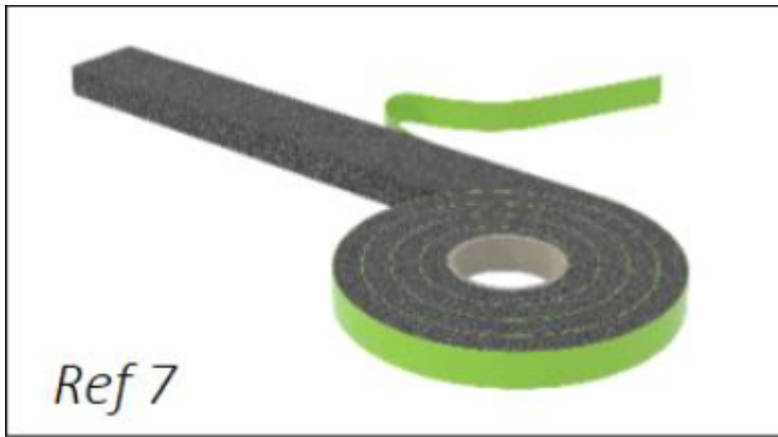
Ref 6 - Cut with foam knife after packaging is removed.

8. SUBSTRATE PREPARATION

- 8.1 Verify that the joint is clean, sound, and will provide an appropriate surface for installation of the joint sealant.
- 8.2 Use compressed air to clean any loose debris from the joint.
- 8.3 Apply alcohol to a clean cloth and wipe the joint walls to the depth of the sealant material plus 1"
- 8.4 Verify that the joint is uniform and repair any spalls prior to installation.
- 8.5 Check the material for appropriate length, width, and depth.
- 8.6 Supplied material should be pre-compressed to a size smaller than the intended joint opening.
- 8.7 Joint depth must allow for the installed material to be recessed 1/4 " from the substrate surface.

9. APPLICATION PROCEDURE - ROLLS

- 9.1 Be prepared to install material immediately once the packaging is removed to prevent the material from expanding past the joint width. When fully prepared to install, remove the outer lining surrounding the joint material, See Ref 7.



9.2 Cut off the first and last 1-2" of material using a sharp knife/utility knife. See Ref 8.

9.3 Verify that the material is cut square at both ends for proper seams; all pieces must be square to each other and to the termination points. Tip: apply mineral spirits to the knife for a smooth, clean cut. (refer to the Seams section for more details).

9.4 For horizontal joints, begin installing the material at one side of the joint (either side) and continue to install the material, working towards the opposite end. For vertical joints, begin installation of material at the bottom of the joint and work upward. See Ref 9.

- The installed rolls will assist in supporting the subsequent rolls until the material fully expands.



9.5 Place the material into the joint while gently pushing the pressure-sensitive adhesive (PSA) up against the side of the substrate. Once the material is in place, use a margin trowel to firmly press the adhesive to the substrate and allow the material to expand to fill the joint.

- If the PSA is not sticking to the substrate, use wooden wedges to hold the material in place while the material expands. Once the material has expanded, the wedges can be removed.

9.6 Allow 72 hours for full expansion and material equalization.

10. APPLICATION PROCEDURE - STICKS

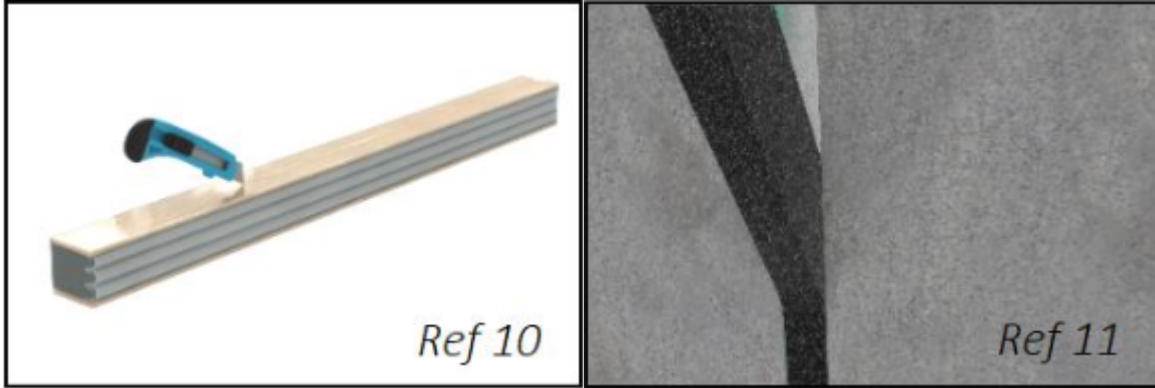
10.1 Be prepared to install material immediately once the packaging is removed to prevent the material from expanding past the joint width. When fully prepared to install, but the shrink packaging along the edge of the masonite strapping. See Ref 10.

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

10.3 Remove the release liner on both sides of the stick.

10.4 For horizontal joints, begin installing the material at one side of the joint (either side) and continue to install the material, working towards the opposite end. For vertical joints, begin installation of the material at the bottom of the joint and work upward. See Ref 11.

- The installed sticks will assist in supporting the subsequent sticks until the material fully expands.
- Pay close attention to the direction of insertion marked on the packaging.



FOR JOINTS UNDER 4" (10.1 CM)

10.5 Place the material into the joint while gently pushing the pressure-sensitive adhesive (PSA) up against the side of the substrate. Once the material is in place, use a margin trowel to firmly press the adhesive to the substrate and allow the material to expand to fill the joint.

- If the PSA is not sticking to the substrate, use wooden wedges to hold the material in place while the material expands. Once the material has expanded, the wedges can be removed.

10.6 Recess joint 1/4" from the substrate surface.

10.7 Allow 72 hours for full expansion and material equalization.

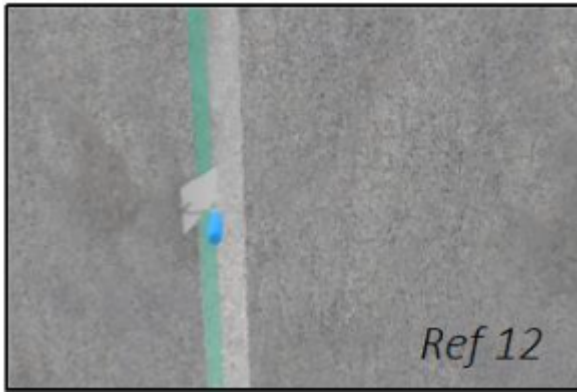
FOR JOINTS 4" (10.1 CM) AND OVER

10.8 Prepare epoxy by mixing Part A and Part B together in a separate container.

- 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.**
- Mix the material thoroughly with a low speed (approximately 300 rpm) drill or jiffy mixer.
- Mix parts A and B until a homogenized color is achieved, leaving no streaks of either color.
- Transfer the mixture to another clean container to avoid any leftover residue from streaking the final mixture.
- 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 time 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.

10.9 When fully prepared to install, apply a 1/16" to 1/8" coating of the supplied epoxy mixture to the joint that will not have the pressure sensitive adhesive up against it, using a 1" margin trowel. the epoxy mixture must be applied to a depth of the sealant material plus 1/2". See Ref 12.

- Do not apply the supplied adhesive accessory to the joint wall that will be adhered to the joint with the pressure sensitive adhesive as it will interrupt the bond.
- The epoxy must still be wet upon installation of Willseal Backer Roll. The working time for epoxy is approximately 20 to 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.



10.10 Recess the joint 1/4" from the substrate surface.

10.11 Allow 72 hours for full expansion and material equalization.

11. SEAMS AND FINISH

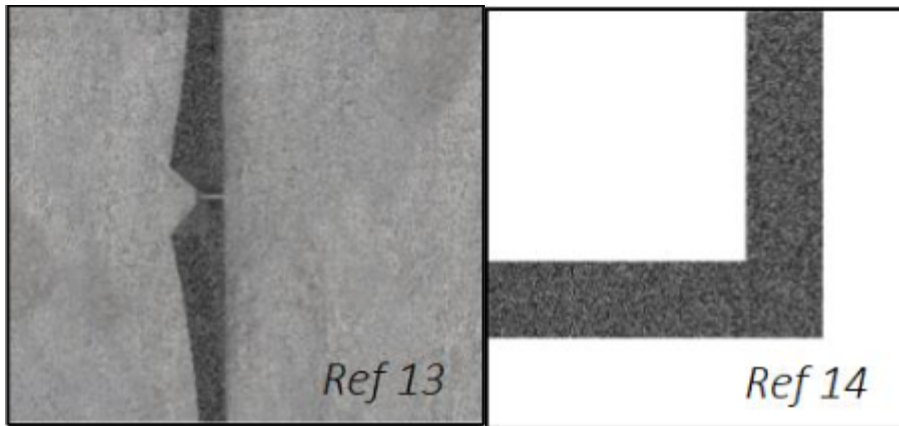
11.1 Verify that the end of the new piece of material is cut square and not at an angle to the previous piece installed.

11.2 Apply supplied joint splice adhesive to the butt end of the new piece of material. Do not apply joint splice adhesive to the faces of the product that are in contact with the sidewall adhesive.

11.3 Overlap the extra material (approximately 1/2 to 1 inch) at all seams and splices to ensure that all the seam is in compression after installation. See Ref 13.

11.4 Make sure all seams are flush against each other, then push the two pieces together.

11.5 For joint corners, seam the material together as shown in Ref 14.



11.6 Butt seam all "T" and "+" intersections. Install horizontal material first, then butt the vertical material to the horizontal material.

11.7 Remove any excess adhesive material left on the surface of the substrate. Do not allow the excess adhesive to cure.

12. LIMITATIONS

12.1 Avoid contact of Willseal Backer Roll with hydrocarbon solvents and corrosive chemicals.

12.2 Willseal Backer Roll cannot be used where standing or ponding water will occur.

12.3 Not for use in below-grade applications (contact your local Technical Sales Representative for product recommendations).

13. MAINTENANCE

11.1 Follow Recommended Maintenance Procedures document for vertical applications on Willseal.com.

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