

# WEHOLITE® LARGE DIAMETER PROFILE WALL HDPE PIPE THREADED JOINT

### **TECHNICAL BULLETIN**

## **Weholite Threading Guide:**

Threaded Weholite pipe is the preferred joining methods for culvert reline applications. The pipe thread is formed by factory removal of a portion of the profile wall of the pipe.



Step 1: Prior to threading pipe, grease the threads to reduce the threading force required.



Step 2: Place pipes in straight alignment



Step 3: Use nylon slings with lever or excavator arm to rotate the pipe.



Step 4: Visually inspect the joint to ensure that male and female threads are engaged.



## Methods to Prevent Possible Grout Migration through Weholite Threaded Joints:

There are two methods to prevent flowable cellular grout from potentially penetrating the threaded joint. One method is the use of closed cell polyurethane spray foam just prior to completing the threading process and the other by the use of Wehoseal as supplied by Infra Pipe around the completed threaded joint. Both options are outlined below.

**Option 1** – Closed cell spray polyurethane foam (commonly used for crack & gap filling installations such as: Great Stuff, Dap, Profoam):



Step 1: Thread pipe together until 1 complete turn is remaining to complete threading.



Step 2: Using closed cell polyurethane spray foam, spray foam in joint around entire circumference of the pipe.



Step 3: Finish spinning the threaded joint until thread will not spin anymore.



Step 4: Wipe off excess foam if necessary.



#### Option 2 - Wehoseal ( Heat shrinkable sleeve for protection of threaded pipe joints):

Wehoseal is a high performance, heat shrinkable product intended for sealing polyethylene pipe joints. Wehoseal provides superior barrier against grout ingress. Specifically designed for bonding to polyethylene pipes and casings, Wehoseal offers low substrate pre-heat temperature thus making the installation of this product simple, forgiving, and most importantly, reliable.

A combination of cross-linked polyethylene backing with a layer of unique hot melt adhesive, results in a long term barrier impermeable to moisture. Low installation pre-heat temperature ensures uniform and consistent bond to the substrate.

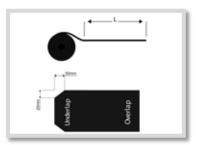
Wehoseal is available in two configurations: pre-cut to specific pipe size and bulk rolls.

#### **Product Description**



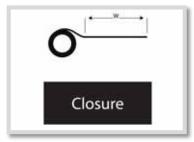
Step 1: Wehoseal sleeves are shipped in bulk rolls or pre-cut with a preattached closure. The adhesive is protected from contamination by an inner liner.

#### **Bulk Rolls**



Step 2: Cut the required length (L) of sleeve material from the bulk roll. To ensure that the sleeve is ready for installation, make sure that there is no dirt or moisture on the sleeve and that the sleeve is not damaged.

#### Cutting Closure



Step 3: Cut the required length (W) of sleeve material from the bulk roll. To ensure that the closure is ready for installation, make sure that there is no dirt or moisture on the closure and that the closure is not damaged.

## **Equipment List**



Step 4: Propane tank, hose, torch & regulator, knife, roller, digital thermometer with suitable probe and standard safety equipment; gloves, goggles, hard hat, etc.

#### Surface Preparation



Step 5: Dry the surface of the casing and jacket pipe (width of sleeve + 2" on each side) with moderate flame intensity. Clean the surface with a dry, grease and lint-free rag to remove any grease or dirt.

#### Pre-Heat



Step 6: Using medium to high intensity flame, pre- heat and activate the surface to be covered with heat shrink sleeve and min 2" on each side of the sleeve to a minimum temperature of 150°F. The flame shall be kept perpendicular to the surface of the pipe and casing during preheating. Check the temperature around entire circumference of the pipe with a touch probe.



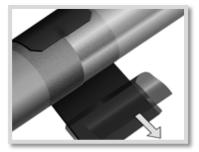
#### Sleeve Installation



Step 7: Partially remove the release liner from the sleeve ( $\sim$ 6" from the edge) and gently heat the adhesive along the underlap with a torch.



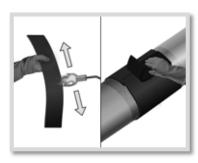
Step 8: Centre the sleeve over the area to be sealed, so that the sleeve overlaps between the 10 and 2 o'clock positions. Press the underlap firmly into place.



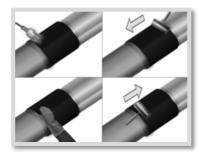
Step 9: Remove the remaining release liner.



Step 10: Wrap the sleeve loosely around the pipe, ensuring the appropriate overlap. Gently heat the backing of the underlap and then gently heat the adhesive side of the overlap.



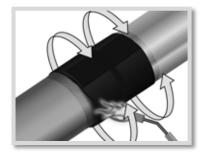
Step 11: Heat the adhesive side of the closure to activate the adhesive before centering the closure over the overlap and pressing it firmly down into place



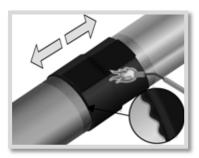
Step 12: Heat the closure with a moderate flame intensity and pat it down with a gloved hand or a roller across its entire length. Make sure that the closure is firmly attached to the underlying sleeve and it is not lifting anywhere. Smooth any wrinkles by gently working them outward from the center of the closure with a roller or by patting the closure down.



Step 13: Using the appropriate torch, begin at the centre of the sleeve and heat circumferentially around the pipe. Use broad strokes. If utilizing two torches, operators should work on opposite sides of pipe.



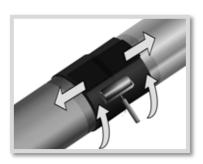
Step 14: Continue heating from the centre toward one end of the sleeve until recovery is complete. In a similar manner, heat and shrink the remaining side.



Step 15: Shrinking has been completed when the adhesive begins to ooze at the sleeve edges all around the circumference. Make sure the edges of the sleeve are not lifting anywhere around the circumference of the pipe. Finish shrinking the sleeve with long horizontal strokes over the entire surface to ensure a uniform bond.

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#### Quality Check



Step 16: While the sleeve is still hot and soft, use a hand roller to gently roll the sleeve surface and push any trapped air up and out of the sleeve, as shown above. If necessary, reheat to roll out air.



Step 17: After shrinking, press down on the sleeve to ensure adhesive flow over the entire surface. Special attention should be given along the circumference between 4 and 8 o'clock and along the overlap area. In order to avoid a channel formation at the step down, the sleeve should be pressed down. The shrinking has been completed when an adhesive ooze begins at the sleeve edges all around the circumference.



Step 18: As a final check, ensure that the sleeve follows the entire contour of the surface and that there are no cold spots or burning of the sleeve. Make sure the edges of the sleeve are not lifting anywhere around the circumference of the pipe. This can be checked by feeling the edges all around the circumference of the sleeve. If there is edge lifting, the edge should be reworked with additional heat.

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