

Polywater®

Solutions at work.

POLYWATER® BONDUIT® XL CONDUIT ADHESIVE (BTXL)



POLYWATER BONDUIT CONDUIT ADHESIVE

BonDuit® XL creates watertight, airtight conduit connections. Its strong bond withstands movement and vibration. BonDuit XL is used to transition polyethylene conduits to PVC, fiberglass, composite, and metals. No special equipment is necessary for installation.

INSTALLATION

Installation temperature:

35°F to 120°F (2°C to 50°C)

In-service temperature:

-60°F to 250°F (-50°C to 120°C)

- Good surface preparation is critical.
- Prime cartridge.
- BonDuit should be a uniform gray as dispensed from the static mixer.
- Keep cartridge warm above 60°F (15°C) for cool weather application.
- Leave static mixer on cartridge until next use.

SAFETY

- Wear eye protection
- Use protective gloves



Square Conduit End

1. Cut conduit to the desired length. If possible, use a pipe cutter or a miter saw to cut the conduit at a 90° angle. A good, straight cut will maximize adhesion area and improve the connection.

For conduit over 3 inches (75 mm) in diameter, taper the end at a 45° angle with a rasp or knife. This aids conduit insertion into the coupling.



Sand conduit and coupling

2. Use 80-grit abrasive cloth to sand the outside of conduit ½ inch (13 mm) beyond the depth of insertion into the coupling. Using same cloth, thoroughly sand inside of the coupling. All surface finish should be removed.



Clean Coupling and Conduit
with Cleaning Wipe

3. Clean the adhesion surfaces of both the conduit and coupling with cleaner wipe to remove any oils and displace water. Gloves are recommended.

Prepare as many conduits and coupling sets as possible and have them ready to assemble in advance. This will reduce BonDuit XL waste.



Close Tool

4. The tool need is a 10 oz very high ratio caulking gun (26: 1 or higher) or power operated caulking gun. On Polywater Tool-250HR the tool needs to be place on the "Drip Setting" (level up). When using a power gun, set it on half speed to start. At full speed it may be too hard to pump and the automatic shut off will activate.



Priming Cartridge

5. Twist cap to remove from cartridge. Depress handle on dispensing tool to prime cartridge each time product is used until both the white and black resins are coming out of the cartridge.



Attaching Static Mixer

6. Place static mixer onto cartridge and twisting clockwise until fully screwed in. Depress handle on dispensing tool until BonDuit XL comes out of static mixer tip. Discard this excess material.

The BonDuit XL should be a uniform light gray color with no streaking when exiting the static mixer tip.



Apply BonDuit Adhesive

7. Apply BonDuit by pumping slowly in a $\frac{1}{4}$ to $\frac{3}{8}$ -inch (6 to 9 mm) bead around the end of the conduit. Place a second ring around the conduit about half the distant of the depth of the coupling.

After applying release the pressure on cartridge to stop the material from coming out.



Spreading Bonduit on Conduit

- Using a tongue depressor, smooth the BonDuit XL around the conduit so it covers the entire conduit about the depth of the conduit.



Smoothing BonDuit on coupling

- Push the coupling immediately onto the conduit. A rubber mallet made be needed to ensure that the coupling is fully seated.

Smooth any excess BonDuit XL along the conduit/coupling junction. Gloves are recommended.

BonDuit XL develops a strong bond, allowing quick movement or burial. See Table 1 below for work time and cure rate depending on temperature. Do not move joint until set.

TABLE 1

TEMPERATURE	WORKING TIME	FUNCTIONAL CURE
52°F 11°C	40 Minutes	300 Minutes
60°F 16°C	20 Minutes	180 Minutes
70°F 21°C	10- Minutes	120 Minutes
88°F 31°C	5 Minutes	90 Minutes

Note: If material in the static mixer has set up, replace the static mixer.

BonDuit XL kits contain the materials necessary to prepare plastic and metal surfaces for bonding. Each cartridge contains enough material for numerous applications, depending on the size of each coupling or joint. See Table 2.

TABLE 2

CONDUIT DIAMETER	APPROXIMENT NUMBER OF APPLICATIONS PER CARTRIDGE
4 inches (100 mm)	19
6 inches (150 mm)	10
8 inches (200 mm)	4.4
10 Inches (250 mm)	2.7
12 Inches (300 mm)	2
14 Inches (350 mm)	1.5

ADDITIONAL INSTRUCTION TIPS

Cool Weather Application

In cool weather, keep BonDuit XL warm (above 60°F (16°C)). Cold adhesive is difficult to pump, will take longer to cure, and may stress the application tool. You may remove the static mixer and hand mix the adhesive. Keep couplings in a warm area before use. It may be necessary to heat the transition joint to force the BonDuit cure. Below 45°F (7°C), the joint should be heated for 8 hours to reach maximum strength.

To create a mobile warming storage container place cartridges in a cooler and add body warming packets.

Warm Weather Application

In warm weather (above 90°F (32° C)), keep BonDuit cool (below 75°F (24° C)). This prevents the adhesive from curing before coupling is attached. If possible, use adhesive to make bonds in the cooler mornings and out of direct sunlight to slow down cure rate.

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IMPORTANT NOTICE: The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.

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