

powerpatch® Cartridge

Leak Repair System

The PowerPatch® Leak Repair System provides fast and effective “in-field” leak repair for transformers, PILC cables, and other oil and gas insulated electrical equipment.

Once a leak has been temporarily stopped using the two-part Putty, the Sealant is applied and cures to form a strong, durable patch.

Application Instructions



Sand or brush repair area



Clean area with Type TR™
before applying PowerPatch®
Putty



Apply putty ½ inch beyond
leak; ⅛ to ¼ inch thick

1. Clean surface with rag or American Polywater’s Grime-Away™ Multi-Purpose Cleaner Wipes to remove dirt and grime.
2. Scrub the area to be sealed with a steel brush or sandpaper to remove loose particles and oxides, and to roughen the surface. Clean and abrade approximately 3 inches (7.5 cm) around the leak. If surface material is lead, follow prescribed work methods to avoid exposure to lead dust.
3. **Caution:** Wear nitrile gloves (provided) and safety glasses. Refer to MSDS of all products before handling.

For an active leak, apply PowerPatch® Putty to temporarily plug the fluid.

4. Cut off a portion of the PowerPatch® Putty Stick (approximately ½ inch or 1-cm), remove plastic wrap, and knead/mix by hand approximately 2 minutes, until material is well mixed and of uniform color. For a pinhole leak, shape putty into a plug the size of a large pea. For a leaking crack or seam, roll the putty into a rope about ⅛ to ¼ inch (.3 to .6 cm) thick.
5. Wipe leak area with TR-1 solvent wipe to thoroughly clean the surface of contaminants, oils, and to displace any remaining water.
6. Apply the mixed PowerPatch® Putty plug or rope over the leak, spreading it out about ½ inch (1 cm) from all points of the leak area with a thickness of approximately ⅛ to ¼ inch (.3 to .6 cm). The putty will feel warm as it reacts. Apply constant pressure to this putty patch with the palm of the hand for 2–3 minutes until material feels firm. For the best, long-term seal, limit quantity of putty.

To seal polyethylene (or other low energy plastic), apply PowerPatch® Primer (EP-PRIMER) to prepared areas. This product is available separately and is not for use on metallic surface.

7. Use the second TR-1 cleaning wipe to clean surface again and let dry for 15 seconds. (On polyethylene apply primer after cleaning.)



Prime the cartridge



Apply PowerPatch® Sealant over putty patch or leak area



Smooth edges

Note: Prepare as many repairs as possible. This will reduce PowerPatch® Adhesive waste.

8. Place the PowerPatch® Cartridge into dispensing tool and snap it into place.
9. Twist cap 90° counterclockwise 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.
10. Place mixing nozzle onto cartridge and lock into place by twisting clockwise. Depress handle on dispensing tool until PowerPatch® Adhesive comes out of nozzle tip. Pump 1 or 2 more times to make sure you are getting an even mixture. Dispense and discard this excess material.

The PowerPatch® Sealant should be a uniform light gray color with no streaking when it comes out of the nozzle tip

11. Apply the sealant to the prepared surface. Start with the edges of the putty patch and cover with PowerPatch® Sealant surrounding area ½ to 1 inch (1 to 2.5 cm) beyond the leak or patch on all sides. Build a layer ¼ inch thick over the repair area.
10. Smooth the PowerPatch® sealant edges.
11. The sealant has a working time of approximately 6 minutes and a functional cure of approximately 60 minutes, depending on ambient temperature. Do not move area of repair until functional cure is achieved. See chart below.

Temperature	Working Time	Functional Cure
35° F 2° C	40 Minutes	7 Hours
52° F 11° C	20 Minutes	3 ½ Hours
60° F 16° C	10 Minutes	1 ½ Hours
70° F 21° C	6 Minutes	60 Minutes
88° F 31° C	4 Minutes	40 Minutes

Warm Weather Application

In hot weather Above 90°F (32°C) two coats may be needed.

Cool Weather Application

In cool weather below 60°F (15°C) PowerPatch® Sealant may need to be hand mixed. Do not use the static mixer.

7/11

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.

American Polywater expressly disclaims any implied warranties and conditions of merchantability and fitness for a particular purpose. American Polywater's only obligation shall be to replace such quantity of the product proven to be defective. Except for the replacement remedy, American Polywater shall not be liable for any loss, injury, or direct, indirect, or consequential damages resulting from product's use, regardless of the legal theory asserted.

Makers of Polywater® and Dyna-Blue® Cable Lubricants and Pull-Planner™ Software

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