

powerpatch[®]

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 cleaning wipe 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 SDS 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 mm) thick.
5. Wipe leak area with **cleaning 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 mm). 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 **cleaning wipe** to clean surface again and let dry for 15 seconds. (On polyethylene apply primer after cleaning.)



Mix 2-part paste sealant to a uniform grey color



Apply PowerPatch® Sealant over putty patch or leak area



Smooth edges

Important: Mix and apply the PowerPatch® Sealant (steps 8 – 11) quickly.

8. Open one Part A Sealant cup (black paste) and one Part B Sealant cup (white paste). Remove the protective seal from the Part B Sealant cup and discard. A small amount of yellow skin or crust may form on contact with air. This will not harm the performance of the material. Discard any excess hard pieces.
9. Empty all the contents of the Part B Sealant Cup into the larger, Part A Sealant Cup. Mix for about 30–60 seconds until the mixture is a uniform color of gray. For larger repairs, two sets of Part A and B cups may be necessary.
10. Immediately apply the sealant to the prepared surface. Start with the edges of the putty patch and cover with PowerPatch® Sealant using light pressure. Spread the sealant to the surrounding area ½ to 1 inch (1 to 2.5 cm) beyond the leak or patch on all sides. Build a layer ¼ inch (6 mm) thick over the repair area.
11. Smooth the PowerPatch® Sealant edges.
12. Application of the PowerPatch® Sealant should take about 2–3 minutes. The sealant has a working time of approximately 6 minutes and a functional cure in 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