

### DESCRIPTION

The Polywater® Pad N Pole™ Repair system repairs and restores damaged utility enclosures, preventing human, water, pest, or debris entry through the repaired defect.

Pad N Pole two-part clear adhesive bonds to fiberglass, polyethylene, metal, concrete, and composites. The resin repair system provides structural integrity for a durable, long-lasting repair.

Pad N Pole Repair comes in a convenient, field-ready kit. The resin is easy to dispense with a standard high-ratio caulking tool, and quickly wets the repair cloth. Each kit can repair up to 3 square feet. Fabric can be layered as necessary to create a thicker, stronger structure. Repairs are quick and easy and can be done in the field with a single visit and little or no training.

### PERFORMANCE

Repairs made with Polywater Pad N Pole Repair withstand exposure to extreme outdoor temperatures, from -60°F to 180°F (-50°C to 80°C).

Polywater Pad N Pole Repair is versatile. It repairs a wide variety of defects from small cracks to large holes. The system will repair corners, rounded surfaces, and can utilize single or multiple layers of fabric. Multiple layers are appropriate for increased strength over larger defects.

Polywater Pad N Pole Repair is quick. Defects can be repaired in as little as 3 minutes. However, the Polywater Pad N Pole mixed resin allows at least 30 minutes working time. Repairs reach full strength about 12 hours after application but can be painted immediately after application, so no return visit is needed.



*Polywater Pad N Pole is used to repair damaged enclosures.*

### PRODUCT FEATURES

- Protects: Seals defects from unwanted entry.
- Prevents: Helps stop outages.
- Durable: Withstands environmental extremes. It is sunlight (UV) resistant.
- Versatile: Repairs various sizes and shapes of damage.
- Easy to Use: Kit contains materials to complete repair in a single visit.

### TYPICAL APPLICATIONS

Polywater Pad N Pole Repair can be used on a variety of outdoor enclosures including:

- Transformer pads and enclosures
- Lighting pedestals and poles
- Telecom junction enclosures
- Above ground conduits

## COMPONENT PROPERTIES

The Polywater Pad N Pole Adhesive is a 2-part thixotropic paste packaged in a cartridge applicator. The supplied mixing nozzles ensure proper mixing as the product is extruded from the cartridge.

PROPERTY	PART A (RESIN)	PART B (CURING AGENT)
Color	Clear	Clear
Form	600 cps	53,000 cps
VOC content	None	None
Specific gravity (water = 1)	1.13	1.09

## TYPICAL PROPERTIES

Polywater Pad N Pole Adhesive cures to form a solid, durable seal.

PROPERTY	TYPICAL RESULT
Color	Clear
Peak Exotherm @ 70°F/21°C	< 110°F (<43°C)
Hardness 7 Days @ 70°F/21°C (Shore D Durometer)	48
Flexibility 7 Days @ 70°F	Excellent

### Adhesive shear strength (ASTM D1002):

SUBSTRATE	TYPICAL RESULT
PVC	450 lbs/in <sup>2</sup> (3.10 N/mm <sup>2</sup> )
HDPE	100 lbs/in <sup>2</sup> (0.69 N/mm <sup>2</sup> )
Polystyrene	100 lbs/in <sup>2</sup> (0.69 N/mm <sup>2</sup> )
Fiberglass	1650 lbs/in <sup>2</sup> (11.38 N/mm <sup>2</sup> )
Galvanized Steel	875 lbs/in <sup>2</sup> (6.03 N/mm <sup>2</sup> )
Copper	800 lbs/in <sup>2</sup> (5.52 N/mm <sup>2</sup> )
Aluminum	1050 lbs/in <sup>2</sup> (7.24 N/mm <sup>2</sup> )

\*Samples sanded, cleaned, and cured for 24 hours.

### Impact resistance (ASTM F14):

SUBSTRATE	TYPICAL RESULT
Fiberglass	>100 in-lbs (>11 N·m)
Galvanized Steel	>100 in-lbs (>11 N·m)
Polyethylene	>100 in-lbs (>11 N·m)

## MATERIALS

Pad N Pole Repair has excellent adhesion to most surfaces:

- Fiberglass
- Steel
- Composites
- PVC
- Polyethylene
- Concrete
- Steel

## ENVIRONMENTAL RESISTANCE

Pad N Pole Repair can withstand the typical rigors of the outdoor environment.

Temperature Cycle Testing: 10 cycles from 0°F to 130°F (-18°C to 54°C) showed no significant change in adhesion.

Pad N Pole Adhesive withstands ultraviolet and direct sunlight exposure with no decrease in functionality.

## CHEMICAL RESISTANCE

Pad N Pole Repair shows good resistance to salt water, alkaline soap solutions, and mineral spirits (paraffinic solvent).

## PENETRATION TEST

Pad N Pole resists puncture and tearing. Resistance to penetration from a standard screwdriver was tested. Pad N Pole was applied to 4-inch square PVC sheet covering a 1-inch hole with standard procedure. After curing for 24 hours, a #2 Phillips screwdriver head was forced through the Pad N Pole repair and the maximum force was recorded.

FABRIC LAYERS	RESISTANCE TO PENETRATION
1	50 lbf (23 kgf)
2	120 lbf (54 kgf)
3	180 lbf (82 kgf)

## APPLICATION

Polywater Pad N Pole Repair is easy to use.

If necessary, dig out sod and soil to reveal at least 2 inches (51 mm) of undamaged surface around the defect. Abrade the area to be repaired for approximately 1½ inch (38 mm) around the damage, using the abrasive cloth included in the kit. Clean and dry the abraded area with the Type HP™ Tandem Pack (HP-P158ID), removing all dirt and other contaminants. As in any repair involving adhesive application, starting with a clean surface is very important.

Cut the fabric to overlap the damage by approximately 1 inch (25 mm) all the way around. Generously apply the two-part Pad N Pole Adhesive Resin to the cleaned surface around the damaged area and brush to cover repair area. Lay the fabric over the coated damaged area, pressing the fabric into the Pad N Pole Resin. Smooth and press down with the foam brush. The fabric will cling to the adhesive-covered area.

Generously apply additional Pad N Pole Resin to the top of the fabric (including the cloth over the hole) and smooth with the brush until the cloth is fully saturated. Brush the Pad N Pole Resin ½ inch (13 mm) past the edges of the cloth, feathering the resin and ensuring that the edges of the cloth are well adhered to the surface. Pad N Pole Adhesive Resin will set in about 30 minutes and reach full strength in about 12 hours.

Larger repairs (>2", >51 mm) will benefit by adding additional layers of cloth material. Additional layers can be added at any time, before or after the first layer has cured.

The repair area may be spray painted immediately (before full cure), and soil may be replaced at this time, enabling even a complex repair to be done in a single visit.

For additional installation information, please see the Pad N Pole Usage Instructions at: [Pad N Pole Instruction Link](#).

## CURE RATE

Polywater Pad N Pole Adhesive Resin has a working time of 30 minutes at 70°F (21°C), allowing ample time to perform repairs with care and precision. After thickening beyond the point that it can be spread, the product continues to cure, reaching maximum strength in 12 hours at 70°F (21°C).

Working and set time variation with temperature is shown below.

TEMP.	WORKING TIME	SET TIME
40°F (4°C)	90 Minutes	24 Hours
52°F (11°C)	70 Minutes	20 Hours
60°F (16°C)	40 Minutes	16 Hours
70°F (21°C)	30 Minutes	12 Hours
88°F (31°C)	20 Minutes	8 Hours

## STORAGE AND HANDLING

Keep cartridge tightly closed in a cool, dark, dry location. Reseal cartridge after use. All cartridges should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Unopened product has a shelf life of 18 months.

## SAFETY

Polywater Pad N Pole Repair has a low level of toxicity. Use good industrial hygiene practice and follow any precautions during use. Avoid personal contact with the uncured product. See SDS for specific details

## MODEL SPECIFICATION

*The statement below may be inserted into a customer specification to help maintain engineering standards and ensure work integrity.*

The approved enclosure repair system is Polywater® Pad N Pole™ Repair. The repair system shall come in a multiple-use kit that will provide the materials needed for the repair.

The packaging shall automatically mix and meter the two-part repair adhesive. The application tool must be a standard high-ratio caulking gun. The cure rate of the adhesive shall allow 30 minutes of working time (at 70°F/21°C) to apply and smooth the repair. The repair shall be spray paintable immediately after application with no reduction in ultimate strength. Product shall be suitable for use on various enclosure materials, including fiberglass, HDPE, concrete, steel, aluminum, and composites.

Once cured, the repair shall be watertight. The bond shall be strong enough to withstand an impact of over 100 in-lbs (>11 N·m) on the fabric as measured by ASTM G14.

The cured product shall be resistant to water, salt water, oils, and ultraviolet degradation. The cured bond shall withstand temperature extremes from -60°F to 180°F (-50°C to 80°C). It shall withstand multiple freeze-thaw cycles.

## ORDER INFORMATION

CAT #	PACKAGE DESCRIPTION
BRK-250KIT1 (1 unit/case)	Kit contains: 1 - 250 mL Pad N Pole adhesive cartridge 6 - Mixing Nozzles 1 - Strip of Sanding Cloth 6 - Type HP™ wet/dry cleaning wipes (HP-P158ID) 6 - Foam Brushes 1 - Fabric 72 in. by 6 in. 1 - Instruction Sheet
BRK-250KITB6 (1 unit/case)	Bulk kit contains 6 Individual Kits, BRK-250KIT1
MXR-18S-10	10-pack mixing nozzles for BRK
TOOL-250 (1 unit/case)	Dispensing Tool

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## CONTACT US

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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.

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.

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