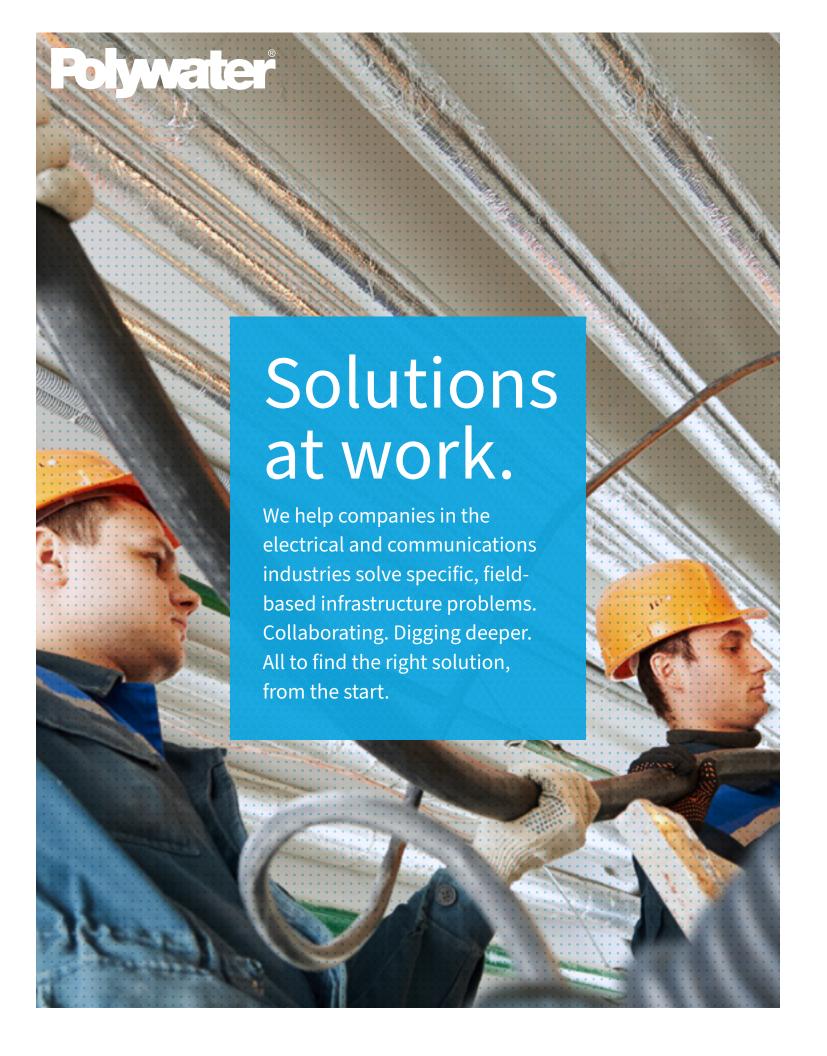


# Polymater Resolutions at work.









### Behind the scenes and in the field.

Whether it is new construction, infrastructure upgrades, or grid and network maintenance, companies have relied on us for more than a product solution. Unlike other specialty-chemical manufacturers, Polywater provides:



**Extensive Industry Knowledge** 



Unmatched Technical Expertise

It is the access to this **total support** of resources—from products to customer care—that has helped companies

build and maintain more reliable systems, reduce costs,

their safety and sustainability goals.

protect and maximize the life of critical assets, and support



**Exceptional Planning Resources** 



**Superior Specialty Products** 

**SEALANTS & ADHESIVES** 

MECHANICAL SEALS

**LUBRICANTS** 

CLEANERS

SPECIALTY



## **FST**<sup>™</sup> Foam Duct Sealant Family

2-PART, CLOSED-CELL FOAM DUCT SEALANT



A Proven Track Record for Providing Durable and Reliable Protection in the Toughest Environments

Polywater FST is a UL recognized component and passed UL 94 with



Holds 22 ft (6.7 m) continuous water head pressure and up to 90-ft (27 m) surges

### • VERSATILE

Seals conduits of all sizes and complex cable configurations

### • RE-ENTERABLE

Seal can be removed for future cable installations

### COMPATIBLE

Use with a wide range of cable jacket and conduit materials

### NEC COMPLIANT

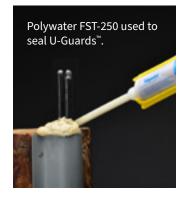
Creates airtight/watertight conduit seals and is fire retardant

### **Protects Conduit and Raceway Systems**

Polywater® FST™ Foam Duct Sealant is used to protect mission-critical electrical and telecommunication systems from water, gases, and other unwelcome intrusions. The closed-cell, foam sealant technology evenly flows around cables and in conduit space to create a strong bond. It expands and completely cures into a rigid, robust seal without relying on environmental moisture.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	FST-250KIT1	Kit Includes:  1 - 8.5 oz. FST Cartridge (cat# FST-250);  3 - Mixing Nozzles (cat# MXR-30T-10);  4 - 24" Foam Damming Strips (cat# FST-DAM);  1 - 12" Sanding Cloth; 1 - Pair of Gloves;  1 - Positioning Rod for Foam Dam;  1 - Pre-treating Wipe (cat# HP-P158ID);  1 - Resealing Cap; 1 - Instruction Sheet  TOOL-250 NOT INCLUDED. SOLD SEPARATELY.	1
	FST-250KIT	Same as Kit Above in a Box of 6	6
	FST-250	1 – 8.5 oz. FST Cartridge; 1 – Mixing Nozzle; 1 – Resealing Cap	12
	MXR-30T-10	10-Pack of Mixing Nozzles for FST-250	1
	TOOL-250	High-Ratio Caulking Tool for FST-250	1
	FST-DAM	1 – 24" Foam Damming Strip	24
Wille	FST-MINI-1	Kit Includes: 1 – 50 ml FST Cartridge; 2 – Mixing Nozzles (cat# MXR- 20T-10); 6 – Foam Discs; 2 – Pairs of Gloves; 1 – Instruction Sheet	1
FST	FST-MINI-B6	6 – FST-MINI-1	1
	TOOL-50-11	1 – Dispensing Tool for FST MINI	1
	MXR-20T-10	10-Pack of Mixing Nozzles for FST MINI	1



### **SPECIFICATIONS AND APPLICATIONS**

- Application: Polywater FST-250 is recommended for conduits of 2 inches (50 mm) or larger. Polywater FST™ MINI is recommended for conduits less than 2 inches (50 mm).
- Codes: Meets most countries' electrical codes. Creates air/watertight seals and is self-extinguishing. Check local codes for performance criteria. Meets 2011, 2014, 2017, 2020 NEC Articles 225.27, 230.8, 300.5(G), 300.7 (A), 501.15 (b)(2) on Raceway Seals.
- Materials: Bonds to PVC, GRS, EMT, IMC fiberglass, and PE conduits.
- Fire Retardant: Polywater FST is a UL recognized component and passed UL 94 with a Class HBF fire retardant rating.



### **Polywater Foam Sealant Quantity Calculator**

Perform calculations of how much FST Foam Sealant to use based on conduit ID, cable occupancy, and number of seals.



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AFT™

### **CLOSED-CELL FOAM AEROSOL CONDUIT SEALANT**



An Easy-to-Use, Fast-Setting, and Durable Sealant



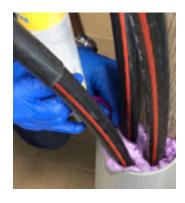
- QUICK & EASY INSTALLATION
   Complete foam application
   in seconds, cures in minutes,
   saves labor
- RELIABLE
   Closed-cell structure protects
   cable network with 10 ft (3 m) of
   continuous water head pressure
- RE-ENTERABLE
   Easily removed to facilitate new cable installation or old cable removal
- VERSATILE
   Multipurpose, closed-cell
   sealant is effective in wide range
   of field applications, including
   vertical conduits
- MULTIPLE-USE CAN
   Good for several seals in
   all conduit sizes

### **Fast and Durable**

Polywater® AFT™ two-part foam seals cable networks with faster installation time and higher performance when compared to duct putty or insulating hardware store foams. Polywater AFT expands and cures in minutes to create a rigid, airtight and watertight seal. It is compatible with all cable jackets and bonds to a variety of materials in a range of applications such as conduits, riser poles, U-Guards™, raceway entrances, and more.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE	
AFT-16P4		1 – 16 oz (480 ml) Can; 2 – Actuators	4	
AFT	AFT-16	1 – 16 oz (480 ml) Can; 2 – Actuators	15	
-	AFT-SAE10	10-Pack of Actuators with Standard Extension Tube	1	
	AFT-FAE10	10-Pack of Actuators with Flexible Extension Tube	1	









Polywater AFT can be used to seal more than conduits, including solar inverters, riser poles, U-Guards, raceway entrances, and more.



### **SPECIFICATIONS AND APPLICATIONS**

- Fire Retardant: Polywater AFT is a UL recognized component and passed UL 94 with a Class HBF fire retardant rating.
- Codes: Meets most countries' electrical codes. Creates air/watertight seals and is self-extinguishing. Both the TDMM and TIA recommend that all conduits entering buildings are sealed. Check local codes for performance criteria. Meets 2011, 2014, 2017, 2020 NEC Articles 225.27, 230.8, 300.5(G), 300.7 (A) on Raceway Seals. Complies with TIA-758-B Standard 5.1.1.2.8, 5.4.2.3 and 7.4.2.8.1.

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### InstaGrout™

### **UTILITY ENCLOSURE PAD SEALANT**



A Thorough and Easy Solution to Prevent Costly Unplanned Outages

- SECURES ENCLOSURES
   Keeps rodents, snakes, insects, and water from entering enclosures
- EASY TO USE
   Ready to mix and apply—no water or electricity needed
- CUSTOM INSTALLATION
   Self-levels and expands to seal the entire opening
- RE-ENTERABLE
  Saw or drill to install new conduit stub ups, cables, or ground rods
- PROTECTS
   Permanent protection through weather extremes or equipment changeouts

### **Safeguard Enclosures and Equipment from Damage**

Polywater® InstaGrout™ is a pourable, two-part urethane foam that seals pad-mounted equipment openings to prevent outages and service disruptions caused by animal or moisture ingress. It is safer to use and more effective than concrete grout and will not collapse during changeouts. Polywater InstaGrout thoroughly adheres to various pad and conduit materials, creating a permanent seal that can be re-entered to install new ducts.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	РМТ-1	Kit Includes: 1 – 750 ml Burst Pack; 1 – Pair of Gloves; 1 – Instruction Sheet  Kit covers 1 square foot (approx.) at a three-inch depth/930 cm² at 7.6 cm depth	2
	PMT-2	Kit Includes: 1 – 1500 ml Burst Pack; 1 – Pair of Gloves; 1 – Instruction Sheet  Kit covers 2 square feet (approx.) at a three-inch depth/1860 cm² @ 7.6 cm depth	2
-	РМТ-3	Kit Includes:  1 – Bottle Part A; 1 – Bottle Part B;  1 – Mixing Pail; 1 – Mixing Stick; 1 – Pair of Gloves;  1 – Instruction Sheet  Kit covers 3 square feet (approx.) at a three-inch depth/2790 cm² at 7.6 cm depth	1
Type PAT  Bay be	PMT-10	Kit Includes:  1 – Jug Part A; 1 – Jug Part B; 1 – Mixing Pail;  1 – Pair of Gloves; 1 – Instruction Sheet  Kit covers 10 square feet (approx.) at a three-inch depth/9290 cm² at 7.6 cm depth	1

Contents of the Polywater InstaGrout PMT-3 Kit.





### **SPECIFICATIONS AND APPLICATIONS**

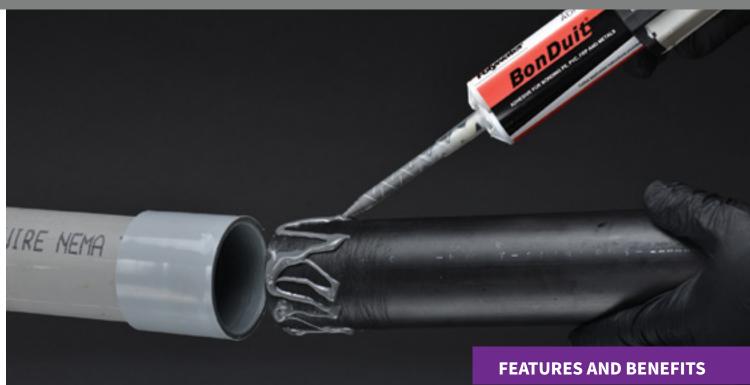
- Material Compatibility: Cured Polywater InstaGrout Sealant is compatible with cable jacket materials, conduits, and various transformer pad materials. The foam is an inert solid that will not compromise the jacket material.
- Adhesion: Polywater InstaGrout Sealant has good adhesion to a variety of materials found in electrical cabinets, including PVC, copper, aluminum, fiberglass pads, polymer concrete pads, polyester, and polyethylene.
- Water and Chemical Resistance: Polywater InstaGrout Sealant does not absorb water and is chemically resistant to gasoline, oils, dilute acids, and bases.

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:10:

## **Polywater BonDuit**®

### **CONDUIT ADHESIVE**



Creates Strong, Watertight and Airtight Bonds with HDPE and Fiberglass Conduit

tested to III Standard 746C



 VERSATILE Bonds HDPE to PVC, rigid steel, fiberglass conduits and fittings,

 SUPERIOR Stronger pullout strength than most mechanical couplings

and transition couplings

 COST EFFECTIVE Less expensive than mechanical couplings

 CONVENIENT Kits contain all application components required for a quick installation

 UL RECOGNIZED Helps meet the NEC code regarding PE conduit installations

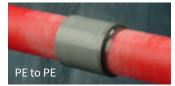
### **Creates Strong, Long-Lasting Bonds**

Polywater® BonDuit® joins polyethylene duct (PE pipe) to PVC, fiberglass, or metal conduits. It is a superior, easy-to-apply alternative to joining conduits with mechanical couplings. The rapid-cure, two-part resin adhesive forms a strong watertight and airtight seal and delivers a durable bond that can withstand movement and vibration. Ideal for installation along roadsides or near electrical equipment like transformers or switchgear.



A-F			
	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	вт-кіт	Kit Includes: 2 – 50 ml Adhesive Cartridges; 8 – Mixing Nozzles; 1 – Strip Sanding Cloth; 8 – Type RP™ Cleaning Wipes (cat# RP-1)	1
	BT-KITB6	1 Box with 6 BT-KIT	1
	BT-CART12PK	12 – 50 ml Adhesive Cartridges; 36 – Mixing Nozzles	1
	TOOL-50-11	1 – Dispensing Tool	1
	MXR-12T-10	10-Pack Mixing Nozzles	1
	BTXL-250KIT1	1 – 250 ml Adhesive Cartridge; 5 – Mixing Nozzles; 5 – Type RP Cleaning Wipes (cat# RP-1L); 5 – Pairs of Gloves; 1– Strip Sanding Cloth; 1 – Instruction Sheet	1
	BTXL-250KITB6	6-BTXL-250KIT1	1
	BTXL-250CART12	12 – 250 ml Adhesive Cartridges; 12 – Mixing Nozzles; 12 – Pairs of Gloves; 1 – Strip Sanding Cloth; 1 – Instruction Sheet	1
	MXR-25B-10	10-Pack Mixing Nozzles	1
	TOOL-250	1 – High-ratio Caulking Tool	1







### **SPECIFICATIONS AND APPLICATIONS**

- Available in Two Types: BonDuit and BonDuit® XL. BonDuit XL is an excellent option for 3-inch (75 mm) conduits and larger. It helps meet the NEC code for transitioning above ground and to PVC or galvanized rigid steel. BonDuit XL can also be used as a mechanical coupling for conduit diameters higher than 5 inches (125 mm). Both types can be used for indoor and outdoor projects.
- Compliance: BonDuit and BonDuit XL are UL recognized adhesives. Both pass testing under UL Standard 746C, "Polymeric Adhesive System for Indoor and Outdoor Use with Electrical Equipment". Meets NEC 352.48, 353.48, and 355.48 for joining PVC, HDPE Polyethylene, and RTRC fiberglass conduit. Both are the perfect choice for transition from underground HDPE pipe to aboveground connections. PVC pipe cement does not bond HDPE (NEC code 353.12.1).



**Polywater BonDuit Adhesive Quantity Calculator** 

Determine the number of adhesive cartridges needed based on the number of connections and the conduit size.



UPR™

**WOOD UTILITY POLE REPAIR** 



Restores the Integrity of Damaged Wood Utility Poles to Maximize Life Expectancy



- EXPANDS

  Sealant completely fills
  irregular-shaped cavities—
  expands above primary hole,
  requiring no pilot hole
- ADHERES
   Integrates with wood and expands between fibers
- HARDENS
   Cures to the strength of wood poles
- GAFFABLE
  Safely holds climbing spikes or gaffs
- QUICK AND EFFICIENT
   Two-part formula mixes in nozzle when applied and is deployed with a caulking gun—requires no special tool installation

### **Prevent Unplanned Outages and Safety Hazards**

Polywater® UPR™ makes it easy to repair woodpecker damage, cracks, and pole line hardware holes on wood utility poles. The resin and hardener are specially formulated to expand and fill irregular-shaped cavities to protect poles from rot and restore the pole to a secure condition. UPR is available in two versions and several kit options to address different types of damage.



			$\vee \vee \vee \vee \vee \vee \vee$
	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	UPR-NFKIT4	Kit Includes: 4 – 250 ml UPR No Flow Pole Repair Cartridges; 6 – Mixing Nozzles; 1 – Roll of Stretch Wrap; 1 – Pair of Gloves; 1 – Instruction Sheet	1
	UPR-NFKIT12	Kit Includes: 12 – 250 ml UPR No Flow Pole Repair Cartridges; 18 – Mixing Nozzles; 1 – Roll of Stretch Wrap; 3 – Pairs of Gloves; 1 – Instruction Sheet	1
	UPR-NF6B10	Kit Includes: 10 – 600 ml UPR No Flow Pole Repair Side-By-Side Cartridges; 10 – Mixing Nozzles; 1 – Roll of Stretch Wrap; 3 – Pairs of Gloves; 1 – Instruction Sheet	1
	UPR-NF250PT1	Kit Includes: 2 – 250 ml UPR No Flow Pole Repair Cartridges; 1 – 18" x 18" Canvas; 50 – ½" Staples; 1 – Pair of Gloves; 1 – Instruction Sheet	1
	TOOL-250	1 – High-ratio 250 ml Caulking Tool	1
	TOOL-600	1 – High-ratio 600 ml Caulking Tool	1
	UPR-PRKIT3	Kit Includes: 3 – 250 ml UPR PR Cartridges; 4 – Mixing Nozzles; 5 – Green-treated Wood Blocks; 1 – Roll of Stretch Wrap; 1 – Pair of Gloves; 1 – Instruction Sheet	1
	UPR-PRKIT12	Kit Includes: 12 – 250 ml UPR PR Cartridges; 16 – Mixing Nozzles; 18 – Green-treated Wood Blocks; 1 – Roll of Stretch Wrap; 4 – Pairs of Gloves; 1 – Instruction Sheet	1



### **SPECIFICATIONS AND APPLICATIONS**

- Available in Two Types: "NF" is a quick-gel version that will not leak or drip out of wood cracks at the bottom of the hole. The "PR" version is a liquid formula that flows around Polywater wood-block fillers (included in the PR kit) to save material.
- Strength and Gaffability: UPR has good compressive strength, similar to Southern Yellow Pine and Douglas Fir, tested by ASTM D1691. Seals are gaffable. The load to penetrate a UPR seal was measured with a pole cut-out test using a Buckingham gaff. Values fall within the same range as Southern Yellow Pine and Douglas Fir. Poles must be inspected and tested before climbing per OSHA 1910.269 App D. Repairs made with UPR satisfy OSHA requirements and reduce the likelihood of decay.
- In-Service Temperature Use Range: -40°F to 150°F (-40°C to 66°C).

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## PowerPatch® Family

### TRANSFORMER LEAK REPAIR SYSTEM



An Economical and
Effective Way to
Repair Essential Grid
Assets and Protect
the Environment



- STRONG MOISTURE SEAL Protects transformers from accelerated aging
- HIGH-PRESSURE RESISTANCE
   Seals leaks on the largest
   oil-filled and GIS systems
- STRONG MATERIAL ADHESION
   Bonds to steel, copper,
   porcelain, lead, and other
   common electrical substrates
- DIELECTRIC COMPATIBILITY
   Reduces partial discharge of oil and solid insulation

### **Maximize the Life of Essential Assets**

Polywater® PowerPatch® repairs active leaks of oil and SF<sub>6</sub> gas from transformers in the field, without equipment shutdown. Whether repairing small pinholes, cracks, flanges, enclosures, or large areas, its strong material adhesion and fast cure time create a seal that protects transformers from accelerated aging and reduces costly unplanned outages and environmental risks.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	EPCT-KIT1	Multi-use Kit Includes: 2 – PowerPatch 2-part Cartridges; 4 – Mixing Nozzles; 2 – 1 oz Putty Sticks; 8 – Type RP™ Cleaning Wipes (cat# RP-1); 1 – 24" (61 cm) Sanding Cloth; 4 – Application Sticks; 1 – Instruction Sheet	1
	EPCT-KITB6	1 Box with 6 EPCT-KIT1	1
	TOOL-50-11	1 – Dispensing Tool (for EPCT Kits Only)	1
	EP-KIT11	Kit Includes: 1 – Sealed Plastic Bag with 2-part Sealant (part A & B); 1 – 1 oz Putty Stick; 2 – Type RP Cleaning Wipes (cat# RP-1); 1 – 24" (61 cm) Sanding Cloth; 2 – Mixing Sticks; 1 – Pair of Gloves; 1 – Instruction Sheet	1
	EP-KITB6	1 Box with 6 EP-KIT11	1
	EP-KITB12	1 Box with 12 EP-KIT11	1
	EP-KIT51	Kit Includes: 6 – 2-part Sealant Sets (part A & B); 1 – 4 oz (7"/18 cm) Putty Stick; 12 – Type RP Cleaning Wipes (cat# RP-1); 6 – 24" (61 cm) Sanding Cloths; 12 – Mixing Sticks; 6 – Pairs of Gloves; 1 – Instruction Sheet	1
Contents of the Polywater PowerPatch EP-KIT11.	EPSC-KIT1	Kit Includes: 2-part Sealant, PowerPatch Slow Cure Adhesive Part A and B (350 grams total); 3 – Type RP Cleaning and Preparation Wipes; 1 – 12" (30.5 cm) Strip Sanding Cloth; 4 – Mixing Sticks; 1 – Pair Disposable Gloves; 1 – Instruction Sheet	1
	EP-STICK4	1 – 4 oz (7"/18 cm) Putty Stick	12



Completed repair with Polywater PowerPatch.

### **SPECIFICATIONS AND APPLICATIONS**

- **Electrical Reliability:** Moisture can damage transformers. Sealing leaks as quickly as possible is key to keeping moisture from entering transformers and causing premature or catastrophic failure.
- Chemical Resistance: Sealant chemically resists dielectric fluids,  $SF_6$  gas, ultraviolet light, water, and oil.
- Leak Sealing Performance: Sealant shows good adhesion to numerous metals, ceramics, and rubbers; and no leakage under high pressure (up to 0.7 MPa) with both air and polybutene oil.
- Fast Cure: Can be painted immediately to match color and further protect from UV.
- Electrical Testing: Platen samples are cast and fully cured. Sealant is nonconductive. Dielectric strength is 43 kV using ASTM D149, Method A.

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### Pad N Pole<sup>™</sup>

**UTILITY ENCLOSURE REPAIR SYSTEM** 



Restores Utility **Enclosures to Prevent** Premature Aging of Equipment and Costly Replacements



### PROTECTS

Fixes and restores a wide variety of defects to prevent water, pest, or human intrusion

### • PREVENTS

Helps stop outages and costly changeouts

### DURABLE

Withstands environmental extremes and is UV resistant

#### VERSATILE

Repairs damage of various shapes and sizes

### • EASY TO USE

Kit contains materials to complete repair in a single visit

### **Restores System Integrity**

Polywater® Pad N Pole™ Repair System provides a durable, long-lasting restoration, preventing outages and costly replacements. The repair system is supplied in kits that contain everything needed to perform multiple repairs and fix a wide variety of defects, from small cracks to large holes.





Contents of the BRK-250KIT1

CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
BRK-250KIT1	Kit Includes:  1 – 250 ml Pad N Pole Repair Adhesive Cartridge;  6 – Mixing Nozzles;  1 – Strip Sanding Cloth;  6 – Type HP™ Wet/Dry Wipes (cat# HP-P158ID);  6 – Pairs of Gloves;  6 – Foam Brushes;  1 – 72" x 6" Felt Fabric;  1 – Instruction Sheet  Dispensing Tool Not Included	1
BRK-250KITB6	1 Box with 6 BRK-250KIT1	1
TOOL-250	1 – High-ratio 250 ml Caulking Tool	1
MXR-25B-10	10-Pack of Mixing Nozzles	1

Polywater Pad N Pole works quickly and can be painted immediately after application.

### SPECIFICATIONS AND APPLICATIONS

- **Applications:** Polywater Pad N Pole is perfect for repairing electrical enclosures, transformer pads, fiberglass light poles, PVC and fiberglass conduit, and riser poles. The felt in the kits can be custom cut to cover and mold to various types of damage. Multiple layers can be applied for increased strength over large areas. Pad N Pole can be painted immediately to match the color of the pad. A standard high-ratio caulking tool should be used to dispense product.
- Repair Time: Pad N Pole Repair is quick and easy to install. The mixed resin has 30 minutes working time at 70°F (21°C). The adhesive bonds to fiberglass, steel, polyethylene, metal, concrete, and composites. It can be painted immediately after application, eliminating the need for a return visit. Repairs reach full strength in 12 hours.
- Temperature: Repairs can withstand exposure to extreme outdoor temperatures, from -60°F to 180°F (-50°C to 82°C).

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Dura-Plate<sup>™</sup> 100





High-Strength Protection of Concrete and Masonry Surfaces from Corrosive Chemical Sources



- STRONG
   Excellent adhesion to concrete, PVC, polyethylene, wood, and metals
- DURABLE
   Excellent resistance to hydrogen sulfide and sulfuric acid
- NON-SAGGING
   Great for vertical and overhead applications
- TROWELABLE
   The 3-part thixotropic resin system spreads with ease and sets firm when finished
- PROTECTS
   Creates a resilient waterproof barrier
- EASY APPLICATION Requires no primer

### **Gives Concrete a Protective Shield**

When cured, Polywater® Dura-Plate™ 100 Epoxy Mortar forms a high-strength, acid-resistant and protective seal coating for sanitary sewer lift stations, manholes, vaults, and other structures. Polywater Dura-Plate is impervious to water and resists attacks from hydrogen sulfide and sulfuric acid generated by microbiological sources. It is safe to use and contains no Volatile Organic Compounds (VOCs).





The completed installation leaves a strong, durable, and protective barrier.



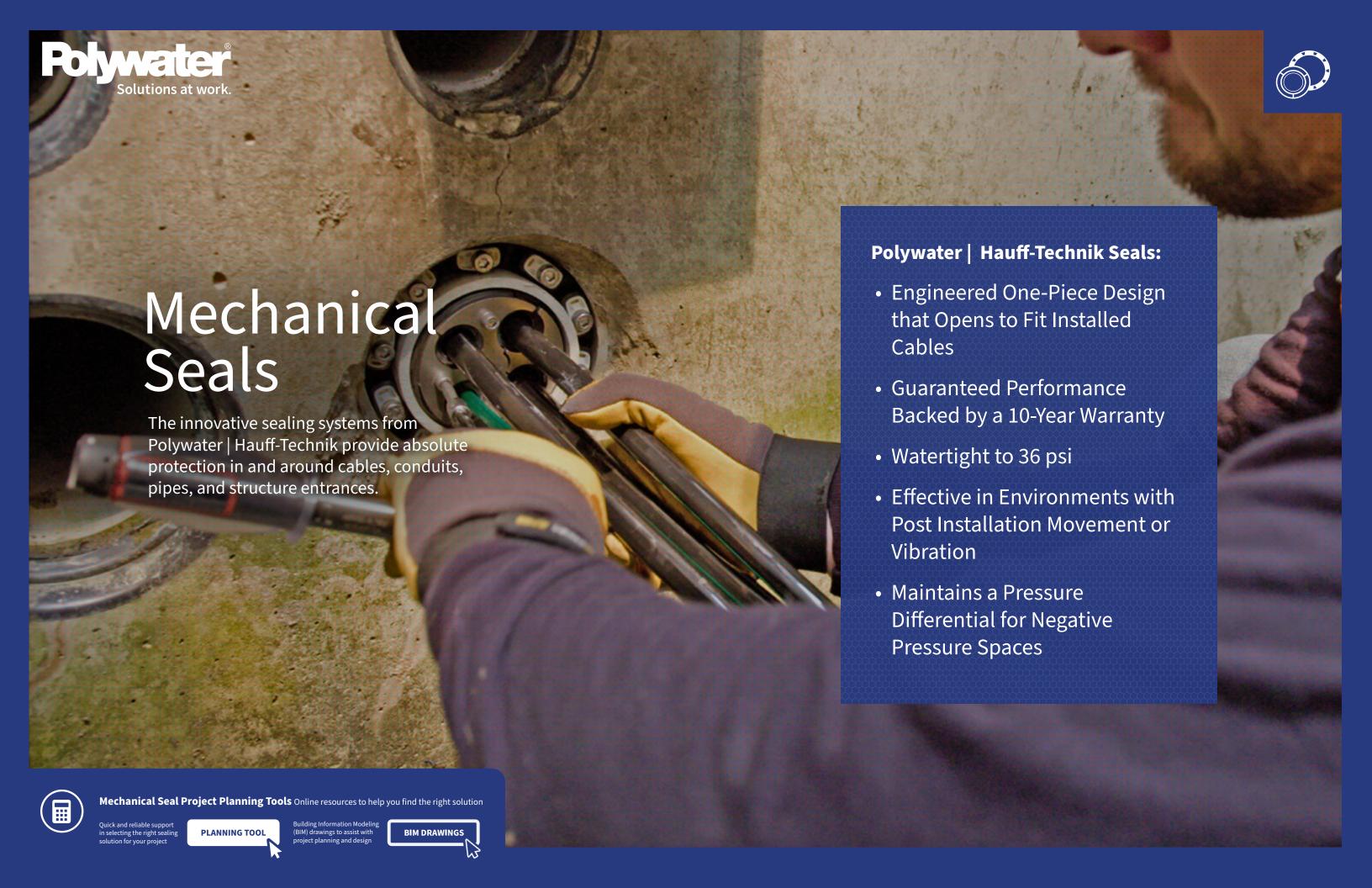
The 3-part resin system mixes quickly and easily with no elaborate setup.

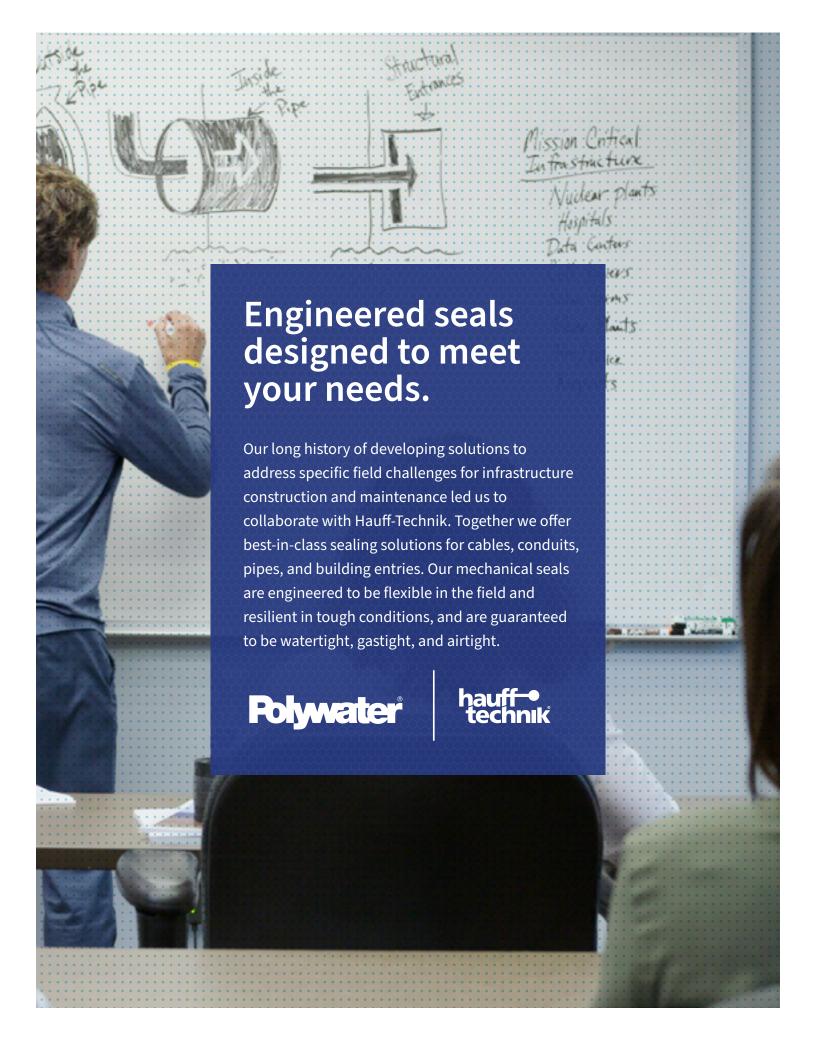
### SPECIFICATIONS AND APPLICATIONS

- **Use:** Polywater Dura-Plate 100 Epoxy Mortar is a 3-part thixotropic resin system packaged in a pail kit with a Sika Color Pack. Good surface preparation is critical. Mix only complete batches until blend is a uniform color. Do not thin with solvents.
- Safety: Use of eye protection and protective gloves is recommended.
- Cleanup: Clean uncured material from equipment with Grime-Away™ Multipurpose Cleaning Wipes or Type HP™ Cleaner. Remove cured material mechanically. Clean hands with soap and water or Grime-Away Wipes.
- Installation Temperature: 45°F to 120°F (4°C to 50°C).
- In-service Temperature: -40°F to 250°F (-40°C to 120°C).

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### Performance that is flexible, reliable, and resilient.

Whether you are looking to provide hardened protection for data centers, wastewater treatment facilities, electrical utility substation control houses, underground electrical or telecommunications utility systems, or renewable energy sources such as wind and solar, we have a sealant solution to match.



### **Reliable External Seals**

We provide labor-saving seals that are tailor-made to meet specific performance specifications and industry code requirements. They provide protection in challenging environments.



### **Internal Conduit Security**

Engineered seals with one-piece split design and segmented ring technology allow field crews to seal around already laid cables/pipes and accommodate cable OD changes on site.



### **Secure and Scalable Entrances**

Create secure, modular, sealed entrances into structures that also allow for future expansion. Explore our options for duct banks that protect single or multiple cables and pipes.

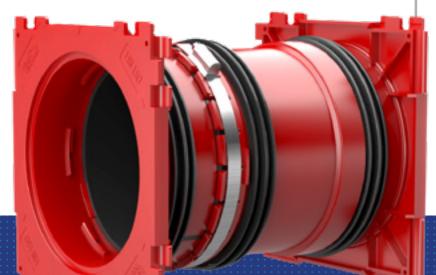
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### PHSI 150 Varia

DOUBLE WALL INSERT, ADJUSTABLE LENGTH FOR SETTING IN CONCRETE



Create Intelligent
Pathways into Buildings,
Right from the Start



### • ADJUSTABLE

Infinitely moveable to the required wall thickness on site

### CONVENIENT

Push-fit socket frame system for block assembly on site

### • TWO-WAY

Connections of system sealing possible on both sides

### • SMART DESIGN

Easily insert various system covers for sealing cables and connecting smooth and corrugated conduits

### • OPTIONS AVAILABLE

For double walls/element walls

### WATERPROOF

Concrete Stress Class 1, Stress Class 2

### **Built to Be Built In**

Creating a better pathway into buildings begins with the Varia. Pour-in-place conduits, sleeves, or core drilling leave room for error and are labor intensive to install. Planning ahead with the PHSI 150 Varia allows for the design of structures that include the types of utility pipes, conduits, or cables needed now, while providing multiple watertight entrances for the future.



	ITEM	SUITABLE FOR WALL THICKNESS INCH (mm) CATALOG #	
		7.874 – 10.236 (200 – 260 mm)	PHSI-150-K2-VARIA260
	Double Wall Insert	10.236 – 14.370 (260 – 365 mm)	PHSI-150-K2-VARIA365
A hex key is included to adjust the PHSI 150 Varia to accommodate various wall		14.370 – 18.504 (365 – 470 mm)	PHSI-150-K2-VARIA470
thicknesses.	Double Wall Insert	18.504 – 22.638 (470 – 575 mm)	PHSI-150-K2-VARIA575

For wall thickness less than 8 inches (203 mm), PHSI 150 Single Wall Inserts are available. Contact support@polywater.com for more information

### PRODUCT EXAMPLE

#### PRODUCT INSTALLATION













We recommend the use of PHSI-AH-40 spacers with the PHSI 150 wall inserts when installing 4" to 6" conduits.



Matching accessories, such as spacers to enlarge axial spacing to 9.843 inches (250 mm), are found on the Accessories page.



PHSI-AH-40

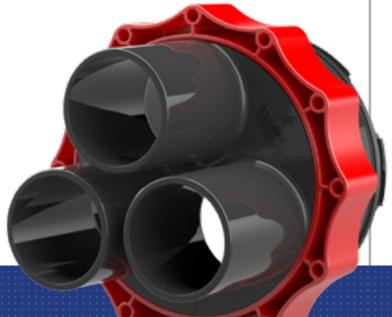
Contact us for additional building entry solutions. polywater-haufftechnik.com

## **System Covers**

**SYSTEM COVER SEAL** 



For Sealing Empty Wall Inserts and Cables



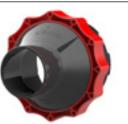
- SECURE TRANSITIONS Excellent for transitioning directburied or open-trenched cables
- SIMPLE No elaborate module structure. Simple to re-use and re-install
- INTEGRATED Torque control system
- **GASTIGHT & WATERTIGHT** Up to 7.25 psi (0.5 bar) when installed on outside of the building
- **SECURE** All segment openings closed with blind plugs

### **Create Secure Transitions into Buildings or Structures**

Direct-buried cable entering an underground structure or building entrance should be sealed to ensure that water, dirt, gases, and rodents can't penetrate. Heat-shrink or cold-shrink system covers integrate with the PHSI-150 Varia to create a secure transition for cables on the outside of vaults, manholes, substations, or building entrances. Designed for cable diameters 0.197-1.220" (5-31 mm).



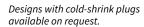
#### PRODUCT EXAMPLES





PHSI 150 – SYSTEM COVERS, HEAT SHRINK-FIT SLEEVE			
ITEM	APPLICATION AREA CABLE/PIPE DIAMETER INCH (mm)	CATALOG #	
System covers with 1 socket included 1 x thermal plug 1 x centering tape	0.984 – 3.070 (25 – 78 mm)	PHSI-150-D1	
System covers with 3 sockets included 3 x thermal sleeves 1 x centering tape	0.984 – 3.070 (25 – 78 mm)	PHSI-150-D3	
System covers with 7 sockets included 7 x thermal sleeves	0.984 – 3.070 (25 – 78 mm)	PHSI-150-D7	







Inserting a PHSI-150-D3 into a Varia.



Securing the system cover.



Applying heat to the heat shrink.

### PRODUCT EXAMPLE



PHSI 150 – COVER			
ITEM APPLICATION AREA CABLE/PIPE DIAMETER INCH (mm) CATALOG #			
Transparent closing cover	Blind cover	PHSI-150-DT	



Matching accessories, such as blind plug for unused openings, centering tapes, and repair sleeves, are found on the Accessories page.



Contact us for additional building entry solutions. polywater-haufftechnik.com

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### Segmento

**SYSTEM COVERS AND SYSTEM SEALS FOR CABLES** 



Flexible Cable Management Solution that Integrates with PHSI-150 Varia



- FLEXIBLE & GENTLE Sealing with Technogel
- INTEGRATED

  Torque control system
- **SIMPLE**Easy to re-use and re-install
- SECURE
  All segment openings closed with blind plugs
- GASTIGHT & WATERTIGHT
   Up to 7.25 psi (0.5 bar) when installed on outside of the building

### A Flexible, Organized, and Secure Solution

Segmento offers an engineered cable-management solution for structure entrances. It accommodates a wide range of electrical, signal, telecommunication, and PV cables of various sizes. It arranges them in a more organized manner, providing an easy way to change out cables or update a system—a concern for data centers or any application needing a quick response to outages or upgrades.



#### PRODUCT EXAMPLES







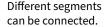




ITEM	CATALOG #
System cover as segment receptacle	PHSI-150-S3
The violet segment application area for 2 cables, diameter 0.787 – 1.220 inch (20 – 31 mm), including 2 blind plugs	PSEG-2/31
The yellow segment application area for 3 cables, diameter 0.787 – 1.023 inch (20 – 26 mm), including 3 blind plugs	PSEG-3/26
The blue segment application area for 6 cables, diameter 0.59 -0.826 inch (15 – 21 mm), including 6 blind plugs	PSEG-6/21
The orange segment application area for 8 cables, diameter 0.196 - 0.590 inch (5 – 15 mm), including 8 blind plugs	PSEG-8/15

4 different segment options







Wall inserts fitted with SEGMENTOS.



Matching accessories, such as the lubricant and torque control screwdriver for installation, are found on the Accessories page.





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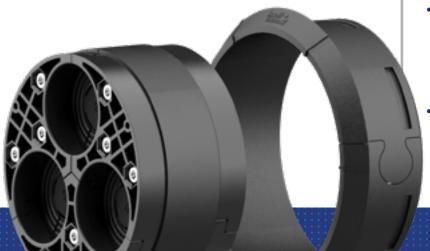
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### PHSI 150 DG

CABLE ENTRIES FOR THE PHSI 150 SYSTEM AND RETROFIT SEALING



Adjustable and Durable Cable Entries that are Part of a Retrofit Sealing Solution



• ADAPTABLE
Split seal for retrofit installation

### • ADJUSTABLE

Allows individual adjustment to the diameter of installed cables on site

### • EASY INSTALLATION

Labeled segmented rings for ease of installation

### • DURABLE DESIGN

Constructed of glass fiber reinforced polyamide. Screws and nuts made of stainless steel V4A (AISI 316L)

### PRESSURE-TIGHT

Up to 36 psi (2.5 bar)

### A Key Component of a System Solution

The PHSI-150-DG consists of the PHRK seal and the PHSI-AR split adapter ring for use with the PHSI-150 Varia. The ring locks into the PHSI-150 Varia to create a smooth opening for the PHRK to seal the cables, pipes, or conduits entering a structure. The PHRD and PHSD series seals can also be installed into the PHSI-150 Varia using the PHSI-AR adapter ring that comes with the PHSI-150-DG.





PHSI-150-DG Segment layers are labeled with cable OD's.

PACKAGE DESCRIPTION	CABLE DIAMETER OD RANGE INCH (mm)	NUMBER OF CABLES/ PIPES	CATALOG#
Split system cover with 1 opening including split adapter ring	1.417 – 2.756 (36 – 70 mm)	1	PHSI-150-DG-1
Split system cover with 1 opening including split adapter ring	2.756 – 4.409 (70 – 112 mm)	1	PHSI-150-DG-1L
Split system cover with 3 openings including split adapter ring and 3x blind plugs	0.945 – 2.126 (24 – 54 mm)	3	PHSI-150-DG-3
Split system cover with 6 openings including split adapter ring and 6x blind plugs	0.394 – 1.417 (10- 36 mm)	6	PHSI-150-DG-6

Included per system cover PHSI-150-DG: lubricant stick, cutter knife, cleaning cloth. Blind plugs are included with PHSI-150-DG-3 and the PHSI-150-DG-6 to seal openings that might not be used.

### PRODUCT EXAMPLES









PHSI-150-DG-1

PHSI-150-DG-1L

PHSI-150-DG-3

PHSI-150-DG-6



Matching accessories, such as pressure plate covers and installation toolkit, are found on the Accessories page.







Contact us for additional building entry solutions. polywater-haufftechnik.com

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### PHSI 150 DFK

WALL INSERTS FOR PREFABRICATED STRUCTURES OR BUILDING ENTRIES



Solves the Problem of Aging Core Drilled Infrastructure Holes



### • VERSATILE

Can be installed in container, modular structure, or powerhouse walls

### • INTEGRATES

Connection integration with the PHSI-150-DG mechanical seal system

### DURABLE DESIGN

Flange constructed of glass fiber reinforced polyamide and attachment hardware is made of stainless steel

### **RESILIANT**

High force absorption and resistant to sea water

### ACCOMMODATES

Core drill maximum diameter of 6.000" (150 mm)

### A Key Component to Securing Structural Entrances

An easy-to-use, bolt-on device for substation, container, powerhouse, or modular-power structure walls. PHSI-150-DFK offers an easier way to seal the entrance, whether conduit is present or not. It solves the problem of aging core drilled infrastructure holes by creating a secure sealing surface. When the DFK is placed on the outer wall, use a PHRD or PHRK to seal the opening inside the DFK.



	CATALOG#	PACKAGE DESCRIPTION
DFK comes with an integrated level.	PHSI-150-DFK	Glass fiber reinforced polyamide flange, attachment elements made of stainless steel V4A (AISI 316L) and sealing rings for concrete walls to protect against water ingress

The PHSI-150-DFK are compatible with the PHSI-150-DG series seals.



#### PRODUCT EXAMPLE









PHSI-150-DFK installation.

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### **PSEK**

PRESS SEAL ENTRY KIT



The Optimum Sealing Solution for Multiple Cables Entering Prefabricated Containers or Substation Trenches



### • INNOVATIVE DESIGN

Each module with double-row split-cable sealing system

### • VERSATILE

Modular system for sealing up to 24 cables

### DURABLE

Stainless steel V2A (AISI 304L) hardware

### • FUTURE READY

Integrated blind plugs for future pathways

### • STANDARDIZED

Applicable for frames 4.724" x 8.661" (120 x 220 mm) with sealing width 1.181" (30 mm)

### **Innovative Sealing Systems for Powerhouses and Modular Power Structures**

The press seal entry kit is designed for multiple cables that must be inserted into prefabricated containers or from substation trenches. The design of the double-row sealing system enables high cable occupation. All sealing elements are split, however there are no loose parts, so modules can't get lost. It's truly an engineered cable management system that's easy to install.



CATALOG#	PACKAGE DESCRIPTION	UNITS PER CASE
PSEK-KIT	Flange plate to screw on included seal 2 x module 1, 1 x module 2	1







### Module 1 8 cables with OD of 1.181 - 1.339 (30 - 34 mm)

Module 2 8 cables with OD of 0.472 - 0.630 (12 – 16 mm) or 0.787 - 0.945 (20 – 24 mm) or 1.181 - 1.339 (30 – 34 mm)

**Module Installation** 

The one-piece-design modules swing open to easily insert cables into the flanged frame. Cables OD's are fit to the individual seals by simply removing the blind plugs.

If OD or ID requirements fall outside the ranges listed, please contact us for additional solutions. polywater-haufftechnik.com

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### **PZVR**

**CEMENT-COATED WALL SLEEVE** 



A Simple and Effective Solution to Protect Entrances from Water Ingress

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- WATERTIGHT

  Bonds to poured concrete with proprietary cement coating
- CUSTOMIZABLE LENGTH
  When ordered or cut onsite
- SIMPLE INSTALLATION

  By securing endcap to formwork
- CLEAN AND DEBRIS-FREE Interior is protected with two PE endcaps
- **DURABLE**Will never rust or corrode

### **Integrates and Bonds with Poured Concrete**

Polywater | Hauff-Technik PZVR is a well-designed and effective solution to prevent water ingress through wall entrances. The lightweight UPVC design requires no special equipment to move and can be simply installed in wood or steel formwork. Its proprietary coating creates a homogeneous bond with poured concrete—no puddle flange or engineered ridges needed. This eliminates any space through which water can travel.





PE covers protect UPVC inside from debris.

CATALOG #	PRODUCTION DESCRIPTION	UNIT
PZVR - 2/xxx	2" (50 mm) diameter wall sleeve	Each
PZVR - 3/xxx	3" (80 mm) diameter wall sleeve	Each
PZVR - 4/xxx	4" (100 mm) diameter wall sleeve	Each
PZVR - 5/xxx	5" (125 mm) diameter wall sleeve	Each
PZVR - 6/xxx	6" (150 mm) diameter wall sleeve	Each
PZVR - 8/xxx	8" (200 mm) diameter wall sleeve	Each
PZVR - 10/xxx	10" (250 mm) diameter wall sleeve	Each
PZVR - 12/xxx	12" (300 mm) diameter wall sleeve	Each

XXX indicates length to be specified to the nearest inch (2.5 cm) increment

**Watertightness Testing:** Passed testing at 72 psi (5 bar) for 72 hours without water leakage. **Temperature Storage Range:** 40°F to 85°F (5°C to 30°C).



Close-up of special cement-bound coating.



Suitable for all wall thicknesses.

Learn more about this product and other sealant solutions from Polywater | Hauff-Technik at polywater-haufftechnik.com

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### **PGKD**

MODULAR SEAL WITH PATENTED VISUAL INSTALLATION INDICATOR



The Only Modular Seal on the Market that Visually Indicates Proper Installation



- VISUAL INSTALLATION INDICATOR Integrated, visual installation control—no torque wrench required
- NO RETIGHTENING REQUIRED Seal remains secure after installation
- GASTIGHT AND WATERTIGHT Up to 72 psi (5 bar)
- **NO LOOSE PARTS** Nuts molded into the pressure plates
- **DURABLE** All metal parts made of high-quality stainless steel V4A (AISI 316L)

### **Provides Security and Peace of Mind**

The PGKD patented installation control visually indicates when the seal is secure. Crews, engineers, and owners get the added peace of mind and security that the PGKD was installed properly. Gas, water, sewer, and electrical crews will appreciate having the nuts molded into the pressure plate, a design that greatly reduces the risk of lost parts. Available in EPDM or NBR rubber.



- Gal	
$\otimes$	



The visual indication provides confidence that the seal is secure.

MODULAR SEAL PGKD, EPDM (ALSO AVAILABLE IN NBR)						
ANNULAR SP	ACE INCH (MM)	CARRIER PIPE	OD INCH (MM)	INSTALLATION DEPTH INCH	CATALOG#	
From	То	From	То	(MM)	CAIALOG#	
0.5 inch (12.7mm)	0.629 (16.mm)	0.838 (21.3 mm)	12.75 (323.9 mm)	2.95 (75 mm)	PGKD-200-EPDMXX	
0.629 (16.0 mm)	0.787 (20.0 mm)	0.98 (25.0 mm)	3.54 (90.0 mm)	2.95 (75 mm)	PGKD-275-EPDMXX	
0.728 (18.5 mm)	0.906 (23 mm)	2.894 (73.5 mm)	9.843 (250 mm)	3.937 (100 mm)	PGKD-300-EPDMXX	
0.915 (23.25 mm)	1.024 (26 mm)	2.374 (60.3 mm)	12.402 (315 mm)	3.937 (100 mm)	PGKD-315-EPDMXX	
0.945 (24 mm)	1.181 (30 mm)	7.000 (177.8 mm)	27.992 (711 mm)	4.331 (110 mm)	PGKD-325-EPDMXX	
1.0 (25.5 mm)	1.33 (34.0 mm)	1.18 (30.0 mm)	12.75 (323.9 mm)	4.72 (120 mm)	PGKD-340-EPDMXX	
1.25 (32.0 mm)	1.653 (42.0 mm)	1.57 (40.0 mm)	16.0 (406.4 mm)	4.72 (120 mm)	PGKD-360-EPDMXX	
1.437 (36.5 mm)	11.693 (43 mm)	8.031 (204 mm)	48.031 (1220 mm)	5.906 (150 mm)	PGKD-400-EPDMXX	
1.456 (37.0 mm)	1.90 (48.5 mm)	2.37 (60.3 mm)	12.75 (323.9 mm)	5.51 (140 mm)	PGKD-410-EPDMXX	
1.142 (29 mm)	1.378 (36 mm)	8.031 (204 mm)	48.031 (1220 mm)	4.921 (125 mm)	PGKD-425-EPDMXX	
1.772 (45 mm)	2.047 (52 mm)	8.031 (204 mm)	48.031 (1220 mm)	5.906 (150 mm)	PGKD-440-EPDMXX	
1.626 (41.3 mm)	1.909 (48.5 mm)	4.500 (114.3 mm)	48.031 (1220 mm)	5.906 (150 mm)	PGKD-475-EPDMXX	
2.441 (62 mm)	2.815 (71.5 mm)	7.626 (193.7 mm)	48.031 (1220 mm)	6.496 (165 mm)	PGKD-500-EPDMXX	
2.283 (58 mm)	2.500 (63.5 mm)	7.626 (193.7 mm)	48.031 (1220 mm)	6.496 (165 mm)	PGKD-525-EPDMXX	
1.969 (50 mm)	2.283 (58 mm)	8.031 (204 mm)	48.031 (1220 mm)	6.496 (165 mm)	PGKD-575-EPDMXX	
3.543 (90 mm)	3.858 (100 mm)	12.752 (323.9 mm)	118.110 (3000 mm)	8.071 (205 mm)	PGKD-615-EPDMXX	
3.031(77 mm)	3.307 (84 mm)	9.626 (244.5 mm)	78.740 (2000 mm)	6.496 (165 mm)	PGKD-650-EPDMXX	

Y = NUMBER OF LINKS

Learn more about this product and other sealant solutions from Polywater | Hauff-Technik at polywater-haufftechnik.com

## **Polywater** PHSD SSG SL

MECHANICAL SEALS WITH SUPER SEGMENTED RING TECHNOLOGY



The Faster and Easier Installation Alternative to Modular Style Seals



### • ADJUSTABLE

Super segmented ring technology allows individual adjustments to the pipe/cable diameter on site

### MAINTAIN ACCURACY

Segments imprinted with exact diameter indication and predefined breaking point

### • SINGLE SOLUTION

Ideal for smaller pipes, larger cables, or multiple cable/pipe OD's covered with one seal

### **RELIABLE**

Completely gastight and watertight

### **OPTIONS**

Available in 1.575" (40 mm) width EPDM or NBR rubber

### **Save Time Without Sacrificing Security**

A faster, easier installation over modular style seals on the market. PHSD super segmented ring technology allows the fitting of numerous pipe or cable OD's with one seal in the field. It also provides the installer optical and tangible security through the integrated control opening. An excellent option to keep in inventory or on service trucks.





CORE-DRILL HOLE/ WALL SLEEVE ID RANGE INCH (MM)	NUMBER OF CABLES/ PIPES	CABLE OR PIPE DIAMETER OD RANGE INCH (MM)	CATALOG#
3.937 – 4.016 (100 mm)	1	0.709 - 2.559 (18 - 65 mm)	PHSD4-SSG-SL
5.906 - 5.985 (150 mm)	1	2.756 - 4.409 (70 - 112 mm)	PHSD6-SSG-SL
7.874 - 7.953 (200 mm)	1	4.331 - 6.378 (110 - 162 mm)	PHSD8-SSG-SL
*9.843 - 9.922 (250 mm)	1	.260 - 8.307 (159 - 211 mm)	PHSD10-SSG-SL
*11.811 - 11.890 (300 mm)	1	7.874 - 9.921 (200 - 252 mm)	PHSD12-SSG-SL

<sup>\*</sup> Blind cap available as an optional accessory. Other types in V4A (AISI 316L) and NBR on request.

#### PRODUCT EXAMPLES



If OD or ID requirements fall outside the ranges listed, please contact us for additional solutions. polywater-haufftechnik.com

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### **PHRD**

**CUSTOM MECHANICAL SEALS** 



A Custom Solution Mechanical Seal to Protect Your Unique Application



### • DURABLE

Materials resist corrosive environments and rodent infestation

### SOLID DESIGN O 107" (F. mm) stainle

0.197" (5 mm) stainless steel pressure plates

### • RELIABLE

Gastight and watertight performance guaranteed (10-year warranty). Water head pressure of 36 psi (2.5 bar)

### • EASY INSTALLATION

One-piece split design for new or installed cables/pipes

### **FLEXIBLE OPTIONS**

EDPM, NBR, Silicone, or KTW rubbers available

### **Meet Unique Sealing Needs**

Polywater | Hauff-Technik PHRD provides end users with custom solutions for their unique applications. Power cables, control cables, busbar and pipes can all be sealed. PHRD offers an optimal solution for sealing conduits to meet NEC and NESC codes. Mechanical seals are an excellent option in environments with post installation movement, vibration, high water pressure, or where negative pressure must be maintained.





PHRD have plugs in each opening, offering the flexibility to use one or all of the custom cable/pipe openings.

MAX CABLE/PIPE OD FOR CONFIGURATIONS						
Product Name	Inch Nominal Size	1 Opening	2 Openings	3 Openings	4 Openings	More Openings
PHRD-1.5*	1.5	0.591 in (15 mm)*	0.433 in (11 mm)*	0.394 in (10 mm)*	0.815 in (8 mm)*	Available
PHRD-2.0*	2.0	1.024 in (26 mm)*	0.630 in (16 mm)*	0.551 in (14 mm)*	0.472 in (12 mm)*	Available
PHRD-2.5*	2.5	1.417 in (36 mm)*	0.827 in (21 mm)*	0.748 in (19 mm)*	0.650 in (16.5 mm)*	Available
PHRD-3.0*	3.0	2.087 in (53 mm)*	1.142 in (29 mm)*	1.063 in (27 mm)*	0.709 in (18 mm)*	Available
PHRD-3.5*	3.5	2.520 in (64 mm)*	1.378 in (35 mm)*	1.260 in (32 mm)*	0.984 in (25 mm)*	Available
PHRD-4.0	4.0	2.992 in (76 mm)	1.614 in (41 mm)	2.24 in (37 mm)	1.260 in (32 mm)	Available
PHRD-5.0	5.0	3.976 in (101 mm)	2.087 in xsx (53 mm)	1.929 in (49 mm)	1.693 in (43 mm)	Available
PHRD-6.0	6.0	4.921 in (125 mm)	2.598 in (66 mm)	2.362 in (60 mm)	2.087 in (53 mm)	Available
PHRD-8.0	8.0	6.732 in (171 mm)	3.583 in (91 mm)	3.307 in (84 mm)	2.913 in (74 mm)	Available
PHRD-10.0	10.0	8.425 in (214 mm)	4.567 in (116 mm)	4.213 in (107 mm)	3.740 in (95 mm)	Available
ANY SIZE		Mechanic	al seals can be i conduit	manufactured i //hole ID	for any size	Available



IMPORTANT note: NEC — Suitable for use in the following Hazardous Locations: Class I, Division 2 per NEC 501.10(B)(4 \*Asterisk indicates seals tested and certified by UL. All seals were manufactured with EPDM.





Learn more about this product and other sealant solutions from Polywater | Hauff-Technik, visit: polywater-haufftechnik.com

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### **PHRD SG**

**MECHANICAL SEALS WITH SEGMENTED RING TECHNOLOGY** 



The Most Diverse Mechanical Seal



- IN-FIELD CUSTOMIZATION

  Easily adjust and respond to cable diameters on site
- ADAPTABLE
   Split seal for retrofit or in-place cable installation
- RELIABLE
   Gastight and watertight performance—water head pressure of 36 psi (2.5 bar)
- DURABLE

  Materials resist corrosive
  environments and rodent infestation
- SOLID DESIGN0.197" (5 mm) stainless-steel press plate and EPDM rubber

### **Adapt and Adjust in the Field**

The PHRD SG provides an adaptable stock solution that can be adjusted in field to fit varying cable ODs. Fit a range of openings and seal various sizes and numbers of cables, conduits, pipes (gas & water), or multiple services with one seal. The flexibility of the PHRD-SGi allows the OD to be modified in field to fit schedule 80 and 40 PVC conduit.



<b>3</b>	CORE-DRILL HOLE/ WALL SLEEVE ID RANGE INCH (MM)	NUMBER OF CABLES	CABLE DIAMETER OD RANGE INCH (MM)	CATALOG #
		8	0.157 - 0.650 (4 - 16.5 mm)	PHRD4-SG-8
3	4" Nominal	5		
		of which 2	0.315 – 1.181 (8 – 30 mm)	PHRD4-SG-5
PHRD4-SG-5		of which 3	0.157 - 0.650 (4 - 16.5 mm)	
	5″ Nominal	3	0.394 - 1.575 (10 - 40 mm)	PHRD5-SG-3
		6	0.236 - 1.220 (6 - 31 mm)	PHRD5-SG-6
		10	0.157 - 0.650 (4 - 16.5 mm)	PHRD5-SG-10
	4" Nominal and 4" Schedule 80	4	0.315 - 1.102 (8 – 28 mm)	PHRD4-SGi-4*
Segmented ring technology allows you to adapt and adjust	5" Nominal and 5" Schedule 80	4	0.591 - 1.102 (15 – 28 mm)	PHRD5-SGi-4*



IMPORTANT note: NEC — Suitable for use in the following Hazardous Locations: Class I, Division 2 per NEC 501.10(B)(4 \*PHRD4-SGi-4 and PHRD5-SGi-4 have been tested and certified by UL.

### PRODUCT EXAMPLES

the seal to fit your cable ODs.





PHRD5-SG-10





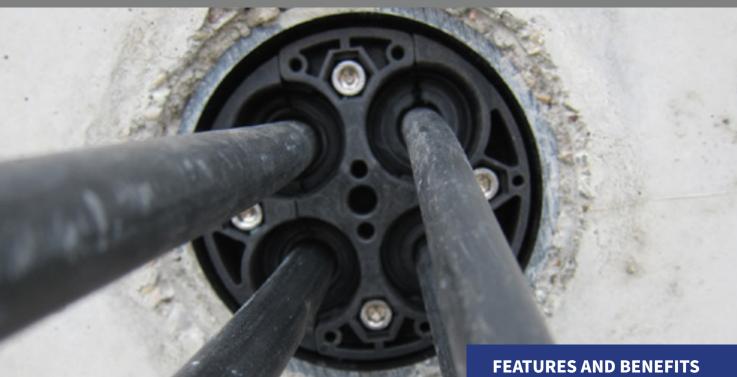
4 \*PHRD5-SGi-

If OD or ID requirements fall outside the ranges listed, please contact us for additional solutions. polywater-haufftechnik.com



### **PHRK SSG**

MECHANICAL SEALS WITH SUPER SEGMENTED RING TECHNOLOGY



The Only Lightweight One-Piece Seal with Super Segmented Ring Openings



• ADJUSTABLE
Individual adjustment to the

installed cable diameters on site

- MAINTAIN ACCURACY
   Segments with exact diameter marking
- ADAPTABLE Split seal for retrofit installation
- DURABLE DESIGN
   Pressure plates made of glass
   fiber reinforced polyamide
- SMART DESIGN
   Form-fitting connections of the press plates

### Adjustable and Adaptable in the Field

The only one-piece mechanical seal with super segmented ring technology that adjusts to fit various electrical or telecommunication cables in the field. Seals core-drilled holes, sleeves, PVC, and rigid-steel conduits. Integrates with the PHSI options. Select the model that meets the sealing needs for your project and keep it in inventory.



CORE-DRILL HOLE/ WALL SLEEVE ID	NUMBER OF	CABLE DIAMETER OD	
RANGE INCH (MM)	CABLES	RANGE INCH (MM)	CATALOG #
3.937 – 4.016	1	0.709 – 2.559 (18 – 65 mm)	PHRK4-SSG-1
(100 mm)	4	0.315 – 1.181 (8 – 30 mm)	PHRK4-SSG-4
	1	1.417 – 2.756 (36 – 70 mm)	PHRK6-SSG-1*
5.906 – 5.985 (150 mm)	1	2.756 - 4.409 (70 - 112 mm)	PHRK6-SSG-1L*
	3	0.945 - 2.126 (24 - 54 mm)	PHRK6-SSG-3
	6	0.394 - 1.417 (10 - 36 mm)	PHRK6-SSG-6
7.874 – 7.953	1	4.331 – 6.378 (110 – 162 mm)	PHRK8-SSG-1*
(200 mm)	3	1.575 – 2.835 (40 – 72 mm)	PHRK8-SSG-3
	(100 mm) 5.906 – 5.985 (150 mm) 7.874 – 7.953	3.937 – 4.016 (100 mm) 4  1  5.906 – 5.985 (150 mm) 3  6  7.874 – 7.953 (200 mm)	3.937 - 4.016 (100 mm)  4  0.315 - 1.181 (8 - 30 mm)  1  1.417 - 2.756 (36 - 70 mm)  1  2.756 - 4.409 (70 - 112 mm)  3  0.945 - 2.126 (24 - 54 mm)  6  0.394 - 1.417 (10 - 36 mm)  7.874 - 7.953 (200 mm)  1  (18 - 65 mm)  4  0.315 - 1.181 (8 - 30 mm)  1  4.417 - 2.756 (36 - 70 mm)  1  4.756 - 4.409 (70 - 112 mm)  1  4.331 - 6.378 (110 - 162 mm)  1  1.575 - 2.835

Segments with exact diameter marking.

\*Without blind plugs

#### PRODUCT EXAMPLES



PHRK4-SSG-1



PHRK8-SSG-3





PHRK4-SSG-4

PHRK6-SSG-6

If OD or ID requirements fall outside the ranges listed, please contact us for additional solutions. polywater-haufftechnik.com



### Accessories

TOOLS, SYSTEM COVERS, AND MORE

### **GENERAL ACCESSORIES**



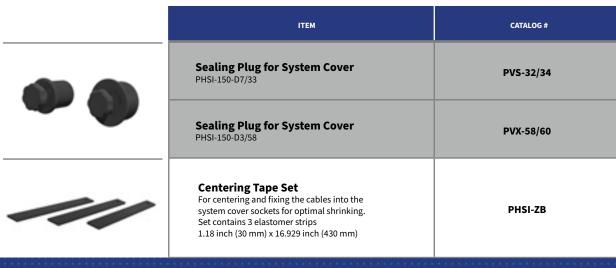
ITEM	CATALOG #
Flexible Pin Spanner	PSLS-6G
Flexible Pin Spanner (buildings with perimeter insulation up to 3.937 inch (100 mm)	PSLS-6GD
Polywater° Type HP™ Cleaner in a one-quart bottle/0.95 liter	HP-35LF

### WALL INSERTS AND PLASTIC FLANGE



ITEM	CATALOG #
Spacer Set (2x) To enlarge the axial spacing of the wall inserts to 9.842 inch/250 mm. Enables block assembly of PHSI 150 Varia.	PHSI-AH-40

### **SYSTEM COVERS WITH SHRINK-FIT SLEEVE**





### **Complete Installations with Confidence**

Accessories are designed to integrate with the seal products to create an engineered system that seals pipes, conduits, and cables, helping to keep out water, gases, and rodents. The accessories allow the proper installation of Polywater | Hauff-Technik products, providing confidence that the right tools were used.



### **SPLIT SYSTEM COVER**

	ITEM	CATALOG#
WURTH THE	Toolset for installation includes: 1 torque wrench 4-20 Nm, ¼-inch 1 adapter for cordless screwdriver square end, ¼ inch 2 extensions, 150 mm, ¼ inch 1 extension, 100 mm, ¼ inch 1 wrench socket M6, SW 5, ¼ inch 1 wrench socket M6, 100 mm with ball head, ¼ inch 1 hexagon spanner M8, 50 mm with ball head, ¼ inch	PHSI-TOOLSET
M. M	Press Plate Cover For PHSI-150-DG-3 for protecting the threads against dirt	PHSI-COVER-3
	Press Plate Cover For PHSI-150-DG-6 for protecting the threads against dirt	PHSI-COVER-6

### SYSTEM COVER—SEGMENTO

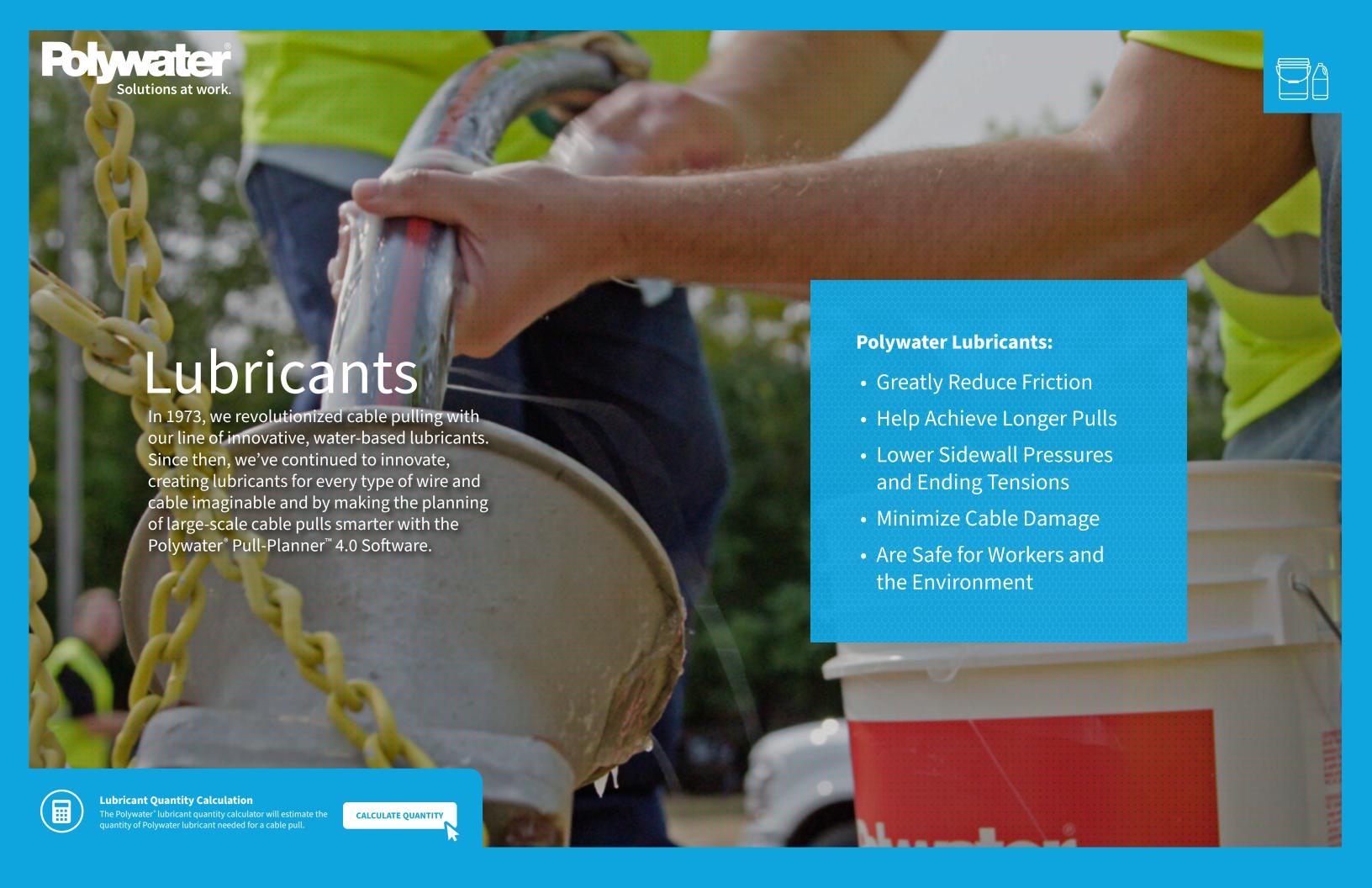


Learn more about these products and other sealant solutions from Polywater | Hauff-Technik at polywater-haufftechnik.com

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### LZ Lubricant

### **UNIVERSAL CABLE PULLING LUBRICANT**



Provides High-Performing Friction Reduction and Combustion Resistance While Working with All Cable Jacket Materials



### • UNIVERSALLY COMPATIBLE

Suitable on all cable jackets and specifically designed for LSZH/LSHF, CPE, CSPE, fire-rated, and plenum cable jackets

### • LOW FRICTION COEFFICIENT

Low tensions reduce risk of cable damage to ensure long-term integrity of cable networks

### • SPECIFICATION GRADE

Meets performance requirements for power and industrial plants, mass-transit systems, highoccupancy buildings, airports and data centers

### **EASY TO APPLY**

Can be hand applied, pumped or deployed by a Front End Pack™

### A Lubricant for all Cable Materials and Applications

In addition to inherently low coefficient of friction, Polywater® LZ is the only pulling lubricant developed, tested, and specified for installations of LSZH/LSHF cable in conduits where fire propagation is a concern. Designed to meet the requirements of critical power infrastructure and public transportation, such as mass transit systems and airports.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
LZ-35/WLZ-35	1 qt (0.95 L) Bottle	12
LZ-55/WLZ-55	½ gal (1.9 L) Front End Pack in a Carton	6
LZ-110/WLZ-110	½ gal (1.9 L) Front End Pack in a Pail	10
LZ-128/WLZ-128	1 gal (3.8 L) Pail	4
LZ-640/WLZ-640	5 gal (18.9 L) Pail	1
LZ-DRUM/WLZ-DRUM	55 gal (208 L) Drum	1



W in the catalog number indicates Winter Grade version.

Polywater LZ can also be applied by hand.

### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing. Does not stress crack polyethylene.
   UL Listed to US and Canadian safety standards.
- **Friction Testing:** Offers low coefficient of friction on a wide range of cable jacket and duct materials for superior friction reduction.
- Physical Properties: Dries slippery. Contains no waxes or grease. Will not cement cables to conduit.
- Applications: Long installations with many bends where superior friction reduction is critical; data and communications centers or high-occupancy areas where LSZH cables and other fire-critical materials are used.
- Temperature Use Range: Polywater LZ: 20°F to 120°F (-5°C to 50°C).
   Winter Grade Polywater WLZ: -20°F to 120°F (-30°C to 50°C).

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### **J Lubricant**

### WATER-BASED GEL PULLING LUBRICANT



PERFORMANCE CABLE

QUART (.95 LTR) BOTTLE

A Proven, High-Performance Cable Lubricant for Heavy Cable Installations

- SUPERIOR FRICTION REDUCTION
  For low cable pulling tensions
- HIGH CLING FACTOR
   Remains on cable jacket
   throughout the installation
- FIELD-FRIENDLY APPLICATION
   Can be pumped with the LP-D5 drill-powered lubricant pump, hand applied, or deployed with Front End Packs™
- CLEAN AND NON-STAINING
   Minimize clean-up time, especially in finished indoor use
- UL/ULC CERTIFICATION
   UL Listed to US and Canadian safety standards

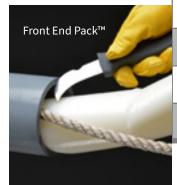
### The Most Used Lubricant for Over 30 Years

A vast amount of underground electrical and communications cable has been pulled over the past three decades using Polywater® J Lubricant. The high-performing, slow-drying, and clean nature of this water-based gel lubricant provides maximum tension reduction in all types of cable pulling, especially in hot environments. It is a proven and popular choice for long and multiple-bend cable pulls.









CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
J-35 / WJ-35	1 qt (0.95 L) Bottle	12
J-27 / WJ-27	1 qt (0.95 L) Front End Pack™ in a Carton	12
J-99 / WJ-99	1 qt (0.95 L) Front End Pack in a Pail	16
J-55 / WJ-55	½ gal (1.9 L) Front End Pack in a Carton	6
J-110 / WJ-110	½ gal (1.9 L) Front End Pack in a Pail	10
J-128 / WJ-128	1 gal (3.8 L) Pail	4
J-640 / WJ-640	5 gal (18.9 L) Pail	1
J-DRUM / WJ-DRUM	55 gal (208 L) Drum	1

W in the catalog number indicates Winter Grade version



Polywater J can also be applied by hand.

### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing;
   Generic Requirements for Optical Cable Innerduct, Associated Conduit, and Accessories.
- Friction Testing: Polywater J shows superior friction reduction on a variety of jacket types.
- Physical Properties: Contains no wax, grease, or silicone. Has no flash point and dried residue will not support combustion. Will not cement cable into conduits.
- Applications: Long installations with multiple bends where superior friction reduction is critical; underground
  utilities, data centers, wastewater treatment plants and mass transit systems.\*
- Temperature Use Range: Regular Polywater J: 20°F to 120°F (-5°C to 50°C).
   Winter Grade Polywater WJ: -20°F to 120°F (-30°C to 50°C).

\* Polywater® J is not recommended for LSZH/LSHF and certain CSPE and CPE cable jackets. For these jacket types, Polywater LZ is the recommended/approved product.

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## Polywater **PJ Lubricant**

### POURABLE COMPLEX-POLYMER PULLING LUBRICANT



**MIGH PERFORMANCE CABLE LUBRICANT** 

A Pourable, High-Performance Cable Pulling Lubricant for Electrical Projects

• LESS MESS

Use the LP-D5 drill-powered lubricant pump or pour directly into the conduit

• FIELD-FRIENDLY APPLICATION

**Ensures proper lubrication** during longer pulls

HIGH CLING FACTOR

Remains on cable jacket throughout the installation

**MAXIMUM FRICTION REDUCTION** 

Lower cable pulling tensions

**COLD WEATHER FORMULA** 

Lubricant can be used for year-round cable installations

### **Easy to Pour or Pump**

Polywater® PJ Lubricant offers the same high-performance factors as heavy-duty Polywater® J. It delivers high lubricity and lower cable tensions but is a better option for installations where pouring or pumping methods are a more efficient means of lubricant application.





	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
ì	PJ-128 / WPJ-128	1 gal (3.8 L) Jug	4
ł	PJ-320 / WPJ-320	2½ gal (9.6 L) Jug	2
J	PJ-640 / WPJ-640	5 gal (18.9 L) Pail	1
1	PJ-DRUM / WPJ-DRUM	55 gal (208 L) Drum	1

W in the catalog number indicates Winter Grade version



Polywater PJ Lubricant can be used with the Polywater® LP-D5 drill-powered pump.

### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing; Generic Requirements for Optical Cable Innerduct, Associated Conduit, and Accessories.
- Friction Testing: Polywater PJ shows superior friction reduction on a variety of jacket types.
- Physical Properties: Dries slippery. Contains no wax, grease, or silicone. Has no flash point and dried residue will not support combustion. Will not cement cable into conduits.
- **Temperature Use Range:** Regular Polywater PJ: 20°F to 120°F (-5°C to 50°C). Winter Grade Polywater WPJ: -20°F to 120°F (-30°C to 50°C).

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<sup>\*</sup> Polywater® PJ is not recommended for LSZH/LSHF and certain CSPE and CPE cable jackets. For these jacket types, Polywater LZ is the recommended/approved product.

### + Silicone<sup>™</sup> Lubricant

### SILICONE-ENHANCED CABLE PULLING LUBRICANT



The Premier Lubricant for Heavy, and Complex Pulls





 COMPLEX PULLS Preferred lubricant for URD and underground transmission installations

### • WATER RESISTANT

Reduces tension even when pulling through water and does not wash off

### HIGH CLING FACTOR

Evenly coats and stays on cable jacket during application

### **VERY LOW FRICTION**

Consistently low friction and tension when pulling through **HDPE** and **PVC** conduits

### **NON-FREEZING FORMULA**

Polywater +Silicone Type WNN can be used for cold weather pulling

### **The Longest Cable Pulls Made Simple**

Polywater® + Silicone™ Type NN Lubricant provides superior friction reduction for the most difficult and longest pulls. The #1 choice for underground transmission cable pulls, especially for critical installations and pulls in wet environments. It is slow drying and leaves a thin, slippery film that retains its lubrication for months after installation.



UNITS/CASE

2

1



W in the catalog number indicates Winter Grade version



Consider using the Polywater LP-D5 drill-powered pump to make application easier for longdistance cable installations.

### SPECIFICATIONS AND APPLICATIONS

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing and meets Telcordia GR-356-CORE; Generic Requirements for Optical Cable Innerduct, Associated Conduit, and Accessories.
- Friction Testing: Polywater NN shows superior friction reduction on a variety of jacket types.
- Physical Properties: Polywater + Silicone evenly coats cable jacket surfaces and keeps its low friction coefficient even after contact with water in ducts.
- Temperature Use Range: Regular Polywater NN: 20°F to 120°F (-5°C to 50°C). Winter Grade Polywater WNN: -20°F to 120°F (-30°C to 50°C).

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## Dyna-Blue®

THICK WATER-BASED GEL LUBRICANT



The Best Cable Lubricant Choice for Manual Application



### NON-STAINING

Will not stain clothing, carpet, or sheetrock

### • HIGH CLING FACTOR

Stays on wires during vertical application

### • TEMPERATURE STABLE

Not ruined by freeze/thaw exposure

### • WIPES CLEAN AND DRY

Wire markers stick to cable jackets

### • UL/ULC LISTED

UL Listed to US and Canadian safety standards

### **Thick Enough to Stay in Place**

Polywater® Dyna-Blue® thick, gel cable lubricant is clean, dries slippery, and will not separate out during freeze thaw cycles. It has a high cling factor for easy handling and application. It is compatible with common electrical cables. A good choice for everyday use when installing building wire, such as THHN, XHHW, and fire alarm cables.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
D-35	1 qt (0.95 L) Bottle	12
D-128	1 gal (3.8 L) Pail	4
D-640	5 gal (18.9 L) Pail	1
D-DRUM	55 gal (208 L) Drum	1



EMT, GRS, or IMC applications.

### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing on a wide variety of cable materials. It does not stress crack polyethylene. UL and ULC listed.
- Physical Properties: Dries slippery. Unlike wax lubes, it leaves little residue and will not cement cables to conduit. Contains no wax, grease, or silicone.
- Temperature Use Range: 20°F to 120°F (-5°C to 50°C).
- **Temperature Stability:** No phase-out after five freeze/thaw cycles or 5-day exposure at 120°F (50°C).

# **Polywater**CLR Lubricant

### TRANSPARENT WATER-BASED GEL LUBRICANT



A Clear and Clean, Easyto-Apply Cable Pulling Lubricant for Daily Use



### CLEAN

Clear formula wipes off easily, allowing wire markers to stick

### NON-STAINING

Will not stain clothing, carpet, or sheetrock

### • CLINGS TO CABLE

Easy to apply by hand or squeeze onto the cable

#### SAFE

Non-toxic and biodegradable water-based lubricant

### UL/ULC LISTED

UL Listed to US and Canadian safety standards

### **Suitable for All Types of Cable Installations**

Polywater® CLR is a clear, slow-drying, thick gel lubricant that was developed for easy handling and application on all types of wire and cable installations. From electrical service work to data applications, it provides a clean and easy way to finish projects.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
CLR-35	1 qt (0.95 L) Bottle	12
CLR-128	1 gal (3.8 L) Pail	4
CLR-640	5 gal (18.9 L) Pail	1

Non-staining lubricant.

### **SPECIFICATIONS AND APPLICATIONS**

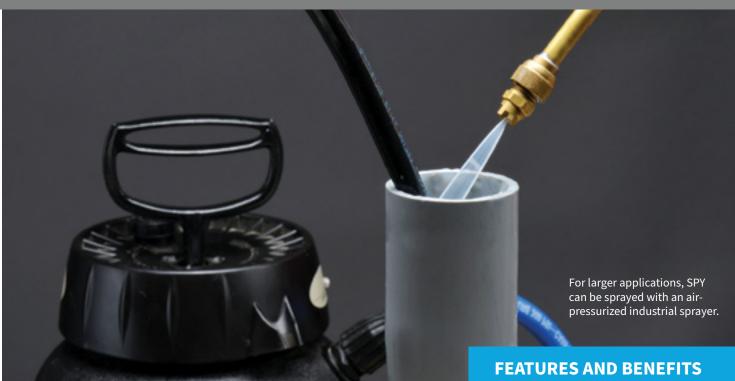
- Cable Compatibility: Passes IEEE 1210 physical and electrical testing on a wide variety of cable materials. It does not stress crack polyethylene.
- Application: Clings to cable and will not cold flow.
- Properties: Dries slippery. Unlike wax lubes, it leaves little residue and will not cement cables to conduit.
   Contains no wax, grease, or silicone and thus will not propagate a flame.
- Temperature Use Range: 20°F to 120°F (-5°C to 50°C).
- Temperature Stability: No phase-out after five freeze/thaw cycles or 5-day exposure at 120°F (50°C).

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# Pohywater

### THIN FILM POLYMER LUBRICANT



Sprayable Liquid Lubricant for Pulling or Pushing Cable



### **Application Made Easier**

Polywater® SPY™ Lubricant can be sprayed directly onto the cables as they enter the duct or wiped on the cable in a thin film. Its unique chemistry applies thin as it is sprayed or wiped, but once on the cable or conduit surface, thickens to stay coated. Use for a quick and easy application with zero mess. Excellent for underground cable installations where automated or spray application is preferred.





	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	SPY-D20	20-Count Dispenser of 5" x 8" (13 cm x 20 cm) Premoistened Wipes	12
	SPY-35LR/ WSPY-35LR	1 qt (0.95 L) Spray Bottle	12
	SPY-128	1 gal (3.8 L) Jug	4
	SPY-640/ WSPY-640	5 gal (18.9 L) Pail	1

W in the catalog number indicates Winter Grade version.



### SPECIFICATIONS AND APPLICATIONS

- Cable Compatibility: Passes IEEE 1210 physical and electrical testing on a wide variety of cable materials. It does not stress crack polyethylene. Refer to the technical bulletin for details.
- Formula: Contains no waxes or greases.
- Temperature Use Range: Polywater SPY: 20°F to 120°F (-5°C to 50°C). Polywater WSPY (Winter Grade version): -20°F to 120°F (-30°C to 50°C).

Reduces friction on all types of cable,

including pre-lubricated versions

• THIN FILM TECHNOLOGY

ZERO MESS

• EASY TO APPLY

**UL/ULC LISTED** 

safety standards

Formulated to cling and coat cables and wires during long pulls

Dries quickly and leaves zero mess at the receiving end of the pull, unlike traditional wax and gel pulling lubricants

Can be sprayed from pressurized sprayer or hand-trigger sprayer

UL Listed to US and Canadian

LP-D5

### DRILL-POWERED LUBRICANT PUMP



A Clean, Efficient Way to Pump Polywater Cable Pulling Lubricant from Pails and Drums



### **FEATURES AND BENEFITS**

### • CLEAN

Eliminates hand scooping, hand pouring and lengthy cleanups

### • EFFICIENT

Provides labor savings and consistent lubrication with less effort when installing cable

### • VERSATILE

Lubricants can be pumped into vertical or horizontal conduits

### ADJUSTABLE

Works with a variable-speed drill to pump at appropriate rate based on cable size and pulling speed

### **CORROSION RESISTANT**

Solid brass body with stainless steel shaft, which is unaffected by waterbased lubricants

### **Makes Cable Lubrication Clean and Efficient**

Polywater® LP-D5 Lubricant Pump is a drill-operated, self-priming gear pump. It pumps all varieties of Polywater lubricants directly into conduit or onto cable at optimal rates for different cable sizes and pulling speeds.



CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
LP-D5	Drill-powered Lubricant Pump*  The package contains the pump, 10-foot (4.7 m) discharge hose, an additional extension tube for 55-gallon (208 l) drums, and the two lubricant applicators.  *Drill not included	1



### **SPECIFICATIONS AND APPLICATIONS**

- Operation: Designed for 5-gallon (18.9 L) pails with extension for 55-gallon (208 L) drums. Easy to clean with water.
- Power Source: Uses ½-inch, variable-speed drill. Can be modified for alternative power source.
- Pumping Rate: Dispenses up to 6 quarts of lubricant per minute (up to 6 liters per minute).
- Lightweight: Weighs less than 7 lbs (3 Kg) for easy transfer and portability.



### CableFree® Loosener

### **CABLE REMOVAL AID**



Safe and Effective Conduit Reclamation



### • DISSOLVES

Softens a wide variety of binding materials

### • LOOSENS

Releases cables stuck in conduits

### • LUBRICATES

Eases the removal of cables

### • SAVES

Minimizes damage and conduit reclamation costs

### • EFFECTIVE

Creates space in conduit/duct for new cable placement

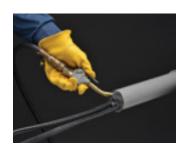
### **Reclaim Ducts**

Recover conduits with Polywater® CableFree® Loosener. Dissolves wax-based lubricant, rust, soap, mud, and other adhesive residues to make removal of wires and cables in ducts easy and effective. Reduce project costs by regaining space in existing conduits for the installation of new cables.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
CF-35	1 qt (0.95 L) Bottle	12
CF-128	1 gal (3.8 L) Jug	4
CF-640	5 gal (18.9 L) Pail	1



Polywater CableFree can also be dispersed with compressed air.

### **SPECIFICATIONS AND APPLICATIONS**

- Dissolve Old-Style Lubricants: Soften old-style wax or petroleum-based lubricants hardened over time.
- Compatibility: Meets NEC Codes for Removal of Abandoned Cable: Articles 800.2, 800.52(1), & 770.2.

### • Quantity Calculation Made Simple

As a rule of thumb, one quart of CableFree Loosener should be used for every 50 feet of 1" conduit (1 liter per 15 m of 2.5-cm conduit). For larger conduits, the following equation provides a starting estimate of the amount of loosener for a particular cable removal.

 $Q = .02 \times L \times D$ 

Metric Formula: Q = .024 x L x D

Q = quantity required in quarts (liters for metric)

L = length of the conduit in feet (meters for metric)

D = diameter of the conduit in inches (centimeters for metric)

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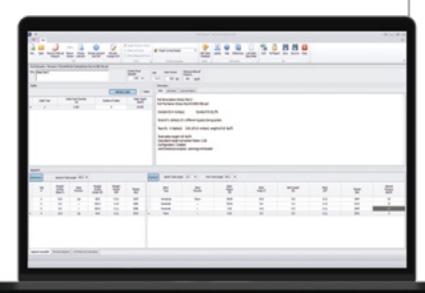
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### Pull-Planner™

CABLE PULLING, TENSION CALCULATION, AND CONDUIT SYSTEM DESIGN SOFTWARE



Makes the Planning of Complex, Large-Scale Cable Pulling Designs Easier and More Efficient



#### VERSATILE

Supports most common electrical and communication cable and conduit types

#### • **CUSTOMIZED DATABASE**

Unlimited number of cables can be logged in the easy-to-use database

#### MINIMIZE RISK

Provides coefficient of friction (COF) guidance to reduce risks during cable pulls

#### FLEXIBL

Allows for push/pull, variable friction, roller use, and pull reversal

#### ACCURATE

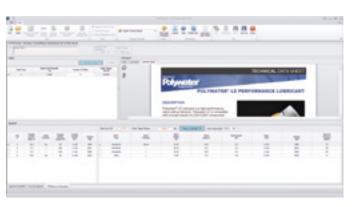
Use actual field tensions to back calculate the field COF

#### **Confidently and Accurately Achieve Longer Pulls**

Polywater® Pull-Planner™ 4.0 for Windows® utilizes industry standards to calculate cable pulling tension, sidewall pressure around bends, optimal pull direction, and cable jamming probabilities. The application helps save time and money by verifying calculations; minimizing splices, vaults, and pulling set-ups; thus reducing the chance of cable damage. An excellent resource for cable system specification and planning conduit systems prior to the pull.



1111	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
THE REAL PROPERTY OF THE PROPE	PP-40	Internet Download	1





#### **SPECIFICATIONS AND APPLICATIONS**

- Available in four languages: English, Spanish, German, and French.
- Runs metric or English units.
- Accessible as an internet download only.
- Operates on standard Windows® and allows for exporting data to Excel for printing, saving, and documenting.
- Polywater Pull-Planner 4.0 accepts pull and cable data saved under previous Pull-Planner software versions.

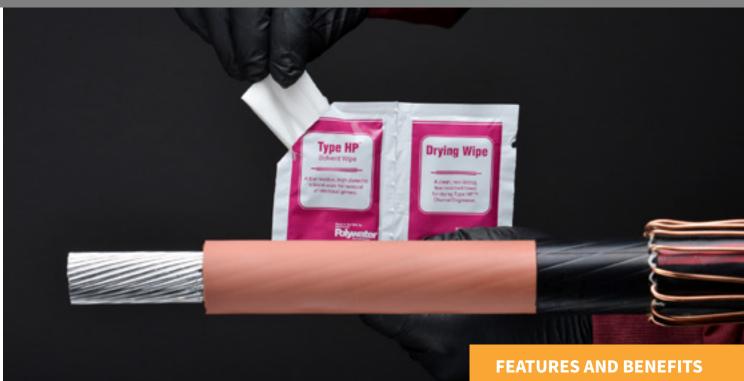
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## SpliceMaster® HP™

#### **MULTIPURPOSE SOLVENT CLEANER**



The Most Versatile Cleaner for Electrical Construction and Maintenance Needs



#### • MULTIPURPOSE

From plant shutdowns to substation builds, HP is the only cleaner needed for electrical applications

#### HIGH SOLVENCY

Excellent for cable splice preparation and electrical equipment cleaning

#### • NO RESIDUE

Evaporates completely, leaving no tracking residue

#### • SAFE EXPOSURE

Contains no carcinogens and replaces chlorinated electrical cleaners

#### NONCONDUCTIVE

Will not short across typical electrical voltages

#### The Industry's Preferred Electrical Cleaner

Polywater® SpliceMaster® HP™ is a versatile and popular electrical cleaner for cable splice preparation, cable termination, and electrical apparatus maintenance. It fits the needs of electrical utilities, line contractors, and medium voltage crews needing to comply with regulatory and safety requirements. Polywater SpliceMaster HP is available in a wide range of bulk and kit packaging options to meet various field uses.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	HP-1	Saturated 8" x 12" (20 cm x 30 cm) Wipe	144
	HP-P158ID	Tandem Pack™ Wet/Dry 5" x 8" (13 cm x 20 cm) Wipe	144
	HP-3PS	PEL-PAC® Kit* Contains: 3 – HP-P158ID Wet/Dry Wipes; 1 – Strip 120 Grit Nonconductive Sanding Cloth	10
	HP-P63	PEL-PAC Kit* Contains: 6 – HP-P158ID Wet/Dry Wipes; 3 – Strips 120 Grit Nonconductive Sanding Cloth; 1 – Instruction Card	12
	HP-T369	PEL-PAC Kit* Contains: 3 – Saturated 6" x 9" (15 cm x 23 cm) Wipes in a Tin	24
	HP-T369/S	Same as Kit Above; with Sanding Cloth	24
	HP-T369/S-D	Same as Kit Above; Includes Dry Towel	24
	HP-D72	72-Count Dispenser of 10" x 12" (25 cm x 30 cm) Wipes	6
	HPY-12	16 oz (475 ml) Aerosol Can	12
	HP-16LF	1 pt (475 ml) Bottle with Flip Top	12
144	HP-35LF	1 qt (0.95 L) Bottle with Flip Top	12
	HP-128	1 gal (3.8 L) Jug	4
	HP-640	5 gal (18.9 L) Can	1
	HP-DRUM	55 gal (208 L) Drum	1

\*The PEL-PAC System promotes proper cleaning techniques and limits the use of excess solvent. Pre-saturated wipes contain a carefully measured quantity of solvent and are an excellent way to control vapor. Using a measured solvent quantity on each wipe allows users to maintain vapor levels below occupational exposure limits (OELs). Additionally, this design eliminates spill and ingestion hazards.

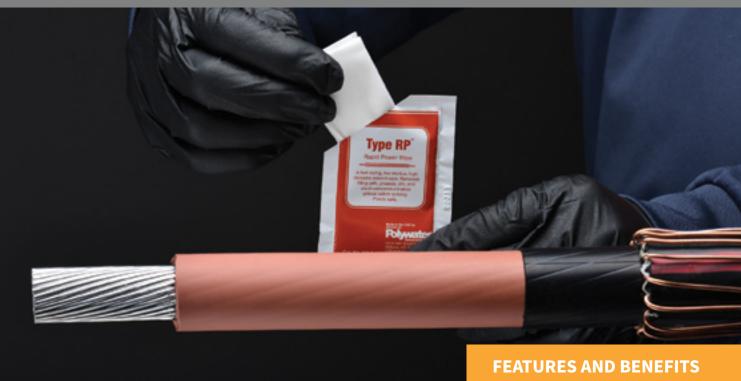


#### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Meets the standard electrical utility test requirements based on IEEE 1493 cable cleaning standard.
- **Dielectric Strength:** >40kV at a 100-mil gap per ASTM D877 standard test method.
- Flash Point: >140°F (>60°C) per ASTM D93 standard test method.
- Residue: <100 ppm per ASTM D2369 standard test method. Leaves no residue.

## SpliceMaster® RP™

#### **FAST-EVAPORATING CABLE CLEANER**



A Fast, Safe and Efficient Medium-Voltage and High-Voltage (MV/HV) Cable Preparation and Cleaner



#### • FAST ACTING

Evaporates quickly and leaves no residue

#### PROVEN

Approved by medium voltage cable manufacturers

#### • SAFE

Excellent alternative to volatile halogenated solvents

#### TESTED

High dielectric strength of 56kV meets IEEE 1493

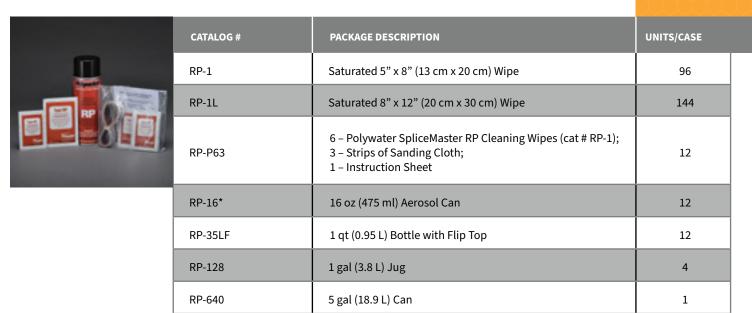
#### CONVENIENT

Practical packaging for fast, easy electrical cleaning

#### **Proven and Effective Cable Cleaner**

Polywater® SpliceMaster® RP™ cable cleaner evaporates quickly and is noncarcinogenic, making it safe for workers and the environment. The lint-free PEL-PAC® single wipes limit solvent vapor exposure and waste. RP easily fits into tool bags and splicer kits. Polywater SpliceMaster RP is available in a wide range of bulk and kit packaging options to meet various usage needs.





<sup>\*</sup>Best suited for cleaning busbar, transformer oils, switchgear, meters, and electric motors. It also satisfies numerous other degreasing needs.

The PEL-PAC System promotes proper cleaning techniques and limits the use of excess solvent. Pre-saturated wipes contain a carefully measured quantity of solvent and are an excellent way to control vapor. Using a measured solvent quantity on each wipe allows users to maintain solvent vapor levels below occupational exposure limits (OELs). Additionally, this design eliminates spill and ingestion hazards.

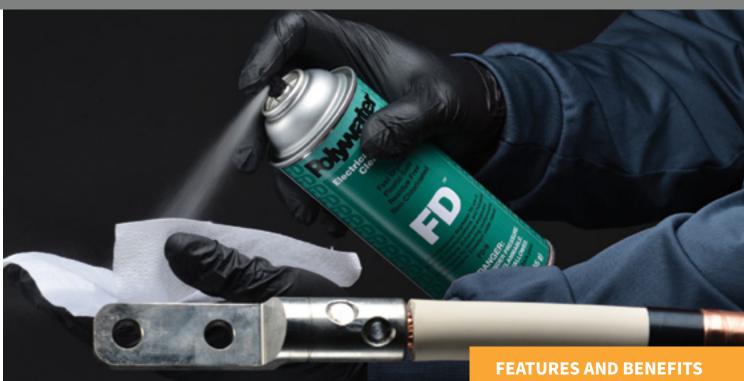


#### **SPECIFICATIONS AND APPLICATIONS**

- Cable Compatibility: Meets the standard electrical utility test requirements based on IEEE 1493 cable cleaning standard.
- Dielectric Strength: >56kV at a 100-mil gap per ASTM D877 standard test method.
- Flash Point: 20°F (-7°C) per ASTM D93 standard test method.
- Residue: <100 ppm per ASTM D2369 standard test method. Leaves no residue.

# **Polywater**Type FD™

#### **GENERAL ELECTRICAL AND CONTACT CLEANER**



fulti-purpose degreaser for in industrial applications

A Fast-Drying, Multipurpose Cleaner for Electrical and Industrial Use

#### • FAST EVAPORATING

Saves time and ensures moisture does not compromise electrical contacts or splices

#### MULTIPURPOSE

One cleaning solvent for routine maintenance and electrical services

#### • NO RESIDUE

Evaporates completely, leaving no conductive residue

#### APPROVED

Tested by medium and high voltage cable manufacturers

#### • **COMPATIBLE**

Does not corrode metal and is safe to use with most plastics

#### **Versatile Cleaner with Excellent Properties**

Polywater® Type FD™ is excellent for cleaning busbar, splices, contacts, meters, communication radios, cable, and electrical apparatus. Polywater Type FD removes semiconductive residue, adhesive, silicone grease, grimes, tars, adhesives, lubrication fluids, fluxes, antioxidants, and contaminants without leaving residue.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
FD-9	16 oz (475 ml) Aerosol Can	12
FD-35LF	1 qt (0.95 L) Bottle with Flip Top	12
FD-128	1 gal (3.8 L) Jug	4
FD-640	5 gal (18.9 L) Can	1
FD-DRUM	55 gal (208 L) Drum	1



#### **SPECIFICATIONS AND APPLICATIONS**

- Compatibility: FD Electrical Contact Cleaner will not corrode or stain metal parts. It does not tarnish or corrode copper per ASTM D130 and D1729.
- Dielectric Strength: 36kV per ASTM D877 standard test method.
- Flash Point: ~20°F (-5°C) per ASTM D56 standard test method.
- Residue: <100 ppm per ASTM D2369 standard test method.

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# **Polywater**Type KC™

#### **CONTACT CLEANER**



Fast-Acting and Precise for Cleaning Around Energized Electrical Enclosures, Apparatus and Sensitive Electronics



• NO RESIDUE Evaporates completely

NONCONDUCTIVE
 Will not short across typical electrical
 voltages once evaporated

NO FLASH POINT
 Safe and nonflammable

COMPATIBLE
Suitable to use on most types
of plastic, metal, and rubber

SAFE
 Replaces chlorinated
 electrical cleaners

#### **Clean Sensitive Electronics with Confidence**

Polywater® Type KC™ effectively cleans contacts, breakers, controls, switches, substation relays, busbars, meters, traffic control electronics, cables, and circuit boards. Polywater Type KC has low VOCs (volatile organic compounds) and contains no ozone-depleting chemicals. It is safer to use in confined spaces compared to chlorinated solvents.







#### **SPECIFICATIONS AND APPLICATIONS**

- **Dielectric Strength:** >25kV at a 100-mil gap per ASTM D877 standard test method.
- Flash Point: None per ASTM D93 standard test method.
- Residue: <100 ppm per ASTM D2369 standard test method. Leaves no residue.

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### SpliceMaster® Accessories

#### **CABLE PREPARATION PRODUCTS**



Precision Accessories that Safeguard Medium Voltage Cable Preparation

#### NONCONDUCTIVE

SP-ROLL leaves no conductive grit that could lead to tracking or arcing

#### • DURABLE

SP-ROLL resists shredding and helps to evenly "pencil" semicon layer

#### CONVENIENT

Snip the SP-ROLL for desired amount—eliminates waste

#### • VERSATILE

Use DT towels to apply bulk Polywater® cleaners

#### NON-LINTING

DT towels leave no residue that could lead to tracking

#### **Accessories for Safer Electrical Cleaning**

Polywater® SpliceMaster® 120-grit, nonconductive, aluminum oxide sandpaper rolls (SP-ROLL) are used to remove semicon shield residue and jacket polymers from cable insulation during splicing. Polywater SpliceMaster non-linting towels (DT-69 & DT-1212) contain no fiber-binding adhesives and leave no residue.



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V	1720	-	ANADA. Boloma	1

CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
SP-ROLL	1 inch x 50-yard Roll of 120-grit Sanding Cloth	1
DT-69	Box with 200 – 6" x 9" (152 mm x 229 mm) Dry Wipes	1
DT-1212	Box with 100 – 12" x 12" (305 mm x 305 mm) Dry Wipes	1

Packages designed for mobility.



Bulk cleaning using DT-1212.



#### **SPECIFICATIONS AND APPLICATIONS**

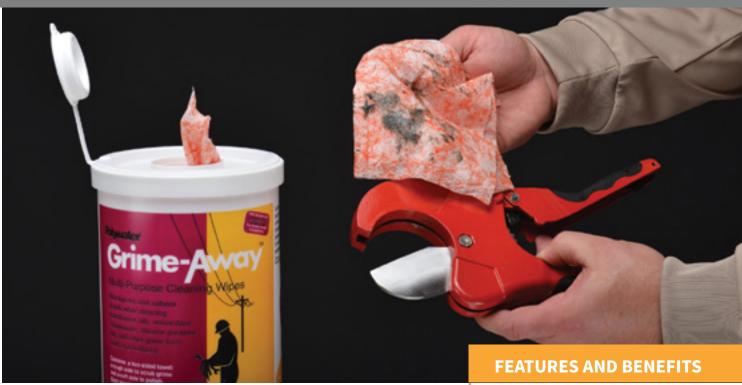
- **Performance:** Specification-grade Polywater DT lint-free wipes contain no fiber-bonding adhesives and outperform other commercially available towels. The use of rags or other non-specified wipes can leave lint residues on cable insulation that cause tracking. Bonding adhesives can dissolve in solvent, redeposit on cable insulation, and lead to failure. Recycled rags may also contain oils or other contaminants that can then be deposited onto the insulation.
- Compatibility: Only nonconductive sanding materials such as spec-grade Polywater SP-ROLL should be used.
   Emery cloth and standard store-bought sandpaper and abrasives can leave conductive grit residues that could lead to cable failure and hazardous conditions. Never abrade an energized cable.
- **Specify:** The key to good splices and reliable utility systems is to use recommended materials and follow proper procedures. Specify Polywater DT dry towels and SP-ROLL to ensure that conforming products are used in the field.

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## **Grime-Away**™

#### **HEAVY-DUTY CLEANING WIPES**



A Safe, Heavy-Duty Cleaner for Hands and Tools



grime, gels, and grease including drill rod grease

#### DUAL-TEXTURED DESIGN

Saturated wipe ensures thorough cleaning with rough texture on one side for scrubbing and smooth on the other side for wiping

#### MOISTURIZING

Softens and moisturizes skin while being tough on grime

#### • SAFE

Compatible with insulating rubber gloves and other linemen equipment after cleaning skin

#### • FIELD FRIENDLY

Durable container fits easily into tool bags and trucks

#### **Tough on Dirt, but Field Friendly**

Polywater® Grime-Away™ quickly and effectively removes hydraulic fluids, silicone greases, and antioxidant compounds from hands and all types of tools and equipment surfaces (including transformers, vehicles, and heavy machinery) for a clean and safe working environment. Its unique water-based formulation is gentle on skin and rubber personal protective equipment (PPE). Available in a convenient multi-wipe dispensing canister or single-wipe pouch.





CATALOG#	PACKAGE DESCRIPTION	UNITS/CASE	
HTC-D72	72-Count Dispenser of 10" x 12" (25 cm x 30 cm) Premoistened Wipes	6	
HTC-1	Saturated 10" x 12" (25 cm x 30 cm) Wipe	144	



#### **SPECIFICATIONS AND APPLICATIONS**

- Physical and Electrical Properties: Salisbury by Honeywell approves Grime-Away for cleaning hands that come
  into contact with insulating gloves (not for use on the gloves themselves). Tested and approved for compatibility
  with rubber insulating gloves by Salisbury by Honeywell's Criteria for Evaluating Chemicals in Contact with
  Salisbury Natural Rubber Lineman Equipment. Document available upon request.
- Insulating Rubber Goods: Use Polywater® RBG™ Rubber Goods Cleaner on rubber-insulating line hose, grounds, blankets, sleeves, and gloves.

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#### **INSULATED RUBBER GOODS CLEANER**



Safely Cleans EPDM and Natural Rubber Insulating PPE Products

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#### • EXCELLENT CLEANER Restores high visibility to

rubber goods • MULTIPLE PACKAGES

Can be used in the field, in tool rooms, and testing facilities

#### COMPATIBLE

Safe to use on EPDM and natural rubber

#### • INCREASES RELIABILITY

Uncovers hidden damage

#### • BIODEGRADABLE

Environmentally friendly

#### **Reduce Tracking and Restore Visibility**

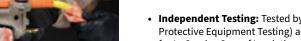
Polywater® RBG™ rubber goods cleaner is specially formulated to remove grease, dirt, carbon, creosote, hydraulic fluid, and other grime from PPE, helping keep workers safe. It works well as a daily cleaner to reduce tracking hazards and maximize the life of insulating blankets, lineman's gloves, rubber sleeves, jumper cables, hot jumpers, line hoses and other equipment.





	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
	RBG-D72	72-Count Dispenser of 10" x 12" (25 cm x 30 cm) Premoistened Wipes	6
1	RBG-1	Saturated 8" x 12" (20 cm x 30 cm) Wipe	144
-	RBG-35LR	1 qt (0.95 L) Bottle with Sprayer	12
	RBG-128	1 gal (3.8 L) Jug	4
	RBG-640	5 gal. (18.9 L) Pail	1



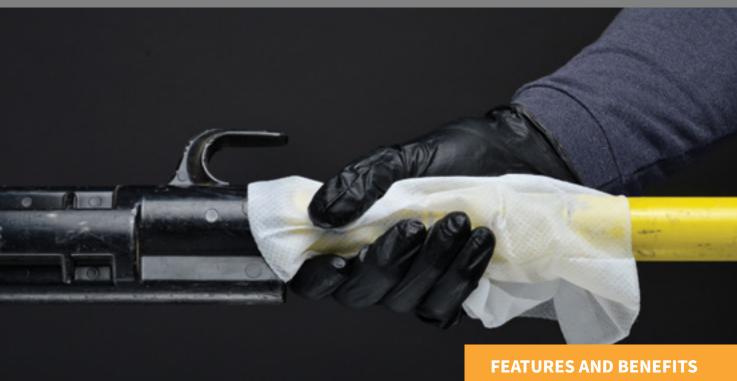


### **SPECIFICATIONS AND APPLICATIONS**

- Independent Testing: Tested by an independent NAIL® for PET (North American Independent Laboratories for Protective Equipment Testing) accredited laboratory in accordance with ASTM F496, "Standard Specification for In-Service Care of Insulating Gloves and Sleeves." Test data available on request.
- Compatibility: Passes all tests regarding synthetic and natural rubber in accordance with the ASTM
- Performance Properties: Passes Rubber Property—Effect of Liquids (ASTM D471) and Specification for In-Service Care of Insulating Gloves and Sleeves (ASTM F496).
- Safe: Does not contain solvents, neutral pH, and non-toxic.
- Approvals: Approved by Salisbury (Honeywell Safety Products) for use with Salisbury Rubber Protective Parts.

S-1

#### HOT STICK CLEANER AND WATER-REPELLENT WIPE



For the Maintenance and Protection of Live-Line Hot Sticks and Fiberglass Tools



#### COMPLIANT

Meets IEEE Std #978 and OSHA 29 CFR Part 1910 guidelines

#### • EFFECTIVE

Removes grease, dust, and grime while leaving a protective water-repelling silicone layer

#### • BEADS WATER

Silicone coating prevents continuous conductive water film on hot sticks in wet or humid weather conditions

#### • GEL COAT SAFE

Does not remove or affect the gel coat on live-line tools

#### CONVENIENT

Clean and protect with one-time-use towelettes

#### **Safeguard Live-Line Tools for Worker Protection**

Polywater® S-1™ Wipes help meet the daily requirement to inspect and clean hot sticks prior to each use. The wipes safely remove contaminants that contribute to tracking hazards, and then leave tools with a protective silicone coating. S-1 also effectively cleans and coats telescoping sticks for easier extension, and fiberglass rodders so they glide into conduits without sticking.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE	
S-1	Saturated 8" x 12" (20 cm x 30 cm) Wipe	144	



#### **SPECIFICATIONS AND APPLICATIONS**

- **Safety Guidelines:** Existing regulations mandate that "each live-line tool shall be wiped clean and visually inspected for defects before use each day," noting that a hot stick can become electrically unsafe because of a combination of wetting, surface contamination, and a loss of surface gloss. The best defense against accidents is a clean, glossy stick that causes water to bead up.
- **IEEE Maintenance Standard #978:** States that the best way to clean a stick is to use isopropyl alcohol followed by a silicone wiping cloth. The S-1 cleverly combines both alcohol and silicone in a one-step process.
- **Versatile:** S-1 wipes improve insulating performance after cleaning and protecting clamp sticks, hot sticks, bracing arms, cutters, and jumper holders.

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## BOOM<sup>™</sup> Prewash Wipes

#### **CLEANER FOR INSULATED BUCKET TRUCKS**



BOOM

B-D72

Specially Formulated Cleaner for Maintaining Insulated Bucket Trucks to Help Keep Workers Safe

#### POWERFUL

Removes grease, grime, tar, creosote, hydraulic fluid, salt, pine pitch, insects, and road debris before rinsing

#### • GEL COAT SAFE

Will not remove or adversely affect gel coat

#### APPROVED

Recommended by boom truck manufacturers

#### CONVENIENT

Large, pre-saturated cleaning wipes designed for overall or spot cleaning in the field

#### **BIODEGRADABLE**

Water soluble

#### **Maintain Equipment to Work Safely**

Polywater® BOOM™ Prewash Wipes safely remove unwanted contaminants from fiberglass boom arms and buckets to prevent tracking hazards. BOOM Prewash is water soluble and simply rinses off with water. BOOM Prewash is available in packaging options to fit a broad range of cleaning, maintenance, and safety needs.





_		
CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
B-1	Saturated 24" x 24" (71 cm x 71 cm) Towel	24
B-D72	72-Count Dispenser of 10" x 12 (25 cm x 30 cm) Wipes	6





#### **SPECIFICATIONS AND APPLICATIONS**

- **Testing:** Companies should follow boom truck manufacturer guidelines on the frequency of dielectric testing, proper cleaning practice, and other maintenance procedures. The ANSI A92.2-1990 Standard (Section 5.4.3) also addresses proper dielectric testing intervals and field inspections for aerial truck testing.
- **Guidance:** Common degreasers or solvents can harm and strip the gel coat on the boom, causing weak or soft spots. Many crews have access to solvents and know how well they remove grease, but such solvents can be harmful to the fiberglass portion of the boom arm or bucket. Some cleaners contain abrasives and leave a considerable residue. Others, like acetone, xylene, and toluene, can cause permanent damage if left in contact with the surface too long. These solvents are also flammable and often hazardous. Personnel should be trained to use only BOOM Wipes for the boom and bucket areas to keep the truck in proper working order.

For more information, read our BOOM Cleaning Guidelines: https://www.polywater.com/wp-content/uploads/pdf/LIT-BOOMguide.pdf

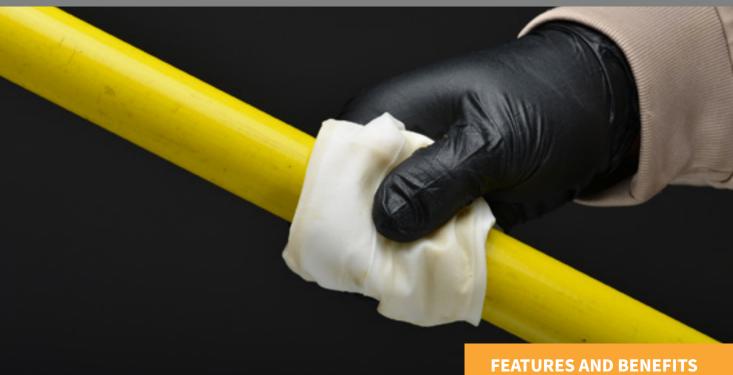
• **Protect:** After cleaning a boom or bucket truck with BOOM Wipes, the fiberglass areas should be treated with Polywater Wax to protect the gel coat surface. Available in bulk 16oz (475 ml) bottles (catalog # W-16) or pre-saturated wipes (catalog # W-1).

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### Fiberglass Wax & Buff Kit

FIBERGLASS WAX FOR GEL-COATED INSULATED EQUIPMENT



Protect and Maintain Gel-Coated Insulated Tools, Trucks, and Equipment



#### • PROTECTS

Does not remove or affect gel coat while leaving a nonconductive, water-repellent coating

#### RESTORES

Brings back luster and helps protect gel coat

#### **FAST ACTING**

Wax applies easily and hazes quickly

#### CONVENIENT

Dual-action tandem pack contains a wax-saturated wipe and dry buffing towel

#### COMPLIANT

Meets IEEE maintenance recommendations (Std #978)

#### **Regular Maintenance is the Key to Safety**

The Polywater® Fiberglass Wax & Buff Kit is designed to help keep equipment safe and companies compliant as part of regular live line tool and insulated boom truck cleaning and inspection processes. The carnauba-based wax is formulated to restore the surface luster of insulated fiberglass and to help protect the gel coat from degradation between cleanings or testing.





		<u> </u>
CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
W-1	Saturated 8" x 12" (20 cm x 30 cm) Wipe with Dry Buffing Towel	72
W-16	16 oz. (475 ml) Can	12





#### **SPECIFICATIONS AND APPLICATIONS**

Best Practice: Once a boom has been properly cleaned with Polywater BOOM Prewash Wipes, Polywater Wax should be used. This protects the gel-coat surface and forces water beading during misty or wet weather. All products used on boom trucks, including cleaners and protectants designed specifically for fiberglass booms, should be approved by the aerial lift manufacturer. Polywater products are approved by boom truck manufacturers. Refer to our boom truck cleaning and maintenance best practice for more detailed information to keep fleets in proper working order.

For more information, read our BOOM Cleaning Guidelines: https://www.polywater.com/wp-content/uploads/pdf/LIT-BOOMguide.pdf

• Industry Recommendations: Companies should follow boom truck manufacturer guidelines on the frequency of dielectric testing, proper cleaning practice, and other maintenance procedures. The ANSI A92.2-1990 Standard (Section 5.4.3) also addresses proper dielectric testing intervals and field inspections for aerial truck testing. Follow manufacturer and industry guidelines on the maintenance of boom trucks for safe and long-lasting aerial fleets.

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# **Polywater**Type P7™

**SPRAYABLE PENETRATING OIL** 



Multi-Functional Penetrating Oil Suitable for Many Electrical, Industrial, and Telecommunication Uses

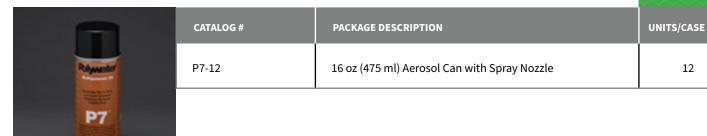


- PROTECTS
   Extends equipment life by providing a protective film
- DISPLACES WATER
   Seals out moisture and dries out ignitions
- PENETRATES
   Loosens stuck metal parts and apparatus
- Harmless to most plastics and safe on metal, paint, and rubber
- NONCONDUCTIVE
  Leaves a protective film that
  is nonconductive

#### **One Product for Multiple Jobs**

Polywater® Type P7™ works four ways: as a moisture displacer, rust preventative, lubricant, and penetrating oil. Eliminate the need to carry multiple products for separate tasks. Type P7 helps prevent electrical disruption caused by moisture penetration. Restore electrical systems or equipment damaged by water ingress. Quickly loosen stuck or frozen parts. Maintain and lubricate equipment and motors.







#### **SPECIFICATIONS AND APPLICATIONS**

- **Properties:** Flash Point (ASTM D93) 100°F/38°C, Initial Boiling Point 245°F/118°C, Specific Gravity 0.69, Dielectric Strength (ASTM D877) 13 kV.
- Water Displacement: P7 Multipurpose Oil displaces moisture and dries out ignitions. It seeps under water and ice, dissolving and carrying away contaminants. A nonconductive, protective film is left behind. P7 Oil displaces water according to the procedure described in Mil-Spec C-16173E. No rusting or mottling was observed on the treated surface.

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# **Polywater**Type CG™

**COLD GALVANIZING SPRAY** 



Prevent Rust and Inhibit Corrosion on Metal



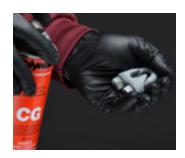
- PROTECTS
   Coating contains 95% pure zinc to prevent rust and corrosion
- REPAIRS
   Touch up cut, damaged, or exposed galvanized surfaces
- UNIVERSAL
   Can be used on all ferrous-based metals
- EFFICIENT
   Nozzle minimizes drips and dries quickly
- **SAFE**Compatible with plastics

#### **Actively Fights Corrosion and Rust**

Polywater® Type CG™ is an industrial aerosol coating for metal protection and repair. When sprayed on metal it forms a zinc-rich coating that prevents rust and inhibits corrosion through sacrificial galvanic action. It is ideal as a primer or for touch-up, and can be used on pole line hardware, conduits, trailers, threads, cut steel apparatus, fasteners, brackets, panels, cabinets, and welds.



	CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
Rayues	CG-13	16 oz (475 ml) Aerosol Can	12
CG			
Cu	4		



#### **SPECIFICATIONS AND APPLICATIONS**

- Mil Specifications & Certifications: P-26915A: Type 1 Class A primer for Steel (USAF); DOD-21035A: Zinc Rich Galvanize Repair; P-46105: Weld through Zinc Rich Primer; Salt Fog: Pass 1,000 Hours (ASTM B117); Humidity: Pass 500 Hours (ASTM D2247).
- Temperature Resistance: 250°F (121°C)—Sustained, 300°F (149°C)—Intermittent.
- Surface Preparation:

**For New Steel:** Surface must be dry and free of contamination. Remove all weld splatter and grind all rough welds to a smooth contour. Blast clean per SSPC SP 6-63 to a maximum profile of 1.5 mils (.038 mm).

**For Previously Painted Surfaces:** Must be free of oil, grease, and other contamination. For best results, spot blast exposed areas to be coated. Power tool brushing may be used for minor touch-up.

• Usage Instructions: Surface should be dry, 37°F (3°C) above the dew point, with air temperatures greater than 50°F (10°C). Surface must be free of rust bloom. Shake can vigorously until agitator frees. Spray using light, even strokes about 18 inches (½ meter) from surface. Several thin coats are recommended. Allow 15 minutes drying time between coats. Final coat should dry thoroughly (up to 24 hours). To avoid clogging nozzle, invert can and spray until only air escapes.

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# **Polywater**Type EFW™

#### **ALCOHOL CLEANING WIPE**



The Only 99.8% Pure Isopropyl Cleaning Wipe for PE Fusion



#### • EXCEEDS INDUSTRY STANDARDS

99.8% pure anhydrous isopropyl alcohol–the highest alcohol content in the pipeline industry–ensures residue-free cleaning

#### GOOD SOLVENCY

Removes mud, dirt, directional drilling fluid, and other contaminants from elbows, T's, saddles, and MET fittings to achieve better connections

#### • LARGE CLEANING WIPE

Use fewer wipes by cleaning more area per wipe

#### • SINGLE-USE WIPE

Presaturated, field-friendly cleaning wipe eliminates potential contamination from use of bulk alcohol and repurposed rags

#### **Comply with Industry PE Fusion Standards**

Industry guidelines recommend high-density polyethylene (HDPE) surfaces be cleaned before and after the peeling and scraping process. Polywater® Type EFW™ Wipes exceed industry standards for cleaning pipes and conduits prior to the electro or butt fusion process. The powerful solvency of Polywater Type EFW easily removes mud, dirt, or directional drilling fluid from pipes and tools, helping achieve better connections.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE
EFW-1	Saturated 5" x 8" (13 cm x 20 cm) Wipe	50
ACE-1L*	Saturated 10" x 12" (25 cm x 30 cm) Wipe	100

\*When VOC regulations do not allow the use of alcohol, the Polywater ACE™ acetone wipe is the best industry alternative. This water-free solvent wipe also offers excellent cleaning with no residue.



Effectively removes contaminants prior to electrofusion.



#### **SPECIFICATIONS AND APPLICATIONS**

- Compatibility: Safe for use with most common plastics and rubbers.
- **Convenience:** The non-linting, large-sized disposable wipe cleans more area per wipe, eliminating the need for reuse and limiting user exposure.
- **Residue:** Water-free and lint-free cleaning wipes contain no fiber-bonding adhesives that could leave a chemical residue.

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# **Polywater**Type WLD™

#### **GAS LEAK DETECTION FLUID**



Type WLD

Catalog &: WLD-128

ype WLD
Litels Detection Fluid
All Session

Detect Gas Leaks of Any Size in the Toughest Environments



# MAXIMUM COVERAGE Fully coats, and stays wetted to vertical surfaces, including PE, PVC and steel pipes

SAFE
 Non-toxic, non-flammable and non-corrosive—Does not contain glycol ether

• SPECIALLY FORMULATED

Dries clean without staining

ACCURATE DELIVERY SYSTEM
 Convenient flip-top package allows for easy application and storage

#### **Thoroughly Identify Leaks**

Polywater® Type WLD™ is specially formulated to detect small, large, and difficult-to-identify air and gas leaks. The packaging design allows precise directional application. It coats and clings to all types of vertical surfaces. It can be used in a range of environments and temperatures. Polywater Type WLD is non-toxic and contains no chlorine, aliphatic amines, glycol ether, or ammonium compounds.





CATALOG #	PACKAGE DESCRIPTION	UNITS/CASE	
WLD-35LF	1 quart (0.95 L) Bottle with Flip Top	12	
WLD-128	1 gal (3.86 L) Jug	4	



#### **SPECIFICATIONS AND APPLICATIONS**

- Application: Open the flip-top cap and squeeze WLD onto the suspected leak area. Watch for new bubbles to form. Mark the leak and wipe dry for repair.
- **Temperature Use:** All-season formula has a broad temperature use range: -30°F to 158°F (-34°C to 70°C), making it the perfect solution for detecting leaks in any environment.
- **Tested:** Long-lasting foam as tested by ASTM D1173. 150 mm in 1 minute and 130 mm after 5 minutes.
- **Properties:** WLD has excellent cling to PE, PVC, and steel. Vertical cling using a 10-mil (0.3 mm) coating held at 90° for 5 minutes retains >98% coating without non-wetting or drying.

Polywater is a leading specialty-chemical manufacturer that helps companies in the electrical and communications industries overcome specific, field-based challenges.



#### **CONTACT US**

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