

The World's Leading Manufacturer of

- Duct Sealants
- Cable Pulling Lubricants
- Rubber Goods & Fibreglass Cleaners
- Ground Moisture & Protective Barriers
- Leak Repair Kits for Oil Filled Equipment



***Our Energy, Your Power.***

## Cable Lubricants



Part No	Description
<b>J-640</b>	18.9L Drum
<b>J-128</b>	3.8L Bucket
<b>J-DRUM</b>	208L Drum

### Polywater Lubricant J Front End Pack

The Polywater Front End Pack (FEP) is a plastic, lubricant filled bag. It is designed to lubricate ahead of the cable during the pull, minimising friction where it is needed most. The Front End Pack lubricates far into the conduit where normal lubrication methods will not reach. This reduces the number of inspection/ lubrication points needed during the pull. The lubricants reach into the bends of heavy HV cable pulls ensures that cable and sidewall tensions are minimised where needed most.

The Front End Packs are filled with Polywater J Lubricant which is a high performance, clean, slow-drying, waterbased gel lubricant. Polywater J Lubricant provides maximum tension reduction in all types of cable pulling. It is especially recommended for long pulls, multiple bend pulls and pulls in a hot environment.

Lubricant J dries to form a thin lubricating film which retains its lubricity for months after use.

Part No	Description
<b>J-99</b>	950ml Front End Pack For ducts up to 75mm OD
<b>J-110</b>	1.9L Front End Pack For ducts 75mm and larger

### Polywater Lubricant J

Polywater Lubricant J is a high performance, clean, slow-drying, water-based gel lubricant. Lubricant J provides maximum tension reduction in all types of cable pulling. It is especially recommended for long pulls, multiple-bend pulls and pulls in a hot environment. Lubricant J dries to form a thin lubricating film which retains its lubricity for months after use.

Polywater Lubricant J is a specification-grade lubricant that does not promote flame propagation when used with fire-retardant cables and systems. It is harmless to humans, environmentally safe, compatible with common Australian cable jacket materials, and can be easily applied as part of the unique Polywater® Lubricant Application System.

- High performance cable lubricant for heavy cable installations
- Maximum Friction Reduction
- High Cling Factor
- \*Compatible with all common Australian cables
- Temperature Stable
- Non-Combustible Residue
- Specification Grade "J" - The lubricant contain no waxes, greases, silicones, or polyalkylene glycol oils
- Application System available in 'Front End Packs'
- Complete cleanup is possible with water
- Compatible with Pull Planner 4.0



Polywater Front End Pack follows the path of the pulling rope and dispenses lubricant directly on the bend of the conduit and in front of the cable



## Cable Lubricants



### Pourable Polywater Lubricant PR

- High performance liquid cable lubricant with silicone enhancement
- Silicone provides additional performance benefits in conduits with residual water
- PR Lubricant can be poured or pumped with either a hand or drill pump
- Polywater PR is slow drying. The residue is a thin, slippery film that retains lubricity for months after use
- Suitable for all common cable jackets and conduit types
- High stringability ensures that PR Cable Lubricant is pulled into the ducts for long cable runs

Part No	Description
<b>PR-128</b>	3.8L Bottle
<b>PR-35</b>	950ml Squeeze Bottle

### Polywater LZ Universal Cable Pulling Lubricant

Polywater® LZ offers proven cable compatibility, superior combustion resistance, and an inherently low coefficient of friction. Polywater LZ should be specified for installations of LSZH/LSHF cable in ducts and where fire propagation is a concern.

- Maximum tension reduction on all types of cable jackets.
- Suitable for all types of jackets and cable
- Meets the performance requirements of power and petrochemical plants, mass transit systems, airports, and high-occupancy buildings
- Tested on LSZH/LSHF thermoplastic and thermoset jackets
- Suitable for use on CSPE and CPE fire-retardant cable jackets.
- Compatible with Pull Planner 4.0

Part No	Description
<b>LZ-640</b>	18.9 Litre containers

Polywater LZ is available in other sizes on request



### Cable Pulling Lubricant Pumps

This models sets directly onto a bucket and comes with a 3m discharge hose, and two hands-free applicators for 38mm to 152mm conduits.

All Polywater® lubricants can be pumped directly into the conduit or onto the cable during cable installations at rates exceeding 5.6L per minute.

Part No	Description
<b>LP-D5</b>	Drill Operated Lubricant Pump



## Polywater Pull-Planner™

### Polywater Cable Pulling Software

#### Pulling Wire and Cables the Right Way is Critical

Make the right decision on cable pull direction. The Pull-Planner 4.0 easily shows optimal pull direction. It helps eliminate splices, plan for future system upgrades, and reduce the chances of cable damage. An excellent tool for cable system specification.

#### Achieve Longer Pulls by Keeping Tension Low

Pull-Planner™ 4.0 for Windows® calculates cable pulling tension and sidewall pressure around bends using the pulling equations. The Pull-Planner 4.0 also utilizes industry standards to calculate maximum pulling tension and conduit fill.

Plan conduit systems prior to the pull.

Pull-Planner 4.0 Report													
<div><div>Pull Description: Pull Example</div><div>Pull Filename: Pull-Planner Flyer Printout 10-11-17.xpl</div><div></div><div>Conduit ID: 101.6 mm                      Conduit Fill: 27%</div><div>Total of 3 cable(s) of 1 different type(s) being pulled.</div><div>Type #1 3 Cable(s) O.D. of 30.5mm weight of 0.412kgs/305mm</div><div>Total cable weight: 1.23 kgs/305mm</div><div>Calculated weight correction factor: 1.24</div><div></div><div>Configuration: Cradled</div><div></div><div>Jam/Clearance Analysis: Jamming Not Probable</div></div>							Polywater® LZ with Jacket: LLDPE and Conduit: Rigid Steel						
							Pull Detail Summary					Recommended Quantity : 41 litres	
							Total (Cumulative) Bend: 315 degrees Total Length Including Bends: 251m Conduit Fill 27 % Total Cable Weight: 1.23 per 305mm Conduit Condition: Poor					Lubricant Notes  Lubricant Best COF Value: 0.100 Un-Lubricated COF Value: 0.450  * Additional lubricant in recommended quantity based on long pull length. * Additional lubricant in recommended quantity based on total degree of bend. * Additional lubricant in recommended quantity based on conduit condition.	
Incoming Tension: 300 lbs                      Pull COF: 0.1													
Seg #	Straight Section Slope (°)	Slope Direction	Straight Section Length (m)	Straight Section COF	Tension (kg)	Bend Type	Bend Direction	Bend Radius (m)	Bend Angle (°)	Bend Length (m)	Bend COF	Tension (kg)	Sidewall Pressure (psi)
1	90.0	Down	2.43	0.1	124.04	Vertical Up	Down	0.91	90.0	1.43	0.1	145.15	0.423
2	—	—	60.96	0.1	182.43	Horizontal	—	0.91	45.0	0.73	0.1	200.94	0.590
3	—	—	152.4	0.1	294.16	Horizontal	—	0.91	90.0	1.43	0.1	357.43	1.048
4	—	—	30.48	0.1	376.07	Vertical Up	Up	0.91	90.0	1.43	0.1	461.30	1.347



#### Tesmec Electronic Pull and Speed Recorder DLR300

Suitable for Tesmec winches and allows accurate measurement and determination of in-field pulling tension and Coefficient of Friction (CoF).

#### Product Benefits

- **Intuitive Operation:** User-friendly menus and control buttons.
- **Customized Database:** Unlimited number of cables can be put in easy-to-use database.
- **Flexible:** Push/pull, variable friction, rollers, pull reverse, back calculation, and more.
- **Operates on Standard Windows®:** Allows data transfer for word processing, printing, and saving.
- **Universal:** Runs metric or English units

### Contact TEN to arrange a demonstration of Polywater Pull Planner 4.0

Part No	Description
PP-4	Polywater Pull Planner 4.0 Download

## Polywater Sealants



### Polywater FST - Foam Duct Sealant

FST™ Duct Seal is a “closed cell foam”, which is superior to “open cell” spray canned foams. The kit contains a cartridge filled with a two-part foam base, which is mixed in equal parts as it is pushed through a mixing nozzle. When mixed and injected, the foam expands and hardens, keeping water, acids, greases, gases, insects, and rodents, etc., out of the conduit. The foam has good wetting and adhesion to metals, plastics, and concrete.

#### Product Benefits

- Seal water, dirt, oil, gases, rodents, or other contaminants out of conduit/duct
- Cured foam is strong, resilient and chemically resistant
- Can hold 5m water-head pressure over an extended period
- Two-part foam is mixed in nozzle as it is injected - no mixing required
- Cured foam is semi-permanent and can be removed
- No known effects on common cables



Part No	Description
<b>FST-250KIT</b>	1 x 240g two-part Foam Sealant caulking tube style with resealing cap 3 x Mixing nozzles 4 x 600mm Foam damming strips 1 x Pair Disposable gloves 1 x Position rod 1 x Pre-treating wipe Instruction Sheet

### Polywater FSTBP-200 Burst Pack

- Suitable for ducts 125mm and larger
- FSTBP's long-lasting, 97% closed-cell seal denies entry of water, gases and pests into the duct
- The efficient application of the Burst Pack makes a fast and effective seal in 12-15 minutes
- Cost effective FSTBP makes protection of valuable infra-structure assets easy and economical
- FSTBP-200 cured resin is durable and flame retardant.



Part No	Description
<b>FSTBP-200KIT</b>	1 x Burst Pack 4 x Foam damming strips 1 x Pair Disposable gloves 4 x Positioning rod 1 x Sanding Cloth Instruction Sheet





## Sealants

### Polywater AFT Foam Sealant



Part No	Description	Units/Case
<b>AFT-16</b>	1 - 266ml can, 2 actuators	15
<b>AFT-16P4</b>	10-pack of actuators with standard extension tube	1
<b>AFT-16P4</b>	10-pack of actuators with flexible extension tube	1

#### Protects Conduit and Raceway Systems

AFT™ closed-cell sealant provides 3 metres of water-blocking performance in electrical and telecommunication environments. The two-part, closed-cell AFT Sealant is durable and easy to install. AFT has excellent adhesion to a variety of conduits.

#### Provides Quick and Easy Installation

AFT seals conduits with quicker installation and higher performance compared to duct putty or single-part insulating hardware store foams. The two-part aerosol foam seals any size void and cures without exposure to air. AFT expands and cures to a rigid, closed-cell structure in minutes. AFT creates an airtight, watertight seal. AFT can be used to seal service entrances, conduit stub-ups, innerducts, inverters and combiners for solar installations, and riser poles for the electrical grid. AFT protects against insects, rodents, moisture, dust, and gases. The package is reusable, and the fire-retardant seal is self-extinguishing.

#### Product Features

- Quick Installation: 2-minute application time or less.
- Multiple-Use Can: Creates numerous seals in all types of ducts.
- Reliable: Holds 3 metres of continuous water head pressure.
- Removable: Product can easily be removed to replace cable.

### Polywater FST-MINI Cartridge



Part No	Description
<b>FST-MINI KIT</b>	1 x 50ml cartridge 2 x Pair Disposable Gloves 5 x 50mm zip discs 2 x static mixing nozzles 1 x instruction sheet

#### Effectively Seals Small Conduits and Innerducts

Polywater® FST™ MINI is an expanding, quick-setting, "closed-cell" foam that is injected into a conduit to provide a watertight seal. The seal is superior to pliable duct putties and "open-cell" aerosol canned foams. Recommended for small conduits (less than 40 mm).

#### For Small Conduits and Innerduct Applications

One Polywater FST MINI cartridge seals approximately ten 25mm ducts. Polywater FST MINI meets and exceeds all NEC code requirements for sealing conduits: 2008, 2011, 2014, and 2017 NEC Articles 225.27, 230.8, 300.5 (G), 300.7 (A) on Raceway Seals, and 501.15 (B)(2).

#### Product Features

- Strong: Holds up to 7 m of water head pressure.
- Compatible: PVC, rigid steel, EMT, fiberglass, and cable jackets.
- Quick: Foam expands and cures quickly even when water is present.
- FST-MINI's 97% closed-cell seal is strong and durable
- Pre-formed disc barriers help make FST-MINI quick and easy to install
- FST-MINI's excellent pressure resistance protects data-center and electrical equipment
- FST-MINI's cured foam is fire retardant

## Sealants

### Polywater ZipSeal® Kit

ZipSeal Duct Sealant is a practical and efficient way to seal innerducts and conduits. The revolutionary Zip-Disc insert and unique two-part foam installs quickly and effectively. This innovative design allows for horizontal and vertical installation with minimal drippage. The foam can be removed in just minutes. ZipSeal can hold up to 10 feet of water-head pressure.

#### Product Features

- Suitable for ducts up to 50mm
- ZipSeal installs in seconds using innovative Zip-Disc technology
- ZipSeal is easily removed to reposition, replace or add cable to duct.
- ZipSeal allows for no-drip application in horizontal or vertical duct orientations
- ZipSeal protects ducts and cables from up to 3m of water-head pressure

Part No	Description
<b>FST-ZIPSEAL KIT</b>	1 x 50ml cartridge 2 x Pair Disposable gloves 5 x 2" Zip-Discs 2 x Static Mixing Nozzles 1 x Instruction Sheet



American  
**Polywater**  
Corporation

### Specific Cable Lubricants Available

- Fibre Optic
- Low Smoke Zero Halogen
- High Water Environments
- Cable Blowing
- Winter Conditions

**Call TEN to discuss your requirements**

## Sealants

### PowerPatch® Leak Repair Kit

Part No: EPCT-KIT1 + TOOL-50-11

#### Can Repair active leaks



#### Non-conductive and has a dielectric strength of 43KV (ASTM D149)

The PowerPatch® Sealant is provided in a kit containing the surface preparation and patching materials necessary to repair oil leaks in transformers, SF<sub>6</sub> Gas, lead-sheathed cables, potheads and other oil-filled electrical equipment.

#### Features

**Quick plugging action** - A fast-cure putty that stops oil seepage without shutting down

**Permanent seal** - A 2-part UV resistant paste overcoat that forms a permanent seal

**Durable** - Finished seal is impervious to water, oil and weather

**Fast** - System can plug and seal active leaks in minutes

**High Adhesion** - Adheres to numerous types of metals, porcelain, and rubber materials

**Chemically Inert** - Will not affect oils, solid insulation, or other equipment

**Saves money** - Faster than welding. Transformer may stay in service

**Simple** - Eliminates "bagging" or removal from field and unexpected outages

**Convenient** - Kit contains all materials needed to fix leak while in the field

#### USE ON:

- Transformers
- Potheads
- SF Gas
- Oil-filled equipment
- Lead-sheathed cables



Use the PowerPatch® System's putty stick to block oil and SF<sub>6</sub> leaks. Then make a permanent patch with the fast cure, 2-part paste overcoat. Ensure optimal mix and performance with pre-measured packaging. It is non-conductive and has a dielectric strength of 43KV (ASTM D149).

Seals punctures or cracks in hard to reach areas. Fixes leaks fast. At 21 °C, the putty and sealant harden in about 10 minutes. Repairs made at temperatures as low as 4.5 °C, have a somewhat slower cure.\* The finished patch is resistant to transformer oil and sulfur hexafluoride gas (SF<sub>6</sub>), and has held oil pressures in excess of 100 psi.\* Slower cure version available for larger leaks and repair areas. Preparation is important, and the kit approach provides everything needed to do the job, although in instances of excessive oil leakage or dirt accumulation, separate scrubbing rags such as Grime-Away™ Cleaning Wipes are helpful.

Part No	Description
EPCT-KIT1	2 x PowerPatch® 2-Part Cartridges with 4 static mixers
	2 x Putty sticks
	8 x Type TR™ cleaning and preparation wipes
	1 x 600mm sandpaper strip
	4 x application sticks, and instructions



**TOOL-50-11  
PURCHASED  
SEPERATELY**



## Sealants

### Dura-Plate™ 100 Epoxy Mortar



**A highly effective concrete coating where resistance to corrosive chemicals and abrasion is required**

Polywater® Dura-Plate™ 100 Epoxy Mortar is a three-part, resin aggregate system forms a trowelable epoxy mortar that applies easily to overhead and vertical concrete surfaces.

Dura-Plate™ 100 thixotropic mortar spreads easily when troweling, but firms quickly when work is stopped to minimize sag. When cured, Dura-Plate™ 100 Epoxy Mortar forms a high-strength protective coating for sanitary sewer lift stations, manholes, and other structures. It is impermeable to water and resistant to attack by hydrogen sulfide and acid generated by microbiological sources. It is safe to use and contains no VOCs.

**Non-Sagging** – Great for vertical and overhead application.

**Strong** – Excellent concrete adhesion after application and curing.

**Chemical Resistant** – Excellent resistance to hydrogen sulfide and sulfuric acid.

**Thixotropic** – Spreads with ease, sets firm when finished.

**Easy Application** - Requires no primer.

### Bonduit™ PE Conduit Adhesive



**Bonds HDPE and PVC conduit**

BonDuit® Conduit Adhesive creates a watertight and airtight conduit connection within an hour after application. The strong bond withstands movement and vibration, ideal for installation along roadsides or near electrical equipment such as transformers or switchgear.

#### Multi-Use Cartridge Creates Numerous Connections

BonDuit Conduit Adhesive is a two-part curing adhesive supplied in a side-by-side cartridge. BonDuit requires a ratcheted dispensing tool and nozzle to mix and apply quickly and easily. Several connections can be made from a cartridge. The cartridge can be recapped for later use with a new nozzle.

#### Product Benefits

**Versatile:** Bonds HDPE to PVC, rigid steel, and fiberglass conduits and fittings.

**Superior:** Stronger pullout strength than mechanical couplings.

**Durable:** Bonds with high strength within an hour.

**Easy to Use:** Requires no special training.

**Convenient Kits:** Contains all application components required for a quick installation.

Part No	Description
BT-KIT	2 - adhesive cartridges;
	8 - mixing nozzles;
	1 - strip of sanding cloth;
	8 - Type RP™ cleaning wipes

### Instagrout™

**Polywater® InstaGrout™ Sealant Barrier makes sealing transformer pad openings simple**

Polywater® InstaGrout™ helps prevent outages and service disruptions by creating a resilient and impermeable barrier that keeps out moisture and stops rodents, snakes, and insects from burrowing up through earthen gaps into the pad enclosure. InstaGrout's polymer matrix technology is easy to mix on site, and requires no water.

Field crews combine the pre-measured components and shake or stir for just 30 seconds. The InstaGrout™ Sealant is then poured into the transformer pad opening. The self-leveling mixture spreads out and expands evenly throughout the pad opening and around conduit stub-ups. The only site preparation required is to plug any gaps or holes inside the opening that could allow product to flow outside the pad opening.

## Cleaning Solutions

### Rubber Goods Cleaner



Polywater Rubber Goods Cleaner is a specially formulated water-based cleaner for removing grease, dirt, carbon, creosote, and other grimes from insulating blankets, lineman's gloves, rubber sleeves, jumper cables, hot jumpers, and line-hose. It is safe for use on all natural and synthetic rubbers. Unlike other water-based rubber cleaners Polywater Rubber Goods Cleaner contains no hazardous ingredients and is pH neutral, making it safe for use on skin. It is also completely biodegradable and safe for the environment.

#### Product Features

- No mixing required
- Excellent cleaning power
- Harmless to all elastomers (rubbers)
- Multiple package options
- Environmentally friendly
- Non-toxic and non-corrosive

**Rubber Goods Cleaner contains no hazardous ingredients and is pH neutral**

Part No	Description
<b>RBG-1</b>	Individual Sachet
<b>RBG-D72</b>	Dispenser of 72 saturated wipes
<b>RBG-35LR</b>	950ml Bottle with sprayer
<b>RBG-128</b>	3.8L Bottle
<b>RBG-640</b>	18.9L Drum



### Multipurpose Cleaner/Degreaser

HP™ is a specially formulated solvent for multi-purpose industrial and maintenance cleaning. It replaces ozone-depleting CFC's, trichloroethane and other carcinogenic chlorinated solvents. HP™ effectively cleans industrial grimes, greases, lubrication fluids, silicone, tars, adhesives, and fluxes.

- One cleaner for all your electrical and communications cleaning needs
- Contains no CFC's, HCFC'S, chlorinated solvents, perchloroethylene, or other ozone-depleting solvents
- Harmless to most plastics, including polycarbonate, ABS and polyethylene
- No residue, non-conductive, non-corrosive, non-freezing, non-staining to metals
- Removes residues that can cause poor operation of electrical equipment
- Suitable replacement for chlorinated electrical cleaners, cable cleaners, contact cleaners, and spray degreasers

Part No	Description
<b>HP-D72</b>	Dispenser of 72 saturated wipes
<b>HP-35LF</b>	950ml Bottle with flip top



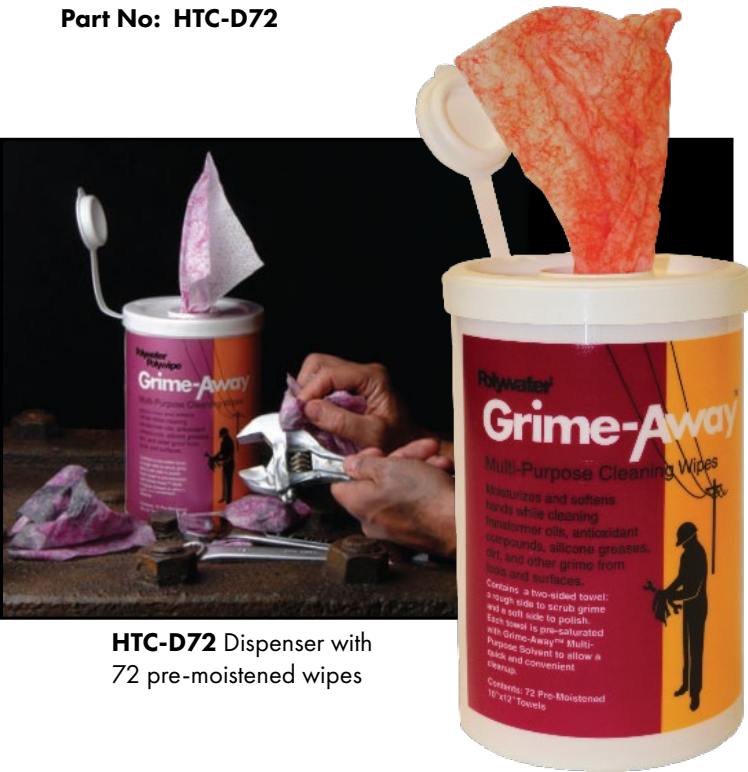
#### EFFECTIVELY CLEANS

- Switch Gear
- Motors
- Motor Control Devices
- Generators
- Tools
- Fusible Disconnect Devices
- Circuit Boards
- Relays
- Circuits
- Cables
- Cable Gels
- Silicone Greases
- Corroded Parts
- C-Cement
- Transformers
- Terminals
- Rheostats
- Contactors
- General Degreasing

## Cleaning Solutions

### GrimeAway Multi Purpose Cleaning Wipes

Part No: HTC-D72



HTC-D72 Dispenser with  
72 pre-moistened wipes

**Grime-Away™ towels feature a textured side to quickly remove greases, dirt, and grime. They also feature a soft side to be gentler on skin.**

Heavy duty towelettes are pre-moistened with a multi-purpose cleaning solution.

Towels feature a textured side to quickly remove greases and a soft side to be gentler on skin.

#### Quickly Removes:

- Transformer oils
- Cable gels
- Silicone greases
- Dirt/Soil
- Tar/Asphalt
- Gray and black oxide inhibitors
- HDD pipe thread grease
- Adhesive
- Caulk
- C Cement

#### Use On:

- Tools
- Work Surfaces
- Machinery
- Skin
- Equipment
- Service Vehicle

### Boom Pre-wash Wipe or Dispenser



B-D72

The pre-wash wipe is a cleaner-saturated towel that cleans grease, tar, salt spray, hydraulic fluid and road debris off fiberglass boom arms. The cleaner is water soluble, and washes off during subsequent water rinsing. Boom pre-wash does not adversely affect the gel coat on the boom. Available in 2 towel sizes and two packages.

#### Boom Wash Concentrate Available

B-1 Large  
600mm x  
600mm  
wipe



### An effective water soluble cleaner suitable for fibreglass booms

- Convenient, pre-saturated, lint-free wipes in two sizes
- Large and durable for maximum surface coverage
- Won't remove or adversely affect gel coat & prevents "build-up" over time
- Powerful cleaner removes grease, dirt, tar, and grime
- Removes road and sea spray salts (salt water is more conductive)
- Water soluble for easy water rinsing
- Designed for one time use and easy disposal
- Meets OSHA Maintenance Reg CFR 29 Part 1910

Part No	Size
<b>B-1</b>	Individual saturated 24"x24" wipe in sealed foil pouch
<b>B-D72</b>	Dispenser of 72 saturated wipes 10"x12"
<b>BWC-640</b>	<p><b>19L Boom Wash Concentrate</b></p> <p>Mix with water for a mild boom cleaner to spray, wipe, or pour on booms.</p> <p><i>Note: This detergent-based liquid is NOT the same solvent cleaner on the pre-saturated B-1 and B-D72 wipes.</i></p>



## Cleaning Solutions

### Hot Stick Cleaner & Water Repellent Wipe



**Part No: S-1**



- Convenient, pre-saturated, lint-free wipe
- Dual action - cleans and applies water repellent
- Does not remove or adversely affect gloss coat
- Evaporates quickly
- No "build-up" over time
- Prevents continuous water film on stick in wet weather
- Removes grease, dirt, and grime
- Designed for one time use and easy disposal
- Meets IEEE maintenance recommendations (Std #978)

S-1

### Fiberglass Wax & Buff Kit



W-16

W-1

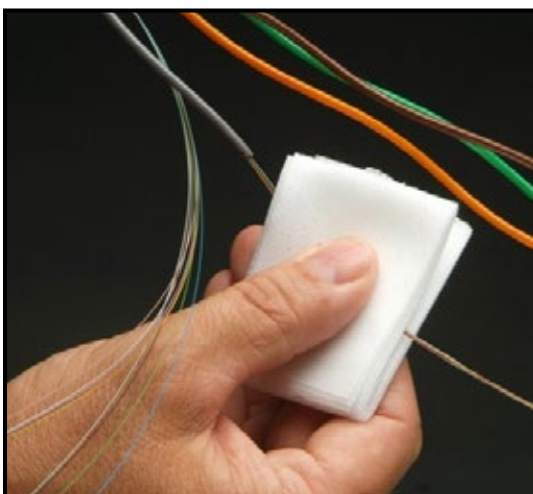
The Fiberglass Wax and Buff Kit contains a lint-free wipe saturated with a fast hazing fiberglass wax and a soft lint free towel for buffing the wax to a shine. This kit is suitable for use on non-conductive fiberglass booms and hot sticks. The Fiberglass Wax is also available in a 450g can, formulated specifically for fiberglass. This wax hazes quickly and buffs easily to a shine. The wax leaves a long-lasting surface barrier that protects the fiberglass booms.

- Convenient, wax-saturated, lint-free wipe
- Dual action tandem pack includes dry buffing towel
- Superior quality, fast-hazing fiberglass wax
- Suitable for rubber and porcelain materials too
- Easy to apply
- Does not remove or adversely affect gel coat
- Leaves non-conductive water repellent coating
- Prevents continuous water film on stick in wet weather
- Designed for one time use and easy disposal

Part No	Size
<b>W-1</b>	Fiberglass wax & buff kit
<b>W-16</b>	455g Can fast-hazing fiberglass wax

### Squeaky Kleen Comms Cleaner

**Part No. TC-1**



New SqueakyKleen™ cleans and fans fiber in two wipes without alcohol, saving time and money. Hear the difference! No follow-up with alcohol required to get fibers squeaky clean and separated when prepping for splicing. SqueakyKleen™ is less harsh on hands and reduces chemical odors and vapor concentrations to a minimum in splice trailers and vaults. SqueakyKleen's™ unique formulation and specially designed high-performance towelette work to remove pik from the entire surface of loose-tube or ribbon fibers, leaving no residue. SqueakyKleen™ helps keep splice equipment clean of contamination for better fiber alignment and splice quality. Safe on acrylate and Mylar®.



- Cleans off pik without the use of alcohol
- Minimal wiping (2 wipes only)
- No residue
- Safe to use on ribbon fiber
- Fans fiber quickly
- Cleans fiber squeaky clean
- Tested and approved

## Cleaning Solutions

### AquaKleen™ Fiber Cleaner



Who says you can't clean fiber with water? Defying conventional wisdom, AquaKleen™ Water-based Fiber Optic Endface Cleaner is a brand new solution to the problem of cleaning fiber.

**AquaKleen™** is a special blend of 94% pure deionized water with cleaning solvents. AquaKleen™ Cleaner is friendly to the environment, less toxic, and safer for use by humans.

**FiberKleen™** towelette dispenser contains 175 lint-free, high-quality microfiber towels that are used to clean ferrules, bulkheads and fiber endfaces. The engineered design of the nonwoven, highly absorbent towel traps the dirt and debris re-moved from ferrules, making cleaning easier and more effective.

- Water-based
- Less toxic
- Eco-friendly
- 94% pure deionized water
- Convenient packaging
- Non-hazardous for air shipment
- Meets Telcordia specification GR-2923-CORE "Generic Requirements for Fiber Optic Connector Cleaning Products."

Part No	Description
<b>AQ-2LP</b>	60ml AquaKleen™ Type AQ Finger Sprayer

### QuickKleen Fiber Cleaner

QuickKleen™ is a unique solvent blend that cleans completely, leaves no residue, and evaporates quickly. No water content means no streaking or residue. Cleaner is available in a convenient 60ml spray package, and as part of an all inclusive kit.



- Non-hazardous for air shipment
- Optimized for 1625nm standard
- Maximizes connectivity
- Convenient packaging
- Evaporates quickly
- Leaves no residue
- No streaking

Part No	Description
<b>QC-2LP</b>	60ml Type QC™ pump-spray plastic bottle

### FiberKleen Fiber Cleaner

FiberKleen™ is a unique solvent blend that cleans completely, leaves no residue, and evaporates quickly. No alcohol or water content means no streaking or residue.

FiberKleen™ towelette dispenser contains 50 lint-free, high-quality towels that are used to clean ferrules, bulkheads and fiber end faces. Keeps towels safe from contamination and easily fits into tool kits and bags—even your shirt pocket.



- Non-hazardous for air shipment
- Optimized for 1625 nm standard
- Maximizes connectivity
- Convenient packaging
- Evaporates quickly
- Leaves no residue
- No streaking

Available as individual towelette or 19L bucket

Part No	Description
<b>DT-D175</b>	175 microfiber towels in a sealed plastic dispenser pk with cleaning pad
<b>FC-2LP</b>	475ml Type FC™ pump-spray plastic bottle

### Water-Free Alcohol Fiber Optic Connector Cleaners

**Part No: FO-1**

- Removes oil, dust, and other contaminants.
- 99.8% Anhydrous Isopropyl
- Longer working times and more cleaning per wipe.
- Non-Abrasive



## Cleaning Solutions

### Polywater Solar Panel Wash



SPW-128

#### How to Use

- For best results Polywater SPW should be diluted.
- For pressure washers, hose sprayers, etc dilute 1:25
- For persistent soils, use a higher concentration of Solar Panel Wash and a soft cloth or brush to remove any remaining residues. Rinse the panels with 1:25 SPW™ solution and allow to dry. SPW™ leaves a clean surface that will dry faster, reduce spotting, and repel soil, making it easier to clean your panels the next time. As an option, rinse surface with water.
- Observe the condition of the panels and repeat the process above if necessary



Watch the Polywater SPW video on our youtube channel to see more

#### An Effective, Safe, and Economical Cleaner for Photovoltaic (PV) Panel Installations

Polywater® Solar Panel Wash is specially formulated for cleaning all types of solar panels without oxidizing or abrading aluminum rails and mounting apparatus. Many common car-wash soaps and window cleaners contain alkalines that promote oxidation and require a deionized water rinse.

Dust, bird droppings, pollution, pollen, tree sap, plant matter residue, etc., all reduce the overall effectiveness of solar panel generation capacity. A 2011 study by the World Academy of Science, Engineering and Technology concluded that "accumulated dust on the surface of photovoltaic solar panels can reduce the system's efficiency by up to 50%." Panels must be cleaned regularly to maximize system performance and longevity.

Even if only one panel in a string operates at 10% less than full capacity due to contamination, the entire string suffers the same 10% performance loss. This is known in the industry as the "Christmas-lights effect". The small cost of regular cleaning with Polywater® Solar Panel Wash yields big savings by increasing panel capacity.

#### Benefits

- **Industry Approved cleaner**  
Polywater SPW is approved by major PV panel manufacturers.
- **Increased PV performance output**  
It is scientifically proven that clean PV panels produce more power - cleaner panels = bigger savings
- **More efficient cleaning**  
Polywater SPW effectively reduces the need for excessive rinsing
- **Environmentally friendly**  
Does not contain solvents - no VOC's - non-flammable  
Phosphate-free - Chlorine-free
- **Safer to use**  
Polywater SPW is pH neutral - non-caustic and non-alkaline. Will not affect aluminum rails or racking like common detergents
- **Economic to use**  
Does not require deionized or purified water rinse. Saves time and materials

Part No	Description
SPW-128	3.8 litres



## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

**Go to [tengroup.com.au](http://tengroup.com.au) to find out more about the range of Polywater products.**

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# TEN

the energy network



SCI QUAL  
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QUALITY APPROVED TO  
AS/NZS ISO 9001:2008  
REGN. Number 331



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OHS SYSTEM CERTIFIED TO  
AS/NZS 4801:2001  
REGN. Number 3567



SCI QUAL  
INTERNATIONAL  
ENVIRONMENTAL SYSTEM CERTIFIED TO  
AS/NZS ISO 14001:2004  
REGN. Number 4279

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