

DESCRIPTION

FiberKleen[™] Fiber Cleaner is formulated for cleaning high-speed fiber and specialty optics. Its excellent solvency lifts drywall dust, buffer gel, lint, fingerprints, oils, etc., to clean precision parts. FiberKleen dissipates static, removing surface charge so that the surface is less likely to be re-contaminated.

FiberKleen has a high flash point, so it is safe to use and ship. FiberKleen will not freeze. It can be used in extreme temperatures, both cold and hot. FiberKleen effectively cleans a broad variety of contaminants. It is available in a variety of convenient packages. Specialty packaging is designed specifically for fiber and precision cleaning.

FiberKleen is part of a broader package solution for cleaning precision optics. It is packaged in easy-to-use containers that allow precise cleaner application, which limits waste and contamination. It is offered with FiberKleen towelettes. The nonwoven, highly engineered towel traps dirt and absorbs contaminants from the optical surface. A smooth wiping surface and durable material promote easy, effective cleaning.

PERFORMANCE PROPERTIES

FiberKleen is designed for high-performance optical cleaning. FiberKleen cleans a broad variety of endface contaminants.

SOIL TYPE	CLEANING EFFECTIVENESS
Dry/ionic soil (dust, salt)	Excellent
Wet/non-ionic soil (oil, buffer gel)	Excellent
Combination soil	Excellent

FiberKleen has been tested to the rigorous standards of Telcordia GR 2923-CORE, "Generic Requirements for Fiber Optic Connector Cleaning Products."



FiberKleen cleans without leaving a residue

PRODUCT FEATURES

- **Cleans Fiber Endfaces:** Minimizes signal loss and maximizes connectivity.
- **Excellent Solvency:** Cleans all types of soils without leaving a residue.
- **High Flash Point:** Safe to use and ship.
- **No Residue:** No streaking to block complete light transmission.
- **Convenient Packaging:** Lightweight package for easy field use.

APPROVALS

- Meets Telcordia GR 2923-CORE, "Generic Requirements for Fiber Optic Connector Cleaning Products."
- RoHS and WEEE compliant.

PHYSICAL PROPERTIES

FiberKleen is a high-purity, optical-grade cleaner.

PROPERTY	RESULT
Residue	<100 ppm
Flash point (ASTM D93)	<140°F (60°C)
Initial boiling point	365°F (185°C)
Freeze point	-58°F (-50°C)
Specific gravity	0.79
Evaporation rate	Medium

DIRECTIONS FOR USE

FiberKleen is best used with the combination wet/dry cleaning procedure. Non-linting towels (DT-D175) available from American Polywater Corporation work well with this method.

Place several drops or a light spray of cleaner on the towel. Preferred cleaning motion is in a straight line, drawing the endface through the wetted portion of the towel, and then through a clean portion of a second dry towel. Swabs may be dampened on the wetted portion of the towel in order to clean the alignment adaptor or scope.

APPLICATION PROPERTIES

Temperature Use Range:

20°F to 120°F (-5°C to 50°C)

Storage and Shelf Life:

Keep containers tightly closed when not in use. Shelf life is 2 years.

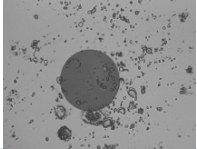
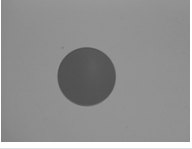
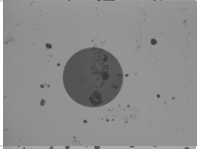
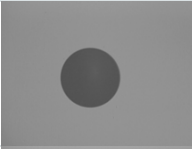
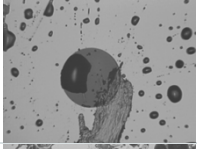

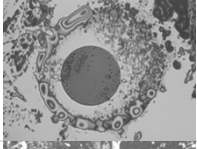
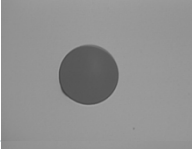
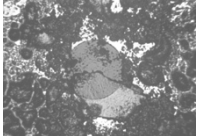
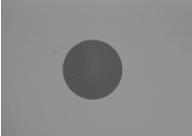
END USE

FiberKleen Fiber Cleaner is an excellent choice for cleaning precision fiber optic components such as:

- Endfaces
- Single-mode fiber
- Multi-mode fiber
- Ferrules
- Bulkheads
- Lenses, mirrors

CLEANING PROPERTIES

FiberKleen Fiber Cleaner removes a broad range of contaminants from fiber connectors. To prove this, reference reflectance and transmitted power are measured on an unsoiled test connector. Readings are taken at 1310 nm, 1550 nm, and 1625 nm. Near-end connector plug is removed and soiled according to standard.¹ Connector end adapter is cleaned using recommended procedure. An electronic image of each cleaning is recorded.

SOIL	IMAGE—SOILED	IMAGE—1 ST CLEANING
Gypsum		
Carbon black		
Olive oil		
Gypsum/ buffer gel		
Gypsum/ 10W30 oil		

SOIL	INSERTION LOSS	REFLECTANCE
Gypsum	Pass (<0.05 dB loss)	Pass (<2 dB change)
Carbon black	Pass (<0.05 dB loss)	Pass (<2 dB change)
Olive oil	Pass (<0.05 dB loss)	Pass (<2 dB change)
Gypsum/ buffer gel	Pass (<0.05 dB loss)	Pass (<2 dB change)
Gypsum/ 10W30 oil	Pass (<0.05 dB loss)	Pass (<2 dB change)

¹ Tested using methods from Telcordia GR-2923-CORE, "Generic Requirements for Fiber Optic Connector Cleaning Products."

COMPATIBILITY

FiberKleen is compatible with most common plastics and rubbers.

Polycarbonate:

Injection-molded plaques of polycarbonate are cut into bars, 2½ inches by ½ inch. Samples are bent in a three-point fixture. Percent strain is calculated based on the bar thickness and the radius of curvature.

“Strain limit” is the greatest percent strain where no stress cracking occurs. A strain limit greater than 0.5% indicates strain resistance.

Strain Limit >0.7%

FiberKleen shows good compatibility with polycarbonate.

Cladding:

Fiber cladding (Corning Cable) is firmly wiped 5 times with a cleaner-saturated towel. Towel and cable are visually inspected for cladding transfer or damage.

Cladding shows no visible damage.

FiberKleen shows good compatibility with fiber cladding.

ENVIRONMENTAL IMPACT

PROPERTY	RESULT
VOC content	790 grams/liter
Global warming potential	Does not contain global warming compounds
Ozone depletion potential	None
CFC, HCFC, HFC content	None
RCRA	Not regulated as hazardous waste
CERCLA/SARA status	Not regulated as a hazardous substance
RoHS and WEEE	Compliant
REACH	Compliant

SAFETY

FiberKleen has a low level of toxicity and contains no listed carcinogens. Good industrial hygiene practice and appropriate precautions should be employed during use. See SDS for specific details.

PACKAGING

FiberKleen is packaged in safety sealed containers that resist spills, leaks, and contamination. The 2 fl. oz. spray bottle has over 500 uses.

Non-Linting Towels:

FiberKleen is offered in conjunction with Polywater FiberKleen Dry Towels. The non-linting, ultra-clean towels offer high absorbency. This specialty, nonwoven fabric is engineered for optimum particle entrapment. The edges are sealed to eliminate fraying. The medium-weight towel is durable and has a smooth surface for easy cleaning. It meets all Telcordia Specifications.



Convenient kit packaging and cleaning accessories

SOAK TESTING

Materials are immersed in FiberKleen for 72 hours at 50°C (122°F). Some rubbers may swell slightly, but will return to their original state once the cleaner evaporates.

MATERIAL	COMPATIBILITY
ABS	Excellent
Acrylic	Excellent
EPDM	Excellent
Nylon 66	Excellent
Polycarbonate	Excellent
Polyethylene (XLPE)	Excellent
Polyethylene (MDPE)	Excellent
PVC	Excellent
Silicone rubber	Excellent

MODEL SPECIFICATION

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

The fiber cleaner shall be effective on both ionic and non-ionic soils. It shall meet the cleaning criteria of Telcordia GR 2923-CORE, "Generic Requirements for Fiber Optic Connector Cleaning Products." It shall contain an oxygenated solvent component for static dissipation.

The cleaner shall leave minimal residue of less than 100 ppm. It shall be compatible with fiber optic components. It shall not stress crack polycarbonate and shall have a strain limit greater than 0.5%.

The cleaner shall have a flash point above 140°F (60°C) for safety and ease of transportation. It shall have low toxicity and low environmental impact. It shall not contain any global warming compounds and shall have no ozone depletion potential.

ORDER INFORMATION

CAT #	PACKAGE DESCRIPTION
FC-2LP	2-oz. FiberKleen Fiber Cleaner finger sprayer
DT-D175	175 nonwoven towels in a sealed case with cleaning pad

CONTACT US

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IMPORTANT NOTICE: The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.

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

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