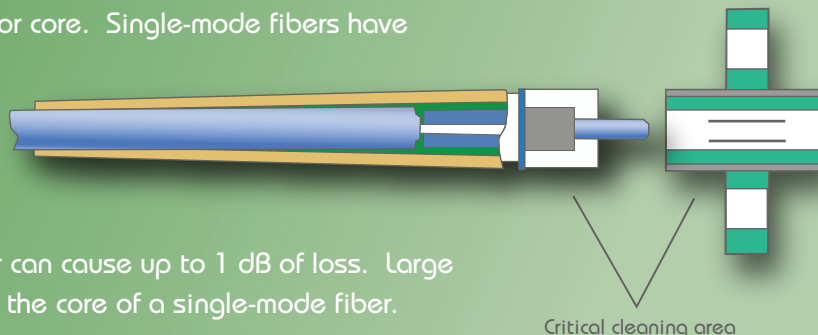


Why is it so important to clean Fiber Optics before connecting them?

Dust, lint, oil (from touching the fiber end face), or other foreign particles obscure the end face, compromising the integrity of the optical signal being sent over the fiber.

It is hard to conceive the size of a fiber optic connector core. Single-mode fibers have cores that are only 8-9 μm in diameter. A typical human hair is 50 – 75 μm , approximately 6 – 9 times larger. Dust particles can be 20 μm or larger in diameter. Dust particles smaller than 1 μm can be suspended almost indefinitely in air. A 1 μm dust particle landing on the core of a single-mode fiber can cause up to 1 dB of loss. Large dust particles (9 μm or larger) can completely obscure the core of a single-mode fiber.



Source: www.fiber-optics.info

Required Equipment for Cleaning:

- ♦ Kimwipes® or any lens-grade, lint-free tissue (M.G. Chemicals Cat. No. 830-05511).
- ♦ Note: Use only industrial grade 99% pure isopropyl alcohol. For best results, use special micro filtered isopropyl alcohol (M.G. Chemicals Cat. No. 8234-500ML)
- ♦ 30X microscope
- ♦ Pressurized aerosol duster (M.G. Chemicals Cat. No. 402B-340G)
- ♦ Fiber Optic Cleaning Kits are also available in the market that includes all of the above and dispensing pump for the cleaner. (M.G. Chemicals Cat. No. 8234-K)

The Fiber Optic Cleaning Kit includes:

- ♦ 1 x M.G. Chemicals Fiber Optic Cleaner (500 ml)
- ♦ 1 x Kimtech Precision Wipes (280 wipes per box)
- ♦ 1 x Dispensing Pump



Cat. No. 8234-K

Cleaning Tips:

1. Fold the tissue twice so it is four layers thick.
2. Saturate the tissue with alcohol.
3. First clean the sides of the connector ferrule. Place the connector ferrule in the tissue, and apply pressure to the sides of the ferrule. Rotate the ferrule several times to remove all contamination from the ferrule sides.
4. Now move to a clean part of the tissue. Be sure it is still saturated with alcohol and that it is still four layers thick. Put the tissue against the end of the connector ferrule. Put your fingernail against the tissue so that it is directly over the ferrule. Now scrape the end of the connector until it squeaks. It will sound like a crystal glass that has been rubbed when it is wet.
5. Use the microscope to verify the quality of the cleaning. If it isn't completely clean, repeat the steps with a clean tissue. Repeat until you have a cleaning technique that yields good, reproducible results.
6. Mate the connector immediately! Don't let the connector lie around and collect dust before mating.
7. Air can be used to remove lint or loose dust from the port of a transmitter or receiver to be mated with the connector. Never insert any liquid into the ports.

E-mail info@mgchemicals.com
 Phone 1-800-201-8822
 1-604-888-3084
 Fax 1-800-708-9888
 1-604-888-7754



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