



“Wet-Dry” Cleaning vs. “Dry-Only” Fiber Optic Cleaning

By Harvey Stone, Product Manager, MicroCare Corp.

JDSU is doing a wonderful job campaigning for “Fiber Optic Cleaning.” In fact, they include many of the Sticklers™ cleaning products in their fiber optic cleaning kits. JDSU suggests that 80% of the network failures they see are connector-related, and most of those are contamination issues.

However, JDSU cleaning presentations and their “recommended best practices” suggest that users should try “dry” cleaning first, and only attempt “wet-dry” cleaning if “dry” cleaning fails to get the job done.

I believe they have adopted this position because they do not feel that the fiber optic techs will take the time to “wet-dry” clean and they want to encourage them to at least “dry” clean.

The drawback to a “dry” cleaning only procedure is that “dry” cleaning puts a static charge on the connector end-face. Repeated cleanings, with more wipes of dry cleaning materials, adds to the charge on the connector end-face.

iNEMI documented this in tests that are detailed in the NFOEC 2007 paper “Accumulation of Particles Near the Core During Repetitive Fiber Connector Matings and De-matings.” The paper stated that: “It also was shown that the [static] effect could be reduced by application of ionized air or by a cleaning fluid instead of a dry cleaning process, both methods neutralizing the electrostatic charge at the connector end face.” The solvents used in their test procedure were MicroCare’s Fiber Connector Cleaner and Fiber Preparation Fluid (which have now been superseded by a new and improved product, the Fiber Optic Splice and Connector Cleaner, #MCC-POC03M).

Therefore, it is my contention that the “Best Practice” should be “wet-dry” cleaning. By that, I mean that (a) the wipe material should be dampened with a solvent; (b) the connector should be placed in the damp area and then (c) drawn into the dry area of the wipe.



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This can easily be accomplished with our new Triton packaging on the cleaning fluid. Just “flip” the dispenser open and press the wipe down on the can of solvent and you will have a dampened spot (photo, left). Then drag the connector across the wipe, from the damp spot to the dry area. The connector will be clean.

If a cartridge-type cleaning device is being used, like a CLETOP™, the leading edge of the wipe window can be dampened with the cleaning fluid using the red straw, and connector can be wiped from wet to dry.

If ports need to be cleaned, the tip of the swab easily can be dampened with the cleaning fluid, using the well on the side of the Triton dispenser. If one of newer mechanical port cleaning devices is being used, the “tip” of the device can be dampened with the cleaning fluid using in the Triton cap, as well. In this case the first activation of the device will be a wet wipe of the connector end-face and second activation will be a dry wipe.

In summary: Since most procedures suggest repeated attempts to clean the connector end-face if it not visually clean during optical inspection, it would make sense to perform wet-dry cleaning with a static-dissipative solvent rather than building a charge on the connector end-face which will attract particulate contamination. Also, it should be noted, Verizon Corp. has standardized on wet-dry cleaning for their fiber installation and maintenance procedures.

For more details, visit www.SticklersCleaners.com and search for “wet-dry”.