

Application Note

OSP Copper Cable Gel Removal

This app note provides guidance to copper cables containing gel, which are designed to provide resistance against water ingress, particularly useful if the cable jacket becomes compromised at any point during its service life.

These instructions are not meant for copper cables that, while suitable for outdoor use, do not contain gel, such as SST Outdoor cables. The focus remains strictly on gel-filled cables, as their unique construction is what enables them to offer added protection from moisture.

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NS-AN26-0003

Date:

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Product Line:

Outside Plant Cables

Part Numbers Affected:

Gel-Filled Copper
Cables

Removing the gel requires the following tools:

- Gloves, such as disposable nitrile gloves
- Cable jacket stripping tool
- Lint-free wipes
- Cleaning products
 - Telecom-safe gel cleaning wipes
 - Telecom-safe citrus-based degreaser
 - Isopropyl alcohol (IPA), 70% to 99 % (90%+ preferred)

WARNING: Never use petroleum-based solvents (e.g., mineral spirits, gasoline, kerosene) to clean cables; they can degrade the materials used in the cable and cause long-term signal issues.

Please follow these steps to remove the gel:

1. Install the cable as required

NOTE: gel-filled cables, being water resistant, do not need to be sealed on the end for installation

NOTE: The terminated end should be in an appropriate location that protects connection

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points from the outside environment.

2. Prepare the installation area, by wearing gloves and laying down any protection for equipment

NOTE: Gel can be messy and sticky; gloves allow an installer an easier clean-up time.

NOTE: Equipment protection can be a disposable mat or towel.

3. Set the cable jacket stripping tool to an appropriate depth to cut through the jacket but not nick the copper conductors or insulation.
4. Strip the jacket off the cable, at an appropriate location for installation.
5. Remove the jacket from the cable's pairs
6. Remove the gel with the dry, lint-free wipes

NOTE: Do not scrape insulation when removing the gel; this could cause the gel to work into the abrasion spots

7. Moisten a lint-free wipe with the chosen cleaning product

NOTE: if using telecom-safe gel cleaning wipes, this step does not need to be followed

8. Clean the gel around the pairs from the jacket to the cut end
9. Once cleaned, separate out each pair
10. If present, remove the cross-filler from the cable, at the jacket

WARNING: When removing the filler, make sure the insulation around the conductors are not damaged

11. Using a new moistened wipe, continue to remove gel from the pairs, from the jacket to the cut end
12. Repeat the previous step as often as needed until all of the gel has been removed from the pairs
13. Allow any cleaner present on the pairs to dry

NOTE: IPA will air dry in a few seconds; other cleaners may require dry wipes to remove

14. Perform a final cleaning with a dry lint-free cloth, ensuring the pairs are:

- a. Not slippery
- b. Free of visible gel
- c. Completely dry

15. Terminate the cable to the intended connectivity according to the manufacturer's instructions