

Stripping the outdoor fiber optic cable

Article Overview

Stripping outdoor fiber optic cables requires careful removal of protective layers using specialized tools to expose the fibers without causing damage.

Key Considerations for Outdoor Cables

Outdoor fiber optic cables often have multiple protective layers, including an outer jacket, aramid yarn for strength, water-blocking materials, and individual fiber buffers. Unlike indoor cables, outdoor cables are designed to withstand environmental stress, so stripping must be done progressively and carefully to avoid nicking or scratching the fibers, which can compromise signal integrity and lead to future failures .

Tools Required

- o Mechanical fiber strippers: Handheld tools with precise blades for removing coatings and jackets .
- o Thermo-mechanical strippers: Use heat to soften the coating before removal, reducing the risk of fiber damage .
- o Non-contact methods: Hot air or laser ablation for delicate fibers.
- o Chemical strippers: Solvents or acids for specialized coatings.
- o Fiber cleaver and inspection microscope: For preparing clean, perpendicular fiber ends after stripping .
- o Lint-free wipes and high-purity alcohol: For cleaning stripped fibers .

Step-by-Step Stripping Process

- o Plan and mark the cable: Determine the length of jacket to remove based on termination or splicing requirements. Mark the outer jacket accordingly .
- o Score and remove the outer jacket: Use a hook blade or jacket cutter to score the outer layer 7-10 inches from the cable end. Pull the ripcord (if present) to remove the jacket without cutting underlying layers .
- o Remove strength members: Carefully strip aramid yarn or other reinforcing fibers, ensuring they do not damage the inner buffers .
- o Strip individual fiber buffers: Use a precision fiber stripper to remove the buffer coating from each fiber, exposing the bare glass. Avoid nicking or scratching the fiber .
- o Clean the fiber: Wipe the exposed fiber with alcohol or a dedicated fiber cleaner to remove debris and coating residues .
- o Cleave the fiber: Use a fiber cleaver to create a smooth, perpendicular end face for splicing or connectorization .
- o Inspect and protect: Examine the fiber under a microscope or visual fault locator to ensure no defects. Cover the prepared ends with protective caps until termination .

Best Practices

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- o Always work in a clean, well-lit area to prevent contamination .
- o Strip fibers progressively, layer by layer, rather than attempting to remove all layers at once .
- o Maintain sharp cutting edges on strippers to ensure clean cuts and prevent fiber damage .
- o Limit stripping lengths to avoid weakening the fiber; typically, no more than 50 mm at a time for bare fibers .
- o Use protective sleeves or shrink tubing to secure fibers after stripping and before termination . By following these steps and using the appropriate tools, outdoor fiber optic cables can be stripped safely, ensuring reliable splicing, connectorization, and long-term network performance .

Fiber-Life offers a variety of fiber strippers, each designed to play a crucial role in the fiber optic cable

Accurate cable stripping is the foundation of every successful fiber optic installation. Our fiber optic

We left off last month preparing a fiber optic cable for termination. We were at the point where we had slipped the strain-relief boot

Learn how to use fiber strippers, cable cutting scissors, and armored cable slitters. Discover their applications in fiber

Trusted since 1958, Jonard's Fiber Stripping Tool is a must-have for all fiber technicians. Shop Jonard's popular collection of fiber

Lesson: Stripping Optical Fiber Cable Objectives: From this lesson you should learn: How to use these tools to strip cable to the bare

You have successfully completed this exercise when you have been able to strip the jacket and both buffer coating layers from the

While a cut or damaged fiber optic cable can temporarily take your network down, it is possible to quickly fix the cable

FIBER HANDLING, STRIPPING, CLEAVING AND COUPLING This application note addresses general handling of fibers from NKT

Fiber cable stripping tools are essential for anyone working with fiber optics. Understanding the different types of tools, their

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pigtail is a high-quality optical

Introduction: Stripping and preparing fibre optic cables for termination is a critical step in the installation and

Good fiber optic stripping techniques in your cable assembly process are crucial. See best

If the blade of the strip tool contacts the bare fiber, it's easy to scratch the fiber OD, reducing product reliability. Click

A fiber stripper is a precision tool used to remove the protective polymer fiber coatings from an optical fiber. This process exposes

For the Corning FASTACCESS fiber optic cable, I will show you how to remove the jacket

Web: <https://in-au.co.za>

