

Article Overview

Fiber optic cable stripping must follow precise standards and best practices to expose the glass fiber without causing damage, ensuring reliable signal transmission and safety compliance.

Industry Standards

Fiber optic stripping is guided by both formal standards and best-practice guidelines. Key references include:

- o FOA Standards: The Fiber Optic Association (FOA) provides standards for fiber optic installation and handling, including stripping procedures, emphasizing proper tool use, layer-by-layer removal, and safety precautions to prevent fiber damage or personal injury .
- o NASA Workmanship Standard (NASA-STD-8739.5A): Specifies requirements for fiber optic terminations and cable assemblies, including stripping techniques, acceptable tolerances, and inspection methods to ensure high-quality optical connections .
- o Manufacturer Guidelines: Companies like Corning provide detailed procedures for ribbon and multi-fiber cables, specifying strip lengths, layer handling, and protective measures for the fiber core .

Stripping Techniques and Tools

Proper stripping involves removing coatings and jackets without nicking or scratching the glass fiber:

- o Layer-by-Layer Stripping: Multi-layer cables must be stripped progressively, with each layer removed to the specified length using appropriate tools .
- o Fiber Strippers: Precision tools are used to remove coatings cleanly. These include:
 - o Mechanical strippers: Handheld or automated tools with calibrated blades for standard 125 um cladding fibers .
 - o Thermal strippers: Heat softens the buffer for easier removal without touching the glass .
 - o Specialty strippers: For tight buffers (900 um) or plastic optical fibers, with hole sizes and settings adjusted for fiber diameter .
- o Inspection and Testing: After stripping, fibers are often subjected to a 45-degree bend test to detect nicks or micro-cracks that could compromise performance .

Safety and Maintenance

- o Personal Protection: Always wear safety glasses and handle fibers carefully to avoid injury from sharp glass fragments .



Fiber Optic Cable Stripping Requirements

- o Tool Maintenance: Replace dull blades promptly; worn tools can stress or damage fibers, leading to connector failure .
- o Chemical and Fire Safety: Follow manufacturer instructions when using solvents or heat, as some coatings are flammable or irritant .

Best Practices

- o Strip only the required length for the connector or termination.
- o Ensure cuts are straight and clean, avoiding jagged edges.
- o Use automated tools where possible for repeatability and consistency.
- o Verify stripped fibers visually or with bend tests before connectorization. By adhering to these standards and techniques, fiber optic cable assemblies maintain signal integrity, reliability, and compliance with industry requirements.

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

Purpose This Standard sets forth termination and cabling requirements for optical fiber and cable assemblies.

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

Whether it is indoor or outdoor fiber-optic (FO) cable, using a step-by-step approach reduces the chance of fiber damage while

Learn the different fiber optic cable installation requirements with our expert guide to ensure

Fiber optic cables come in various designs, each with its own unique construction and stripping requirements. Understanding the

Good fiber optic stripping techniques in your cable assembly process are crucial. See best practices for how to strip

2.3 Cable Handling Precautions CAUTION: Fiber optic cable is sensitive to excessive pulling, bending and crushing forces. Consult

Each kit contains pin and socket polishing tools, jacket strippers, shears, scribes--literally all the tools and supplies required for

An Optical Fiber Stripper is arguably the most fundamental hand tool for any technician

Optical cable specification development includes design and quality testing. FOC's impact reaches the network

Fiber strippers are precision tools that remove a coating from a fiber before connectorization or splicing. There are mechanical,

Learn the essential steps and tools for preparing fiber optic cables for connectors or

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

By following these guidelines and utilizing the appropriate tools, you can ensure safe and efficient stripping, leading to reliable and

Fiber optic cables may contain multimode fibers, singlemode fibers or a combination of the two, in which case it is referred to as a

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