

Use fiber stripping pliers when fusing fibers



Overview

Fiber Splicing & Winding Tutorial – Step-by-Step Guide Learn fiber splicing and winding in 5 steps with pro tips on stripping, cleaving, fusion, and sleeve.

Key Takeaways

Fiber stripping pliers are essential for safely removing the protective coating from optical fibers to prepare them for high-quality fusion splicing.

Purpose of Fiber Stripping

Before fusion splicing, the optical fiber must be stripped down to the bare glass to ensure a clean, low-loss splice. The coating and cladding layers must be removed without nicking or scratching the fragile glass core, as any damage can increase splice loss or cause fiber breakage during splicing ().

Types of Fiber Strippers

Fiber strippers come in several forms: Mechanical handheld strippers: Use precision blades to shave off the coating. They are fast and inexpensive but require careful handling to avoid scratching the fiber (). Thermal strippers: Apply heat to soften the coating before removal, reducing the risk of physical damage.

These are often used for multi-fiber splicing (). Chemical strippers: Use solvents or acids to soften the coating, which can then be wiped away. Care must be taken to avoid harming the glass or operator ().



Arc or plasma strippers: Remove the coating using a high-temperature arc, similar to the fusion process itself (). For standard single-mode fibers with a 125 μm cladding, multi-hole strippers calibrated to the fiber diameter are recommended to prevent microfractures ().

Stripping Technique

Measure the strip length: Typically 10–20 mm for single-mode fibers, depending on the fusion splicer specifications (). Align the stripper: Hold the fiber perpendicular to the stripper jaws, with a slight inward angle on the upper part. Apply controlled pressure: Gently push the fiber along the axis to remove the coating without bending or twisting the glass ().

Clean the bare fiber: Remove any residue using a lint-free cloth with high-purity alcohol ().

Safety Considerations

Wear high-rated safety goggles and cut-resistant gloves to protect against glass shards (). Dispose of fiber waste immediately in a dedicated container or vacuum device. Avoid touching the bare fiber end face to prevent contamination or damage ().

Summary

Using fiber stripping pliers correctly is critical for preparing fibers for fusion splicing. Selecting the appropriate type of stripper, applying controlled pressure, and following safety protocols ensures a clean, undamaged fiber end, which directly affects splice quality and longevity ().

Article Content

Fiber Splicing & Winding Tutorial – Step-by-Step Guide

Learn fiber splicing and winding in 5 steps with pro tips on stripping, cleaving, fusion, and sleeve protection. Ensure low-loss, reliable fiber connections.

Fusion Splicing Basics (Part 2): Strippers and Cleavers

A fiber stripper is a precision tool used to remove the protective polymer fiber coatings from an optical fiber. This process exposes the bare glass without scratching or nicking it, which is required for tasks

Fusion-splice basics

The process of stripping fibers, for example, can create microscopic particles. This means it's necessary to clean the cleaver, splicer, and other tools so they don't contaminate the fiber and so

Fusion Splicing Fiber Optics

Strip the primary buffer from the fiber using fiber strippers not ordinary wire strippers. Do this a small section at a time to prevent the fiber breaking, about 10mm (3/8 in) on each cut is fine until you get

Tutorial Passive Fiber Optics, Part 13: Fiber Accessories and Tools

Tutorial on passive fiber optics. Part 13 discusses fiber accessories and tools for stripping, cleaving and splicing of fibers, fiber connectors, adapters and inspection equipment.

Don't Miss this Super-Detailed Tutorial on Fiber Splicing ...

Preparing the fiber end face includes stripping, cleaning, and cutting. The necessary condition for fusion splicing is a qualified fiber end face, and its quality directly affects the...

Preparing your Fiber Optic Cable for Connectors or Splices

Learn the essential steps and tools for preparing fiber optic cables for connectors or splices. Master mechanical and fusion splicing techniques to

Fiber and Cable Stripper – Types, Uses & Guide

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

The Complete Step-by-Step Guide to Fiber Optic Splicing

In this guide, we cover the basics of fiber optic splicing, how to perform splicing using two different methods, and finally some best practices to perform good fiber splicing.

Fusion Splicing Basics (Part 2): Strippers and Cleavers

Thermal stripping can be used with single-fiber splicing but is typically used with multi-fiber splicing since it simultaneously strips up to twelve fibers.

Mechanical vs. Fusion Splicing: Which Is Right for You?

Step 1: Fiber stripping: You must first remove or peel off the protective polymer coating around the fiber optic cable before you can begin fusing it. A mechanical stripping device, similar to

The FOA Reference For Fiber Optics

The holder is inserted in a special stripper that uses heat to make stripping easier. After stripping, the holder is placed in a special cleaver that will cleave all 12 fibers at once. The fixture with all the

The Ultimate Guide to Splicing of Fiber: Techniques and Tips

Fiber optic splicing necessitates vital tools such as a fusion splicer, mechanical splice unit, fiber cleaver, and fiber stripper. These instruments play an integral role in preparing the fibers by

Fusion Splicing of Fibers – electric discharge, fusion

Fusion splicing of fibers is a technique of making low-loss fiber joints by fusing fiber endfaces together. It is widely used in fiber optics.

Amazon : Fiber Optic Tools

Signal fire Fiber Optic Stripper, 9 in 1 Fiber Optic Stripper Tool, Wire Cutters Pliers Electrician Tools for Wire Stripping Cutting & Cleaning, Fiber Cable Stripping Tool for Technicians 50+ bought in past

Fusion splicing

Fusion splicing is the act of joining two optical fibers end-to-end. The goal is to fuse the two fibers together in such a way that light passing through the fibers is not scattered or reflected back by the

Fiber U Basic Skills Lab Workbook-tools

Fiber U Basic Skills Workbook Tools These are typical fiber optic technician's tools recommended for the hands-on exercises in the workbook. In the following Workbook sections, we'll show you how to use

VHO-Splice-fusion

Inserting Fibers In Splicer Strip fibers and cleave first Raise splicer hood located in the middle of the top of the unit Release fiber clamps by pushing the activators toward the rear of the unit.

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