

How to strip the coating from an optical cable

Article Overview

Optical fiber coatings can be removed using mechanical, thermal, chemical, or specialized non-contact methods, with precision tools designed to protect the glass core.

Mechanical Stripping

Mechanical stripping is the most common method and involves precision fiber strippers with sharp-edged slots or notches sized for specific fiber diameters. The fiber is held in the slot, and the jaws are squeezed to cut through the coating, which is then slid off the fiber. This method is suitable for removing acrylate, silicone, or polyimide coatings and is widely used for standard telecommunication fibers with 125 um cladding and 250 um coating diameters, as well as for plastic optical fibers and tight-buffered fibers (e.g., 900 um) .

Thermal Stripping

Thermal stripping uses controlled heat to soften or burn off the polymer coating. This method is particularly useful for coatings that are difficult to remove mechanically or for specialty fibers with thin coatings. Thermal strippers must be carefully calibrated to avoid overheating, which can damage the fiber or induce microfractures .

Chemical Stripping

Chemical methods involve solvents that dissolve the polymer coating. This approach is often used for polyimide or other chemically resistant coatings. After chemical stripping, the fiber must be thoroughly cleaned with lint-free wipes and high-purity alcohol to remove residues .

Non-Contact and Advanced Methods

Some advanced techniques include plasma or laser-based stripping, which remove coatings without direct contact. These methods are used in high-precision applications, such as creating fiber Bragg gratings or processing specialty fibers, where even minor scratches can compromise performance .

Best Practices

- o Progressive stripping: For multi-layer cables, strip each layer individually--outer jacket, aramid yarn, buffer coating--rather than attempting to remove all layers at once .
- o Proper tool selection: Use strippers matched to the fiber's cladding and coating diameters to avoid nicks or scratches .

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- o Maintenance: Keep cutting edges sharp and clean to ensure consistent stripping quality .
- o Handling: Use fiber grippers or textured rubber holders to secure the fiber during stripping, preventing microfractures . By following these methods and precautions, optical fiber coatings can be removed safely and efficiently, ensuring the integrity of the glass core for splicing, connectorization, or other processing.

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

Fiber Optics knowledge Recommended How to Strip and Clean Fiber-Optic Cable? To strip and clean

Corning Cable Systems reserves the right to improve, enhance, and modify the features and specifications of Corning Cable

Laser stripping of optical fiber is the fast and accurate way to remove acrylate and polyimide coatings, in order to access the fiber for

Splicing and termination procedures require the removal of a section of the optical fiber's protective coating. It is crucial that the

Also known as optical fiber cable strippers, they hold cable within a slot, squeeze their jaws to press through the

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

Adjustable and Specialized Optical Fiber Stripper Models While most applications use

Lesson 3: Fiber Optic Cable And Fiber Preparation Objectives: From this lesson you should learn: How to

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

Fiber-Life offers a variety of fiber strippers, each designed to play a crucial role in the fiber optic cable splicing process. A high-quality

This study focuses on finding the cladding and coating stripping methods for four recent specialty optical fibers, namely: hard polymer

Without question, good stripping techniques in your fiber optic cable assembly process are imperative. What happens if you damage

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Precise fiber optic stripping matters. See trueCABLE's 3-hole Fiber Optic Stripper features, safe use tips, and

Corning Optical Communications" testing indicates the agents listed above will not adversely affect coating performance or fiber strip

- Use a fibre optic cable stripper to remove the protective coating from the end of the cable.
- Follow manufacturer

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