Fiber Optic Cable Outer Sheath Fiber Optic Cable Equipment Brands



Overview

Explore 9 top manufacturers and suppliers of Fiber Optic Sheathing in our comprehensive photonics buyers'' guide.

Key Takeaways

Fiber optic cable outer sheaths protect the fibers from mechanical, environmental, and chemical damage, while leading equipment brands like Nextrom, Rosendahl, Maillefer, and Corning provide advanced machinery for cable production.

Fiber Optic Cable Outer Sheath

The outer sheath of a fiber optic cable, also called the jacket, is the final protective layer surrounding the optical fibers, cladding, buffering, and strength members. Its primary functions are to: Protect fibers from mechanical stress such as bending, crushing, or impact. Provide environmental resistance against moisture, UV radiation, chemicals, and temperature extremes.

Ensure installation safety and compliance with fire-retardant or low-smoke requirements for indoor or outdoor use. Common materials for outer sheaths include polyethylene (PE), polyvinyl chloride (PVC), nylon, and low-smoke zero halogen (LSZH) compounds. Some cables also use armored sheathing with metal spirals (aluminum, galvanized steel, or stainless steel) for additional mechanical protection, especially in direct-buried or aerial applications.

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Sheathing can be customized for indoor, outdoor, aerial, duct, or microduct installations, with flame-retardant or temperature-stable properties depending on the application.

Fiber Optic Cable Equipment Brands

Several leading brands provide fiber optic cable production equipment, covering the entire manufacturing process from fiber drawing to finished cable: Nextrom / Rosendahl Nextrom: Offers complete solutions for optical glass making, fiber drawing, coating, ribbon making, proof testing, and cable production. Their machinery includes high-resolution monitoring systems for quality control and supports high-density fiber production. Maillefer: Specializes in extrusion technology for sheathing, providing versatile raw material handling, high centricity, and stable mechanical properties.

Their equipment ensures material efficiency and durability of the final cable. GFCableMachine: Provides ADSS fiber production line equipment, including fiber coloring, coating, stranding, cabling, and sheathing machines. These lines are designed for overhead power line installations and ensure high-quality, durable cables.

Corning: While primarily a cable manufacturer, Corning also offers advanced fiber optic cable solutions with various sheath types, including LSZH, plenum, and armored designs, suitable for indoor and outdoor applications.

Summary

The outer sheath is critical for protecting fiber optic cables in diverse environments, and selecting the right material depends on installation conditions and regulatory requirements. Leading equipment brands like Nextrom, Rosendahl, Maillefer, and GFCableMachine provide state-of-the-art machinery for producing high-quality fiber optic cables, ensuring precision, durability, and efficiency in manufacturing.

Article Content

Fiber Optic Sheathing | Suppliers

Explore 9 top manufacturers and suppliers of Fiber Optic Sheathing in our comprehensive photonics buyers'' guide.

fiber optic cable production lines and equipment

With it, you can manufacture fiber optic cables for a wide range of indoor and outdoor applications with a flexible layout. Our stranding technology supports jelly-filled as well as complete dry cable designs,

Fiber Optic Cables | Corning

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Fiber optic cables for outdoor applications are engineered to withstand the more demanding conditions seen outside, from environmental extremes to mechanical forces.

High-Performance Optical Fiber Cables for Next-Gen | STL

Designed for high-performance FTTH (Fiber-to-the-Home) solutions, featuring single mode/bend-sensitive fibers protected by two strength members and an outer

Fiber Optic Cable Sheathing

The sheathing process is where you apply the final touch to your loose tube fiber optic cable. Mechanical properties for different cable types are set with armoring and strength members.

Cable Sheath Types Explained: LSZH vs HDPE vs LDPE

Understand the differences between LSZH, HDPE, and LDPE cable sheaths and where each is used in FTTH.

The Importance And Selection Of Outer Sheath

Why is the outer sheath of fiber optic cables important? What are the materials available? Fiber optic cables are generally composed of fiber optic

How To Choose Fiber Cable Outer Sheath Materials?

Choosing the appropriate outer sheath material for fiber optic cables is crucial for ensuring the cable''s durability, protection, and performance under specific environmental conditions.

Optical Fiber Cable Testing Equipment | Torontech

Optical Fibre Cable Testing Equipment (OFC Testers) Torontech is a global leader in providing a full range of Optical Fibre Cable Testing Machines (OFC Testers), engineered with cutting-edge

Cable Jacket Material: How to Choose

Cable Jacket Material Comparison Both network cables and fiber optic cables have different cable jackets to choose from. Each type of sheath has different advantages. Below, we will

109 Fiber Optic Cable Manufacturers in 2026

This section provides an overview for fiber optic cables as well as their applications and principles. Also, please take a look at the list of 109 fiber optic cable manufacturers and their company rankings.

Selection of the Correct Optical Cable Outer Jacket for the Application

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Introduction This Cable Jacket Selection Note is intended to provide the reader with an organized selection methodology when selecting the optimum optical cable for a specific application. Sheath

Fiber Optic Cables | Corning

With 2 billion kilometers of fiber optic cables installed around the globe, Corning continues to lead the industry in product quality and innovation.

Fiber Optic Cable Slitter, Cable Sheath Cutter

Fiber Cable Slitters Choose from Specialized Products'' selection of fiber cable slitters and cable stripping tools from the top brands in the business - Jonard Tools, Ripley Miller, Corning, Eclipse and

Importance of material and fire rating of outer sheath of optical fiber ...

Optical fiber cable is generally composed of optical fiber core, cladding, coating, reinforcing element and outer sheath. As the protective layer of the cable, the outer sheath has the

Industrial Fiber Optic Cables, LSZH Single-Jacket Cable, 12-288 Fibers ...

Corning Cable Systems LSZHTM Industrial Fiber Optic Cables are designed for industrial building backbones and harsh environments atypical of traditional datacom systems. Based on proven

Fiber Optic Cable Sheathing Machine Cable Sheath Equipment

1, ADSS fiber production line Equipment application : A,the cable machinery is Suitable for optical cable outer sheath and core strengthening comprehensive production, can also be used for inner

28 Selection_of_the_Correct_Optical_Cable

Introduction This Cable Jacket Selection Note is intended to provide the reader with an organized selection methodology when selecting the optimum optical cable for a specific application. Sheath

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