

Standard rubber and plastic embedded parts for cables and optical fibers



AI Overview

Rubber and plastic components in cables and optical fibers include ferrules, connector housings, cable jackets, grommets, and strain reliefs, often reinforced with materials like para-aramid yarns for durability and alignment.

Key Components

Ferrules: Ferrules are critical parts of fiber optic connectors that hold and align the fiber ends. They are typically made from plastic, ceramic, stainless steel, or tungsten carbide. The fiber is embedded in the ferrule using adhesive or crimping, and the ferrule end is polished to ensure a smooth optical interface for precise light transmission (Globalspec) .

Connector Housings: The connector body or housing, usually made of plastic or metal, encases the ferrule and provides structural support. It includes assemblies to secure the fiber and interfaces with coupling devices to maintain alignment during connection (Globalspec) .

Cable Jackets and Sheaths: The outer layers of cables are often made from rubber or plastic to provide insulation, mechanical protection, and environmental resistance. These jackets protect the embedded fibers from abrasion, moisture, and chemical exposure (TE Connectivity) .

Grommets and Strain Reliefs: Rubber or plastic grommets and strain reliefs are embedded at cable entry points to prevent bending, kinking, or stress on the fibers, ensuring long-term reliability and maintaining optical performance (Globalspec) .

Reinforcement Materials: High-performance cables often include para-aramid yarns (e.g., Kevlar) embedded within the jacket or surrounding the fibers. These fibers provide tensile strength, dimensional stability, thermal and chemical resistance, an...

Article Content

Jun 24, 2026

Understanding and Selecting Optical Fibre and Cable

In this document, the relationship between the cable features, followed standards, test parameters, and acceptance criteria are

Feb 12, 2026

Fibre Optic Cable Management

Material choice is large in our range, with components made from plastic, rubber and nylon, designed in different mounting options to

Oct 07, 2025

Handbook Optical fibres, cables and systems

I trust that this manual will be a useful guide for those looking to take advantage of optical cables and systems and I welcome

Jun 09, 2026

A Short Guide to Plastic Optical Fiber

Plastic optical fiber is an option for applications as diverse as residential wiring and avionics. Here's a short guide to

Sep 23, 2025

Data Sheet

Data Sheet Cable Description The HFBR-C/R/EXXYYYZ series of plastic fiber optic cables are constructed of a single step-index

Oct 05, 2025

Molded Rubber Seals for Fiber Optic Cable

Reliable molded rubber seals for fiber optic cables. Designed for secure fit and long-term durability in communication applications.

May 28, 2026

Fiber Optic Standards & Testing Guide for Cables

Explore international standards and testing for fiber optic cables, MPO/MTP, and connectors. Understand performance, reliability,

Aug 13, 2025

Optical fiber connector

An optical fiber connector is a device used to link optical fibers, facilitating the efficient transmission of light

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The Fiber Optic Association

Other groups may have fiber optic standards also: ANSI is the governing bodies for standards in the US, NIST provides primary

Apr 07, 2026

Anatomy of a Cable – Optical Fiber

With an increased emphasis on protecting digital information, however, optical fiber has become more cost-competitive

Aug 16, 2025

Standard Fiber Connectors

Standard fiber connectors are designed to address standards of (indoor) physical contact fiber. The extruded glass or plastic optical

May 21, 2026

FRP – Cable Reinforcement Solutions | Recartelecom

FRP – Cable Reinforcement Solutions Aksh is a pioneer in manufacturing of raw materials for optical fibre cables. AKSH is globally

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ANSI/TIA-568.3-E: Optical Fiber Cabling and Components Standard

Scope: This Standard specifies performance, transmission, and test and measurement requirements for premises optical fiber cable,

Nov 07, 2025

Fiber Optic Connectors and Adapters

As a leading supplier of advanced fiber optic components, Molex has an extensive product offering that includes a full range of

Jul 03, 2026

The FOA Reference For Fiber Optics

In standards, the distinction between hybrid and composite cables has flipped several times in the history

Aug 12, 2025

Choosing Insulation & Jacketing Materials for Your Custom Cable

ABOUT JACKETING Jacketing is the nonconductive outer layer of a cable that covers and protects the conductor, primary insulation,

May 24, 2026

A Guide to the Materials used in Fiber Optic Cable Manufacturing

This guide will discuss the different types of fiber materials used to make optic cables as part of the manufacturing

Jan 13, 2026

Standards Updates for Optical Fiber: What You Need to Know

Standards Updates for Optical Fiber: What You Need to Know Industry standards for optical fiber cables, components,

Jul 03, 2026

Fiber Optic Industry Acronyms

This comprehensive reference of standardized fiber optic acronyms is a resource for understanding

Oct 13, 2025

Thermoplastic Resin Compounds for Wire & Cable

Nexeo Plastics carries plastic resins for wire and cable manufacturing, including PVC, CPE, TPE, PBT,

Dec 09, 2025

Fiber Optic & Cable Standards Guide | FiberMania

Get a complete guide to fiber optic & related products standards—from basics to advanced,

Nov 17, 2025

Overview of optical fibres standardization

2. Historic Optical fibres used in telecommunications and data transport networks are standardized internationally under the guidance

Feb 14, 2026

Optical fiber

An optical fiber, or optical fibre, is a flexible glass or plastic fiber that can transmit light from one end to the other. Such fibers are

Feb 26, 2026

Tubes and plastic tubes | WEINERT Industries AG

Protective tubes are available for various optical fiber assemblies, to protect against damage from

Feb 09, 2026

IEEE 525-2007_accepted

Fiber-optic cable installation shall meet the requirements of the National Electrical Safety Code® (NESC®) (Accredited Standards

Contact Us

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