

Rollable fiber optic ribbon cable



Overview

Rollable Ribbon High Density Optical Fiber Cable We create these Rollable Ribbons by partially bonding single 200 μm fibers or 250 μm fibers to each other.

Key Takeaways

Rollable ribbon fiber optic cable is a high-density, flexible optical cable that allows multiple fibers to be spliced efficiently while saving space and improving installation flexibility.

Overview

Rollable ribbon fiber optic cables are designed to increase fiber density without enlarging the cable diameter. Unlike traditional flat ribbon cables, the fibers in rollable ribbons are partially bonded at intermittent points, allowing the ribbon to bend, compress, and roll like individual fibers while still supporting mass fusion splicing. This design makes them ideal for high-density environments, such as data centers, FTTx networks, and micro-duct installations.

Key Features

High Fiber Count: Rollable ribbons can support fiber counts of 144, 288, 432, 864, 1,728, 3,456, or even 6,912 fibers in a single cable.

Space-



Saving Design: The flexible, compressible structure reduces space requirements in ducts, trays, and closures, enabling more fibers in smaller pathways. **Mass Fusion Splicing:** Supports splicing multiple fibers simultaneously, reducing labor time by 40–60% compared to individual fiber splicing. **Enhanced Bend Performance:** The rollable structure minimizes macrobending and microbending losses, maintaining stable transmission in tight or complex routing environments.

Gel-

Free Construction: Many rollable ribbon cables are gel-free, which simplifies preparation for splicing and reduces installation time.

Advantages

Higher Transmission Capacity: Doubling fiber density allows for increased network capacity without expanding conduit size. **Flexible Routing:** Can be rolled and routed like individual fibers, making it easier to fit into small closures and splice trays. **Cost Efficiency:** Reduces installation labor and material costs due to smaller cable diameters and faster splicing.

Future-

Proofing: Supports scalable upgrades for growing bandwidth demands in data centers and telecom networks.

Applications

Rollable ribbon fiber optic cables are widely used in: **Data Centers:** High-density cabling for server racks and cross-connects.

FT

Tx Networks: Fiber-to-the-home or fiber-to-the-building deployments.

Micro-

Duct Installations: Compact pathways where space is limited. **Backbone and Distribution Networks:** High-capacity links in indoor and outdoor environments. In summary, rollable ribbon fiber optic cables combine high fiber density, flexibility, and efficient splicing, making them a preferred choice for modern optical networks where space, scalability, and installation efficiency are critical.

Article Content

Rollable Ribbon High Density Optical Fiber Cable

We create these Rollable Ribbons by partially bonding single 200 μm fibers or 250 μm fibers to each other to form a flexible cable. This design allows for a highly efficient ribbon splicing

Rollable Ribbon | High Density Fiber Optic Cable -

We create these Rollable Ribbons by partially bonding single 250 μm fibers to each other to form a bendable high density fiber cable. This design allows for a highly

Rollable Ribbon High Density Optical Fiber Cable -

Space saving: High density optical fiber cables provide maximum capacity in limited space. Lightera has achieved the world's first installation of the 6912F cable into

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SWCC has been developing various optical fiber cables for telecommunication carriers for many years, and have been providing ultra-small diameter and high

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Everything buyers need to know about rollable ribbon fiber cable (spider web ribbon): specs, fiber counts, splicing advantages, applications, and how to source the right cable for high

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An authoritative 2026 guide to the top 15 fiber optic manufacturers — from Corning and Prysmian to Fujikura and LS Cable — with headquarters, tech focus, and flagship products.

Jonard RFS-100 Ribbon Fiber Separator for Rollable or Spyder Ribbon Fiber

Designed for use on Rollable or Spyder type ribbon fiber optic cables, this tool is perfect for separating the matrix of fibers in ribbon fiber optic cables quickly and easily. This tool also features the

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Furukawa Electric's Lightera begins mass production of the world's highest-class 13,824-core ultra-high-density fiber optic cable. Learn how this

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AccuRibbon® Optical Cables: Original ribbon design optimized for mass fusion splicing
Rollable Ribbon Technology: Combines ribbon density with loose tube flexibility

Markertek: Video Cameras, Intercom, Wireless Mics, Cable, Connector

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The FOA Reference For Fiber Optics

As fiber optic communications systems are expanded to accommodate rapidly growing communications needs, there has been a demand for higher density

Ribbon Fiber Optic Cable and Splicing: Key Points and

Ribbon fiber optic cables offer high-density connectivity with efficient mass fusion splicing. Learn about their advantages, installation challenges and

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10 In a rollable ribbon fiber cable, the optical fibers are attached intermittently to form a loose web. This configuration makes the ribbon more flexible—allowing

Ultra-High-Fiber-Count Optical Cable for Data Center Applications

This paper describes a newly designed ultra-high-fiber-count (UHFC) optical fiber cable for data center applications. The UHFC cable employs Freeform Ribbon, in which fibers meet and split out in turns in

What is Ribbon Fiber Optic Cable? A Guide to Its Benefits

Explore what ribbon fiber optic cable is. Our guide covers its flat structure, types, and key benefits like mass fusion splicing and space-saving design for high-density data centers.

10 Best Fiber Optic Manufacturers for 2026

Discover the best fiber optic manufacturers globally, offering cutting-edge multimode and single mode fiber solutions. See who tops the list for quality and innovation.

Rollable Ribbon Cable

American Tech Supply offers a complete line of rollable ribbon fiber optic cables engineered to meet today's growing bandwidth and density demands. Our cables are available in both indoor and

FlexRibbon® Technology | Prysmian

The result is a ribbon fiber optic cable that can be rolled, folded, or routed in tight spaces without sacrificing performance, offering superior handling, higher fiber

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