

Armored and ordinary optical cable models



Article Overview

Armored optical cables provide enhanced mechanical protection and rodent resistance, while ordinary (unarmored) cables are lighter, more flexible, and suitable for protected environments.

Construction Differences

Armored Optical Cables: These cables include a protective armor layer, typically made of corrugated metallic tape, tightly wound steel wires, or dielectric fibers, placed under the outer jacket or between dual jackets for extra protection. The armor increases crush resistance, impact strength, and rodent protection, making them ideal for direct burial, outdoor, or high-risk environments. Some armored cables feature double jackets and double steel tape for maximum durability in rodent-infested or harsh conditions.

Ordinary (Unarmored) Optical Cables: These consist of the optical fiber core, a protective buffer, strength members (like aramid yarn), and an outer jacket, usually PVC or LSZH. They are lighter, more flexible, and easier to install, making them suitable for indoor, conduit, or aerial pole line applications where physical threats are minimal.

Common Models and Applications

- **Singlemode Optical Fiber (OS2):** Small core ($\sim 8.3 \mu\text{m}$), long-distance transmission up to 50 km, used in data centers, enterprise networks, and FTTH.
- **Multimode Optical Fiber (OM4):** Larger core ($50\text{--}62.5 \mu\text{m}$), shorter distances (550 m–2 km), used in LANs, data centers, and short-distance communications

Article Content

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

10 Types of Fiber Optic Cable Explained: Selection Guide (2026)

Explore the top 10 fiber optic cable types for 400G/800G networks. From ADSS to MPO, learn technical specs, applications, and how

Optical Fiber and Cables | Springer Nature Link

This chapter gives an overview and introduces application scenarios for optical fibers and cables in optical communications. The use

Application Notes

Except for the most severe Outside Plant conditions, a single jacket, either metallic or dielectric armored cable will likely provide

What Is Armored Fiber Cable?

As is known, armored fiber cable can provide extra protection for fiber optic cable without sacrificing flexibility or functionality within

Difference Of Armored Cable and Unarmored Cable

As demand for network configurations continues to grow, it is critical for network administrators and IT professionals to

What is armored optical cable? | Sopto

Outdoor armored optical cable,outdoor fiber optic cable pays more attention to tensile resistance, and uses steel tape and steel wire,

28 Selection_of_the_Correct_Optical_Cable

Jacket materials, single jacket versus dual jacket, armored versus unarmored, and metallic versus dielectric armoring. This Cable

The Structure and Characteristics Of Armored Fiber Optic Cable

Armored optical cable is an optical cable with a protective "armor" (stainless steel armor tube) wrapped around the

Fiber Optic Cable

Armored, burial, and ruggedized designs are suited to a host of industrial environments. For each product design, items for OM1,

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://gmarkconstruction.co.za>

Email: sales@gmarkconstruction.co.za

Phone: +31-6-15-38-72-94

Address: Herengracht 456, 1017 BS Amsterdam, Netherlands

This document is for informational purposes only. Specifications subject to change without notice.

