

What is a double-armored optical cable



Overview

Double Armored Double Sheath Optical Cable is a high-strength fiber optic cable designed for harsh environments.

Key Takeaways

A double-armored optical cable is a fiber optic cable reinforced with two layers of protective armor, designed for maximum mechanical protection in harsh environments.

A double-armored optical cable typically consists of the following layers:

- **Optical Fibers:** Single-mode or multi-mode fibers arranged in loose tubes or tight-buffered bundles.
- **Strength Members:** Materials like aramid yarns or fiberglass rods provide tensile strength.
- **First Armor Layer:** Often corrugated steel tape (STA) or steel wires (SWA) that protect against crushing, impact, and rodent damage.
- **Second Armor Layer:** An additional steel tape or wire layer for enhanced mechanical protection, commonly used in direct burial, submarine, or mining applications .
- **Outer Jacket:** Made of polyethylene (PE), PVC, or LSZH material to resist environmental factors like moisture, UV, and abrasion .

Purpose and Advantages

Double-armored cables are engineered to withstand extreme conditions:

- **Crush and Impact Resistance:** The dual armor layers provide superior protection against heavy loads, construction activity, or accidental impacts .
- **Rodent Protection:** Prevents damage from rats, termites, and other pests.
- **Environmental Durability:** The combination of armor and outer jackets ensures resistance to moisture, temperature fluctuations, and chemical exposure .
- **Longevity:** Designed for long-term reliability, often 20–30 years in harsh outdoor or underground environments .

Applications

Double-armored optical cables are ideal for:

- **Direct Burial:** Underground installations where mechanical stress and rodent activity are concerns.
- **Industrial and Mining Sites:** Environments with high mechanical hazards.
- **Submarine or Harsh Outdoor Routes:** Where extreme pressure, water ingress, or abrasion is possible .

Key Considerations

While double-armored cables offer maximum protection, they are heavier, stiffer, and more labor-intensive to install and splice compared to single-armored or non-armored cables . The choice of cable depends on the installation environment, risk of mechanical damage, and maintenance expectations. In summary, a double-armored optical cable combines two layers of metallic armor with a robust outer jacket to provide the highest level of mechanical and environmental protection for fiber optic networks in demanding conditions .

Article Content

Armored vs Double Sheath Fiber Optic Cable: What Is the ...

Armored cable is primarily about resistance to crush, impact, and rodent damage. Double sheath cable is primarily

Double Armored Double Sheath Optical Cable

Double Armored Double Sheath Optical Cable is a high-strength fiber optic cable designed for harsh environments. Featuring dual

28 Selection_of_the_Correct_Optical_Cable

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

Double Armored Fiber Optic Cable Cost Comparison

What Is Double Armored Fiber Optic Cable? Double armored fiber optic cable typically refers to designs such as GYTA53 or

Steel Wire Steel Tape Double Armored Fiber Optic Cable

This double armored fiber optic cable is a stranded loose tube cable, surrounded with corrugated steel tape, steel wire armoring and

Double Armored Fiber Optic Cable

Find Double Armored Fiber Optic Cable related suppliers, manufacturers, products and specifications on GlobalSpec - a trusted

PGYS53 – Double Jacket, Double Armored Fiber Optic Cable

Priority Wire & Cable supplies wire & cable from the largest stock in the U.S. and offers same day shipping. This includes Industrial,

Double Armoured Cable for Harsh Environment

Double Armoured Cable for Harsh Environment Electro-Optic Tow Cables A range of dynamic, steel-armored, electrical, and optical

Armored Fiber Optic Cable Guide

Armored fiber optic cables are specialized cables featuring enhanced protective layers or metal sheaths and offer robust

Loose Tube Fiber Optic Double Jacket Double Armored

Product Catalog Contact All Categories > Fiber Optic Cables > Loose Tube Fiber Optic Cable > Loose Tube Fiber Optic Double

Armored vs Unarmored Fiber Optic Cable: Your Complete Decision

Executive Summary: Both armored and unarmored fiber optic cables transmit light signals at near-speed-of-light

Armored Cable | Plenum/Riser Fiber Cable

Leviton offers armored fiber optic cable in a wide variety of optical fiber constructions. Our unique spiral wrap armoring process

Armored vs Double Sheath Fiber Optic Cable: What Is the Difference?

Learn the difference between armored and double sheath fiber optic cable. Compare structure, protection level, cost,

What Is Armored Fiber Cable? Armoured Cable and Armored Cable

Armored fiber optic cable can be divided into two types according to the metal tube: interlock armored fiber cable and

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,

Armoured Fiber Optic Cable: An In-depth 2025 Buying Guide

Figure no 1 A Guide to Armoured Fiber Optic cables 1) What is an Armoured Fiber Optic cable? "An armoured fiber

What Is Armored Fiber Optic Cable? Types, Structure & Uses

An armored fiber optic cable is a fiber optic cable that incorporates a metallic protective layer—such as steel tape,

Armored Fiber Cable Guide

Explore QSFPTek's comprehensive guide to armored fiber optic cables, including their uses, types, applications, and

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

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

Technical inquiry: <https://thegalleryselfcatering.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

