

What are the flame retardant classifications for optical fiber communication cables



Summary of Content

Optical fiber cables are classified by flame retardancy into Plenum (OFNP), Riser (OFNR), and General-Purpose (OFNG) ratings, with additional halogen-free LSZH options for low-smoke environments.

Key Classifications

1. Plenum-Rated Cables (OFNP / OFCP)

- Designed for air-handling spaces such as ceiling voids and air ducts.
- Offer the highest fire resistance, minimal flame propagation, and low smoke emission.
- Must comply with NEC NFPA 262 vertical flame tests in North America.
- Suitable for critical installations where fire safety and smoke control are paramount

2. Riser-Rated Cables (OFNR / OFCR)

- Intended for vertical shafts between floors in buildings.
- Moderate flame resistance; prevents fire from traveling between floors.
- Tested according to NEC NFPA 255 / UL 1666 standards.
- Commonly used in backbone installations where plenum rating is not required

3. General-Purpose Cables (OFNG / OFCG)

Article Content

Fiber Cable Fire Ratings: Lszh, Pvc And Flame

A cable claiming “halogen-free” should reference IEC 60754 test results or equivalent. Flame-retardant

Choosing Fiber Cable Protection to Meet Fire Regulations

Advice on picking the best fiber cable protection against fire in the United States and Europe, balancing spread of fire against smoke

3 Fiber Optic Cable Fire Rating – OFNP, OFNR And OFN

According to the UL standard, the types of optical fiber cable are specified into the following 4 categories. OFNP

High Voltage Flame Retardant Optical Cable-YOFC | Smart Link

Products High Voltage Flame Retardant Optical Cable High voltage cables require transmission control cables to have good

Investigation of combustion, smoke, and toxicity characteristics of ...

The combustion, smoke emission, and toxic gas emission characteristics of four types of flame-retardant cables and

Understanding Fire Ratings and Jacket Options for

Optical Fiber Nonconductive Plenum (OFNP) and Optical Fiber Nonconductive Riser

Fiber Optic Cable Fire Ratings Explained

Engineering explanation of fiber optic cable fire ratings, flame classification systems, and installation environment

Functional, safe and effective optical communication cabling

HUBER+SUHNER has in-depth expertise to design and manufacture fiber optic cables and perform fire tests to ensure

Fireproof cable flame retardant classification and related

Fire-rated cable has been a very popular product type in the cable industry, third-party

Indoor Fiber Optic Cables | Optical Communications | Corning

Corning manufactures a variety of indoor fiber optic cables that are used in spaces that require a flame retardant jacket. These

3 Fiber Optic Cable Fire Rating

The fire rating of fiber optic cable can be specified into 3 types, OFNP, OFNR and OFN.

Fiber Optic Cable Jackets & Fire Ratings Guide

In the National Electrical Code (NEC), fiber optic cables are categorized into various fire ratings, including

What is a Flame Retardant cable and Fire Resistant cable

When to use Flame Retardant and when Fire Resistant cables, what the differences are and how to do the right choice for any

Fiber Cable Fire Ratings: Lszh, Pvc And Flame-Retardant Options ...

Plenum-rated cables are tested to stringent plenum standards (NFPA-262 / former UL-910) that measure flame spread and smoke

Fiber Optic Cable Materials & Flame-Retardancy Explained | PVC, PE ...

Learn the differences between PVC, PE, and LSZH fiber optic cable materials, halogen vs. halogen-free properties,

Classification and combustion test standards for flame-retardant cables ...

That's where flame-retardant cables come into play—they're specifically engineered to stop fire in its tracks. But here's

Fiber Optic Cables | Corning

Indoor/Outdoor fiber optic cables are flame-retardant (FR) cables that are designed to meet both the rigorous environment of the

OFNP OFNR and LSZH Cables: What are they and

According to NEC (National Electrical Code), the flame-retardant grades of optical fiber

Fire-Resistant Optic Cable

Fire-Resistant Optical Cables are specially designed to maintain data transmission integrity even in the event of a fire. Constructed

Fiber Optic Cable: Jacket & Fire Rating

This article examines fiber optic cable jackets, materials like LSZH, and fire ratings such as plenum and riser. It defines

Flame-Retardant Cable vs. Fire-Rated/Resistive Cable

A flame-retardant cable is designed only to restrict the spread of a fire by inhibiting combustion. Fire-resistive cables maintain circuit

Types and characteristics of flame-retardant optical cables

The basic material of the low-halogen low-smoke flame-retardant optical cable is polyvinyl chloride, and it is

What Do The Flame Retardant Grades OFNP,OFNR And LSZH Of

The flame retardant grades of optical cables can be divided into three types, OFN, OFNR and OFNP. This article

Fiber Optic Indoor Cables

Corning produces flame-retardant indoor fiber optic cables for use in ducts or cable trays.

Contact Us

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