

Fire Resistance Rating Classification of Cables and Optical Fibers



Overview

In the National Electrical Code (NEC), fiber optic cables are categorized into various fire ratings, including OFNP/OFCP, OFNR/OFCR, OFNG/OFCG, and OFN/OFC. OFNP/OFCP is the highest flame-retardant rating in the NEC standards, meaning it is plenum-grade. "OF" refers to optical fiber, "N" means non-conductive, "C" means conductive, while "P", "R", and "G" stand for Plenum, Riser, and. OFNP stands for Optical Fiber Nonconductive Plenum Cable and OFCP stands for Optical Fiber Conductive Plenum Cable. These cables are approved for placement in air handling ducts and chambers without. onal during fire. As an additional note. Classification of the reaction of cables to fire according to EU Construction Products Regulation EU305/2011 (CPR) The C onstruction P roducts R egulation is intended to help minimize fires in buildings and to prevent fires.



Article Content

Oct 18, 2025

Fire Resistant Fiber Optic Cable IEC60331-25

FO331-XX-OM4-000-LZ, fire resistant mono tube cable featuring heat resistant mica tape, glass yarns and an LSZH jacket making it suitable for use in applications

May 03, 2026

Optical Fiber Cables

Optical fiber cables must comply with specific identification and marking standards, including a minimum temperature rating of 60°C (140°F). Various types of cables, such as OFNP, OFCP, OFNR, and

Jun 17, 2026

Fire-Resistant Fiber Optic Cables: Meeting EU Safety

The rigorous testing criteria ensure that fireproof fiber optics perform reliably under fire conditions. These classifications also simplify the selection process for

Feb 23, 2026

IEC 60332 Standard

IEC 60332 Cable The IEC 60332 standard for cables is a standard for the flame resistance of single cables. To assess the flame retardancy of cables,

Oct 22, 2025

Exploring Fiber Optic Cable Jackets & Fire Safety

Fiber optic cable jacket materials are diverse, including polyvinyl chloride (PVC), low smoke and non-halogen (LSZH), polyethylene (PE), etc., and

Aug 27, 2025

National Fire Protection Association Report

Cable(s) marked with the suffix “-CI” used for remote-control, signaling, power-limited, fire alarm, optical fiber, or communications systems that supply critical circuits to ensure survivability for continued

Nov 11, 2025

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

The fire rating of fiber optic cable can be specified into 3 types, which are OFNP, OFNR and OFN. Before we can talk about the flame retardant grade,

Mar 30, 2026

All About Fiber Optic Cables and Their Fire Ratings

Fiber optic cables severely reduce the risk of electrical fires in comparison to copper cables. Because they transfer information using light, they

Sep 29, 2025

Fire resistance classification of cables

On 6 March, the European Parliament took a very important step towards regulating the fire resistance of cables. A Delegated Act was concluded on the formalisation of this basic fire safety

Aug 24, 2025

Fiber Optic Cables

APPLICATION Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a design that ensures operation for more than

Mar 03, 2026

Understanding Fiber Optic Cable Jackets and Fire Ratings

Understanding fiber cable jackets and fire ratings is essential for ensuring stable data transmission and safety. We'll talk about this to help you to

Sep 02, 2025

Fiber Optic Cables

Fire resistant optical fibre cable, QFCI - code F101 NEK TS 606:2016 (available also in MUD protected version).

Oct 23, 2025

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 what comprises a cable and

Mar 18, 2026

Understanding Fire Ratings and Jacket Options for Fiber

Understanding the different fire resistance ratings, compliance with national electrical codes, distinguishing between various cable fire ratings, and

Mar 21, 2026

Fire-Resistant Fiber Optic Cables: Meeting EU Safety

The CPR classification system categorizes cables based on their fire performance, with Euroclasses such as B2ca and Cca being the most relevant for fireproof fiber

Sep 21, 2025

3 Fiber Optic Cable Fire Rating

The fire rating of fiber optic cable can be specified into 3 types, OFNP, OFNR and OFN. And there is also LSZH which is widely used, let's get to

Oct 25, 2025

Standards for fire resistant cables|fireproof cables

Caledonian fire resistant cables, branded under Fireflex, provide the following features: Fire resistance, Long-term circuit integrity in a fire minimum smoke emission, Flame retardance, Reduced

Oct 28, 2025

Exploring Fiber Optic Cable Jackets & Fire Safety

Dive into the significance of fiber optic cable jackets, learn about their materials, and understand various fire safety ratings. This comprehensive article provides clarity

Jul 23, 2025

Ethernet Cable Fire Ratings

CMP (Plenum Cable) CMP rating is the highest flame retardant cable in Ethernet cables, with extremely high flame retardancy. CMP cables can

Jan 11, 2026

Lifeline QFCI Fire Resistant Fiber Optic Cable L

Lifeline® QFCI Fire Resistant Fiber Optic Cable Survivability in a Fire for Vital Communication and Emergency Systems Regulators & Regulations National Fire Protection Agency (NFPA) The NFPA is

May 01, 2026

Fiber Optic Cable Jackets and Fire Ratings Explained

In this article, we'll explore what a fiber optic cable jacket is, the common optical fiber cable jacket materials, the classification of fiber optic cable

Jul 02, 2025

AEN071 rev 4 9-28-23 PDF_

Installation of Optical Fiber Cables and Electrical Conductors Optical fiber cable can occupy the same cable tray or raceway with conductors for electric light, power, Class 1, nonpower-limited fire alarm or

Feb 14, 2026

Cable assessment according to CPR

We are accredited to perform testing of reaction to fire performance of cables according to EN 50399, EN 60332-1-2, EN 61034-2, EN 60754-2.

Oct 23, 2025

Classification of the reaction of cables to fire according to EU ...

To enable implementation of the construction products regulation, the reaction of the cables to fire was described in DIN EN 50575 and assessed in terms of flame spread, heat development, smoke

Apr 20, 2026

Fibre optic cables for maximum fire safety

These industry leading cables combine high water resistance, 144 fibres count and high mechanical strength with maximum fire protection. Since July 1, 2017, power, control and

Apr 09, 2026

Fiber Optic Cable Fire Resistance Ratings – Fosco Connect

Four levels of fire resistance are specified for both nonconductive and conductive fiber cables. These are outlined below from most stringent to least. The ratings are hierarchical, i.e., from a fire resistance

Sep 13, 2025

Fiber Optic Cable Jackets & Fire Ratings Guide

Compare fiber optic cable jackets and fire ratings (OFNP, OFNR, LSZH). Learn which type fits your installation for safety and performance.

Oct 05, 2025

Understanding Fire Ratings and Jacket Options for Fiber

Understanding the fire ratings and jacket options for fiber optic cables is crucial for ensuring optimal performance and safety. This technical guide will

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