

Fireproof sealing of cable tray openings in vertical shafts

Article Overview

Fireproof sealing of cable tray openings in vertical shafts requires a combination of approved firestop materials, proper installation techniques, and compliance with building codes to prevent fire and smoke spread.

Key Principles

Fireproof sealing in vertical shafts aims to contain fire and smoke within a compartment, preventing the chimney effect that can rapidly spread fire through cable shafts in high-rise buildings. The effectiveness depends on both the material properties and the installation process .

Common Fireproof Materials

- Firestop Packs and Pillows: Modular, intumescent packs that expand under heat to seal gaps around cables and trays. They are suitable for retrofits and new installations .
- Firestop Mastic and Caulk: Intumescent or latex-based sealants applied around cable trays to fill small gaps and ensure airtight sealing .
- Fire-Rated Boards and Mineral Wool: Used for larger openings or as backing plates to support other firestop materials. Mineral wool provides thermal insulation and smoke sealing .
- Modular Sealing Systems: Systems like Roxtec allow flexible, high-density cable entries and can accommodate future cable additions while maintaining fire integrity

Article Content

May 26, 2026

Plan, Install & Firestop Cable Penetrations

Product Combinations Reduce Firestopping Costs: Tray openings (especially multiple tray openings) are usually a

Mar 26, 2026

Fire Stopping

Fire stopping is best defined as the sealing of any openings to prevent fire (including smoke and heat) from

Oct 25, 2025

Firestopping Requirements for Cable Trays and

For large openings, install a fire-resistant backing plate before sealing. Layout and

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A Contractor's Guide to Effective Firestopping | EC& M

Firestopping has three elements: the fire-rated walls, partitions, floors, or ceilings that have been penetrated; the cables, cable trays,

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Firsto System | CSD Sealing Systems

FIRSTO firestops are designed to seal multi-cable and cable tray penetrations of fire-rated walls and floors. FIRSTO fire stops are

Apr 07, 2026

Cable penetration seals in fire protection

Find out why cable penetration seals are essential in fire protection. We offer specialist

Sep 29, 2025

Firestop

Use this product in new construction or update your fire protection in a renovation - the optional mounting bracket opens easily

Dec 13, 2025

Types of Permissible Vertical Openings

Vertical openings need to be properly protected in order to minimize the number of occupants on other floors that are

Dec 06, 2025

Plan, Install & Firestop Cable Penetrations

In our modern world, cabling needs are no longer limited to simple two-pair telephone wiring and 12-3 Romex type cable. The cable

Mar 22, 2026

CSD Sealing Systems: Firestops

Multi-cable and Cable-tray Firestop Penetrations CSD FIRSTO® firestops are designed to seal multi-cable and cable tray

Mar 04, 2026

Fireproof pillow for cable tray penetrations

AF BAGS are intumescent and ablative fireproof pillows certified under EN 1366-3 for sealing up to EI 240 of cable tray penetrations.

Sep 23, 2025

Cable Penetration Seals | ZAPP-ZIMMERMANN GmbH

Cable penetration seal up to EI 120 for rigid walls, rigid floors and flexible walls. Through penetration

Feb 23, 2026

Promat Fire Stopping Handbook

Fields of application ed seal for walls and floors. It is designed to be used with single cables, cable bundles or combustible and non

May 18, 2026

Technical Guidelines for Cable Tray Installation and

Cable tray installation must comply with specific technical standards to ensure electrical safety, system

Oct 24, 2025

Cable Tray Penetrations: Problem Solved!

Maintaining them will be expensive and time consuming. In many areas on the west coast, there are seismic considerations when a

Jun 30, 2026

Spread of Fire or Products of Combustion. Cable Penetrations.

Electrical installations in hollow spaces, vertical shafts, and ventilation or air-handling ducts shall be made so that the possible

Feb 11, 2026

CABLE TRAY PENETRATION THROUGH FIRE RATED WALL

FIRE RATED WALL ATTACH OUTER LAYER OF BAGS TO WALL WITH FIREPROOF CALK PER SIZE OF WALL

May 23, 2026

Guide to Fire-blocking Sections (Fire Sections/Fire Partitions) of ...

The composition of fireproof walls and fire-blocking sections should use fireproof sealing materials suitable for the

Jan 10, 2026

What are the methods for fire sealing of elements within

This article considers the methods for fire sealing where wiring systems and openings are

Oct 12, 2025

Firestopping cable openings helps safeguard buildings and occupants

William Cernel, 3M Fire Protection Products Sealing or firestopping openings where cables penetrate fire-rated walls

Nov 27, 2025

Cable and pipe seals

the cable entry seals are specifically developed to be used in underground applications where fire is not an issue. the seals are

Dec 14, 2025

Cable Penetration Seals | ZAPP-ZIMMERMANN GmbH

Annular space: point contact to max. 3 ½ in. (vertical) and 8 in. (horizontal) to periphery of opening or

Nov 25, 2025

Cable penetrations seals | Wolman

Fire stopping of cable penetrations Avoid cable fires and stop them safely! KBS ® offers various solutions to effectively protect cable

Jun 04, 2026

Firestopping cable runs

Firestopping through concrete barriers, installing wall boxes and using cable trays are the most common problems in this area.

Dec 23, 2025

Fire Penetration

Fire penetration products are designed to seal gaps and voids near piping, cables, wall spaces and other elements penetrating walls

Mar 27, 2026

Fire Stopping for Cables: Protecting Cable Trays & Electrical Shafts ...

For large vertical shafts (Electrical Shafts / Risers) that run from the basement to the top floor, a special fire-rated powder compound

Contact Us

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