

How to fireproof and seal cable trays in vertical shafts



Article Overview

Fireproof cable trays in vertical shafts are sealed using a combination of fire-rated rock wool panels, intumescent sealants, fire pillows, and fire mortar to ensure airtight, fire-resistant compartmentation.

Key Materials

- **Fire Batts (Fire-Rated Rock Wool Panels):** High-density slabs cut to fit around cables, filling all gaps. Small remaining gaps are sealed with intumescent sealant, which swells under heat to maintain fire integrity .
- **Fire Pillows:** Flexible, removable bags filled with intumescent graphite, ideal for areas where cables are frequently added or removed. They can be repositioned without breaking the seal .
- **Fire Mortar:** Special fire-rated powder mixed with water and applied around cables in vertical shafts. Once dry, it behaves like concrete and contains intumescent powder that swells to seal cracks .
- **Firestop Mastic and Putty:** Used to seal smaller gaps around metal trays or conduit penetrations, ensuring complete coverage and adherence to surfaces .

Installation Process

- **Prepare the Shaft:** Ensure floor and wall finishes are complete, and shaft doors are installed. Large openings may require a fire-resistant backing plate before sealing .
- **Position Cable Trays:** Install trays and route cables according to design, leaving appropriate gaps for fireproofing materials

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Cable trays are not raceways, but they are treated as a structural component of a facility's electrical system. Cable trays are a part of

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Additionally, many modern trunking and cable tray systems are designed with built-in fire barriers or

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

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Cable penetrations and fire safety There are many different types of cables and cable penetrations that can

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

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Fire Rated Cable Coatings and Penetration Sealing

Firestop Cable Coating is a white, water based synthetic resin which is applied by airless spray, or painted onto cables & cable trays

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

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

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Cable Transits

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Vertical Cable Tray Installation

Complete vertical cable tray installation guide: materials, grounding, firestop, and GB standards compliance for

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CSD Sealing Systems: Firestops

CSD FIRSTO® firestops are designed to seal multi-cable and cable tray penetrations of fire-rated walls or floors. FIRSTO® utilizes a

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