

Fireproof sealing of parallel cable trays penetrating walls



Overview

Firestopping Requirements for Cable Trays and Where cables pass through shafts, walls, slabs, or enter electrical panels or cabinets, Cables FIRSTO firesto.

Key Takeaways

Parallel cable trays penetrating walls should be sealed using certified firestop systems, intumescent pillows, or modular fireproof packs to maintain fire resistance and prevent smoke spread.

Key Principles

- Firestop Materials Use fire-rated materials such as firestop boards, mineral wool, firestop mastic, or intumescent pillows to seal gaps around cable trays. The materials must be compatible with the wall type and rated for the required fire resistance (e.g., EI 120-240) and mechanical load .
- Installation Techniques
- For large openings, install a fire-resistant backing plate before sealing .
- Firestop packs or pillows should be placed in an orderly sequence, ensuring gaps between packs and cables do not exceed 1 cm², with a minimum packing thickness of 24 cm for larger penetrations .
- Modular systems like FIRSTO allow easy assembly around multiple cable trays and facilitate future cable additions or removals while maintaining fire protection .
- AF BAGS are intumescent pillows that can be inserted into thin walls or sandwich panels, providing up to EI 240 protection for cable diameters up to 21 mm .

- Sealing Requirements
- Ensure tight and complete sealing around all cable trays, both internally and externally, without visible cracks or voids .
- Cover plates should be square, evenly painted, and properly dimensioned to close the opening securely .
- Maintain adequate clearance between cables to prevent heat accumulation and allow airflow, especially in perforated or wire mesh trays .
- Inspection and Maintenance
- Periodically inspect seals for integrity, corrosion, or mechanical damage .
- Verify that grounding continuity is maintained and that firestop materials remain properly positioned .
- Fireproof systems should be checked according to manufacturer guidelines and local building authority regulations .
- Compliance and Certification
- Use products certified under standards such as EN 1366-3 or approved by local building authorities .
- Ensure the firestop system is suitable for the wall type, penetration size, and number of cable trays .

Recommended Products and Systems

- FIRSTO Modular Firestop System: Flexible, easy to install, supports multiple cable trays, and withstands mechanical loads .
- AF BAGS Intumescent Pillows: Certified for EI 120-240, suitable for thin walls and sandwich panels, easy to reposition for maintenance .
- Flamro Penetration Seals: Approved systems for various cable types and mixed penetrations, compliant with building authority regulations . By following these guidelines, parallel cable trays can safely penetrate walls while maintaining fire resistance, preventing smoke spread, and allowing for future modifications or maintenance.

Article Content

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

Cable transit frames and penetration sealing systems

Seal cable penetrations with our modular firestop solutions, designed to create water-, smoke- and gas-tight barriers in energy and

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

Cable Tray Penetrations: Problem Solved!

In many areas on the west coast, there are seismic considerations when a cable tray is passed through a fire wall. If a cable tray is

Fireproof pillow for cable tray penetrations

The product is certified for "small" - "medium" and "large" cable penetrations, to create a fireproof seal for cables with a diameter of

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FLAMRO® penetration sealing systems are suitable fire protection solutions for cables of all types, cable

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

How to effectively fire seal pipe and cable penetrations

A serious point of attention are the pipe and cable penetrations through the fire resistant walls and ceilings

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

Cable penetration seals in fire protection

Fire protection sleeves: These are fitted around cables and expand in the event of a fire to seal the openings and

Cable penetrations seals | Wolman

KBS ® offers various solutions to effectively protect cable penetrations from the passage of flames and smoke. In most cases, the

Fire Rated Cable Coatings and Penetration Sealing

Fire Rated Cable Coatings and Penetration Sealing Protective Coating Systems are specialists in Fire Rated Cable Coatings &

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

Fire Rating Cable Penetrations Explained

To compliantly seal cable penetrations with an AS 1530.4 certified product while meeting the requirements of AS 4072.1, you need to

Cable and pipe seals

Where to use Roxtec? You find roxtec cable and pipe seals in many applications throughout the construction industry. Discover the

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

Passive fire protection of electrical cable penetrations

Electrical cable penetrations are critical for building compartmentalisation because they have a high risk of ignition during a fire. Short

Spread of Fire or Products of Combustion. Cable Penetrations.

This section requires proper sealing of cable and raceway penetrations through fire-resistant rated walls, partitions, floors, or ceilings.

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