

Article Overview

Cable tray penetrations through walls must be sealed with fire-resistant materials to prevent fire and smoke spread, using methods compliant with EN standards and building regulations.

Importance of Fireproof Sealing

Cable trays, electrical cables, and data lines passing through walls create potential fire paths. In a fire, cables can melt, leaving openings that allow flames and smoke to spread. Copper cables can also conduct heat, increasing fire risk. Proper fireproof sealing ensures compartmentalization, maintaining the integrity of fire-rated walls and protecting both property and personnel .

Materials for Fireproof Sealing

Several materials are commonly used for sealing cable tray penetrations:

- o Firestop boards and panels: Rigid boards or rock wool panels that can be cut to fit around cable trays, providing high fire resistance .
- o Firestop packs and pillows: Intumescent or ablative pillows (e.g., AF BAGS) expand under heat to seal gaps, suitable for small to large cable penetrations, and certified up to EI 240 .
- o Firestop mastic and sealants: Acrylic or graphite-based sealants for single cables or small bundles, ETA-approved and tested to EN standards .
- o Mineral wool with sealant: Combines thermal insulation with fire-resistant sealing for larger openings .

Installation Guidelines

- o Prepare the opening: Ensure wall finishes are complete and the shaft or wall opening is clean and free of debris .
- o Install backing or support: For large openings, use a fire-resistant backing plate to support the sealing material .
- o Apply fireproof material: Place firestop packs, pillows, or boards around the cable tray. Ensure all gaps are sealed, with no voids exceeding 1 cm² .
- o Seal around metal trays: Gaps inside and around metal trunking must be sealed both internally and externally .
- o Cover and finish: Use cover plates or panels to close the opening neatly, ensuring consistent dimensions and even painting if required .
- o Maintain accessibility: Firestop pillows and modular systems allow repositioning for maintenance or cable modifications .

Fire Ratings and Standards

Fireproof sealing of cable trays on walls

- o Fireproof sealing must match or exceed the fire resistance of the wall, typically 1 hour or more .
- o Products should comply with EN 1366-3 or equivalent national standards, with ETA approvals where applicable .
- o Intumescent systems like AF BAGS can provide EI 120-240 protection depending on wall thickness and cable size .

Best Practices

- o Use modular or intumescent systems for flexibility and easier maintenance.
- o Ensure proper packing density and sequence of firestop materials to avoid gaps.
- o Regularly inspect and maintain fireproof seals, especially in high-risk areas like electrical shafts or industrial facilities .
- o Consult technical teams or product manufacturers to select the appropriate sealant or pillow for specific cable diameters and wall types . By following these guidelines, cable tray penetrations can be effectively fireproofed, maintaining wall integrity and complying with fire safety regulations.

KBS ® Pipe Seal M collars effectively ensure protection against the passage of fire and smoke in the event of fire. This fire stopping

AF BAGS are intumescent and ablative fireproof pillows certified under EN 1366-3 for EI 120/180 sealing of

When cable trays pass through walls or floors, seal openings using fire-rated penetration sealing materials.

wall is not rated as a fire wall, sealing penetration(s) will still prove to be beneficial, by providing intact separation and avoiding the

Our insurance company is requiring us to fire stop around cable trays where they penetrate walls. Most places look

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

The ability of the element to resist the spread of fire once breached is likely to have been compromised.
Regulation

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

Fire protection for cables and cable trays: effective solutions to prevent cable fires Cable systems are

Fireproof sealing of cable trays on walls

The composition of fireproof walls and fire-blocking sections should use fireproof sealing

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

Safer and and cost-efficient facilities with firestop solutions for cable penetrations. Pre-engineered, fiber-free for effortless retrofitting

Our premium, intumescent latex/water-based caulk. This is an affordable firestop caulk that helps you stay on budget. Its unique

Fire protection solutions to protect cables, cable trays and cable systems. Discover our tested cable

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

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

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