Methods of sealing cable trays with fireproof putty



Overview

Firestopping Requirements for Cable Trays and All gaps inside and around metal trunking must be sealed tightly and be complete both internally and external.

Key Takeaways

Use approved firestop putty, ensure tight and complete sealing around cables, and follow layering and inspection best practices to maintain fire-rated integrity.

Material Selection

Choose fire-rated putty or caulk specifically designed for electrical penetrations, such as 3M Fire Barrier Moldable Putty+ or intumescent caulks. These materials expand under heat to seal gaps and prevent fire and smoke spread. For larger openings, consider using fire-resistant backing plates or wrap strips to support the putty and ensure complete coverage.

Preparation

Measure openings accurately: Reserve openings slightly larger than the cable tray dimensions (typically 100–200 mm extra) to allow proper sealing. Clean surfaces: Remove dust, debris, and moisture from the tray edges and wall or floor penetration to ensure good adhesion. Install backing plates if needed: For large gaps, a fire-resistant plate provides a stable surface for putty application.

© 2026 EXF OPTICAL NETWORKS - All rights reserved

Application Techniques

Layering: Apply putty in layers, pressing it firmly around each cable and tray edge to eliminate voids. Gap filling: Ensure all gaps between cables, trays, and the penetration are completely filled. The gap area should not exceed 1 cm^2, and packing thickness should meet manufacturer specifications.

Use of collars or wrap strips: For snug penetrations, a one-piece metal collar combining moldable putty and intumescent wrap strip can be used to secure the seal. Smooth finish: Level the putty surface to create a uniform, visually appealing finish while maintaining firestopping effectiveness.

Inspection and Maintenance

Check for cracks or voids: After curing, inspect the seal to ensure there are no gaps that could compromise fire protection. Periodic review: For outdoor or high-humidity environments, inspect trays and seals regularly for corrosion, moisture, or damage. Reusability: Some putty systems allow for retrofitting or adding additional cables without compromising the firestop.

Additional Considerations

Segregate power and signal cables to reduce interference and simplify firestopping. Maintain clearance between cables to prevent heat accumulation and ensure proper airflow. Minimize opening size to reduce material usage and labor costs while maintaining compliance.

By following these tips, you can achieve a reliable, code-compliant firestop for cable trays that protects both the building structure and occupants in the event of a fire.

Article Content

Firestopping Requirements for Cable Trays and

All gaps inside and around metal trunking must be sealed tightly and be complete both internally and externally. Cover plates should be square, of

Firestop

3M Fire Barrier Moldable Putty+ is a one-part, halogen-free product designed to firestop electrical outlet boxes and a wide variety of through-penetrations including cable, conduit, insulated pipe and metal

Fire sealing cable penetrations

Fire sealing cable penetrations that pass through fire walls is important to prevent the spread of fire and smoke. Find out how we can help.

© 2026 EXF OPTICAL NETWORKS - All rights reserved

Cable Tray Penetrations: Problem Solved!

A simple and effective solution would be “Sleeve Systems.” where cable trays are stopped a few feet short of the fire barrier, a sleeve installed and the tray picked up again on the other side of the barrier.

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 up to 21 mm ("small") with a sealing depth of 120 mm even on non

Fireproof sealing method for cables

In order to improve fireproofing and block burn of cable measure, avoiding the serious accident reduced because ignition of cable causes, to ensure the normal production of enterprise, the...

Technical Guidelines for Cable Tray Installation and

When cable trays pass through walls or floors, seal openings using fire-rated penetration sealing materials. Only use fireproof trays for flame containment or

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 developed as a modular system which is simple to assemble around

Cable Penetration Seals | ZAPP-ZIMMERMANN GmbH

Cable penetration seal up to EI 120 for rigid walls, rigid floors and flexible walls. Through penetration firestop system for all types of sheathed cables except

Fireproof Cable Trays Acceptance: Standards for Safety

Ensure safety and durability with this comprehensive guide to fireproof cable trays acceptance. Learn coating processes, inspection standards, and

Cable penetrations seals | Wolman

Fire stopping of cable penetrations Avoid cable fires and stop them safely! KBS ® offers various solutions to effectively protect cable penetrations from the passage of flames and smoke. In most

Technical Guidelines for Cable Tray Installation and

Periodically inspect outdoor trays for rust, moisture accumulation, or UV damage reproof trays require scheduled inspection for coating integrity and

© 2026 EXF OPTICAL NETWORKS - All rights reserved

Plan, Install & Firestop Cable Penetrations

Product Combinations Reduce Firestopping Costs: Tray openings (especially multiple tray openings) are usually a great deal larger than required to run the tray itself. The area within the tray

Firestopping cable openings helps safeguard buildings and occupants

Sealing or firestopping openings where cables penetrate fire-rated walls and floors is an important aspect of cable installation and maintenance. When fire erupts in a building, small openings in fire

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 environmental conditions of cable laying, and should be stable under the

Fire Barrier Moldable Putty+

Insulated Cables/Moldable Putty Penetration Seal/Concrete Insulated Cables 1" Depth of 3M Fire Barrier Moldable Putty+ flush to the floor. Steel Sleeve (optional) Steel Sleeve (optional) Solid Concrete

How to Seal Cable Entry Holes | 5 Proven Techniques

Cable entry holes are necessary to feed important cables and wiring through a wall, but these holes must be sealed properly for safety reasons. You can use several

SpecSeal SSP Putty & Putty Pad

SpecSeal® SSP Firestop Putty is a high-performance, non-hardening intumescent firestop putty designed to seal cable penetrations and electrical outlet boxes with

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

© 2026 EXF OPTICAL NETWORKS - All rights reserved

Contact Us

Continue your research online:

Website: https://explosivefunctions.co.za
Technical inquiry: https://explosivefunctions.co.za/contact.html
EU project coordination: Parque das Nações, Lisbon, Portugal

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 EXF OPTICAL NETWORKS - All rights reserved