

Fireproofing materials for cable tray openings

Article Overview

Cable tray openings can be effectively fireproofed using intumescent pillows, firestop caulks, mineral wool, and fire-rated coatings to prevent fire and smoke propagation.

Common Fireproofing Materials

1. **Intumescent Firestop Pillows** Intumescent pillows, such as 3M Fire Barrier Moldable Putty+ or AF BAGS, expand when exposed to heat, sealing gaps around cables and trays. They are suitable for walls, floors, and non-conventional structures, and can provide protection up to EI 240 (EN 1366-3) or UL-rated systems with 1-3 hour fire ratings. Pillows are easy to install, repositionable for maintenance, and do not contain harmful fibers . 2. **Firestop Caulks and Mastics** Products like IC 15WB Caulk are intumescent, halogen-free, and can be applied with a standard caulking gun. They are ideal for sealing cut edges of mats or small gaps around cable trays, providing both fire and smoke containment. Caulks are flexible, adhere well to most surfaces, and maintain long-term performance . 3. **Fire-Resistant Mineral Wool and Boards** For larger openings, fire-resistant backing plates or mineral wool can be installed before sealing with caulk or pillows. Mineral wool is non-combustible, provides thermal insulation, and ensures that large penetrations are fully protected . 4. **Fireproof Coatings and Tape** Coatings like FLAMMOTECT-A and fire protection tapes such as DG-CR 0.7 form a protective shield around cables, preventing flame propagation and maintaining cable functionality during a fire. These solutions are suitable for indoor and outdoor use, including industrial and sensitive environments like hospitals or power plants .

Installation Guidelines

- o Ensure openings are tightly sealed without visible cracks or voids.
- o For large penetrations, install a fire-resistant backing plate before applying pillows or caulk .
- o Maintain proper packing thickness (e.g., 24 mm or as specified by product) and ensure gaps around cables do not exceed 1 cm² .
- o Use UL or EN certified systems appropriate for the wall or slab type, such as concrete or gypsum .
- o Fireproof trays should be inspected periodically for coating integrity and sealing effectiveness .

Practical Considerations

- o Measure cable tray dimensions accurately to select the correct number and size of pillows or caulk volume .
- o Use intumescent products for retrofitting or future cable additions, as they can be repositioned without compromising fire protection .
- o Ensure segregation of power and signal cables within trays to reduce fire risk and facilitate maintenance . By combining intumescent pillows, firestop caulks, mineral wool, and fireproof coatings, cable tray openings can

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achieve reliable fire containment, comply with safety standards, and maintain operational integrity during a fire event.

Learn how fire protection for cable trays enhances industrial safety by preventing fire

These barriers (walls & slabs) have opening for passing various MEP services like electrical (Cable, Trays, Busbars),

AS3000 is the primary design standard used for NCC/BCA compliance; this is our wiring rules for electrical

Sinisi Solutions works with major utilities and clients to design cable enclosures that protect critical cabling and cable tray setups

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

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

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

Cable trays encased with calcium silicate insulating panels with calcium silicate sleepers to hold cables away from

Currently we have both Acrylic and Graphite sealants in our range

Firestopping Cable Installations Don't introduce fire hazards when working on a new project. Ensuring your cable runs don't

3M Fire Barrier Moldable Putty+ is a one-part, halogen-free product designed to firestop electrical outlet boxes and a wide variety of

This document outlines the 3M Fire Barrier product line, designed to provide effective firestopping solutions for cable tray systems

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

Prevent smoke, flame and gas from traveling through walls via openings around pipes with 3M putty, foam,

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Proper fire protection for cable trays is crucial for maintaining building safety. Find out more

Fields of application services in walls and floors. It is designed for use with single cables, cable bundles, combustible and non

Web: <https://www.kremgroup.co.za>

