

Why does fire-retardant paint on galvanized cable trays exist



Overview

PAINTING OF CABLES It covers concerns such as the reactions of different paint types with cable sheaths, the effect on any LSOH properties and if Why Fire.

Key Takeaways

Intumescent and water-based fire-retardant paints are effective for protecting galvanized cable trays and the cables they carry, providing flame resistance, heat insulation, and compliance with fire safety standards. Types of Fire-Retardant Paints



1. Water-Based Intumescent Coatings Products like ALTIC 007 Fire Stop Coating are water-based, intumescent paints that expand up to 10 times their thickness when exposed to fire, forming an insulating char that prevents flame spread, heat transfer, and toxic smoke release. They are flexible, halogen-free, and suitable for both indoor and outdoor applications, providing up to 4 hours of circuit integrity for cables and trays, and are resistant to water, oil, alkali, and UV radiation . 2. Acrylic Fireproof Paints AF Cable Coat is a water-based acrylic paint designed for electrical cables on metal trays. It releases water vapor when exposed to fire, lowering the temperature and leaving a non-combustible residue that inhibits flame propagation. It maintains elasticity to accommodate temperature variations and vibrations, making it suitable for long cable runs on galvanized trays . 3. Specialized Fire Protection Coatings Products like FLAMMOTECT-A and DG-CR 0.7 provide a robust protective shield around cables and trays, preventing flame propagation and enhancing resistance to environmental factors such as UV radiation, salt water, oil, and chemicals. These coatings are suitable for high-risk environments including industrial plants, hospitals, and power stations .

Key Features to Consider

- Fire Resistance: Look for coatings tested to international standards such as IEC 60332, ASTM, or NFPA, ensuring they can delay or prevent flame spread.
- Intumescence: Intumescent paints expand under heat to form a protective char, which is particularly effective for cable trays.
- Environmental Resistance: Coatings should withstand moisture, UV exposure, oils, and chemicals, especially for outdoor or industrial installations.
- Compatibility: Ensure the paint adheres well to galvanized steel and does not compromise the tray's structural integrity.
- Application: Most coatings can be applied with a brush or spray gun. Some require coverage at specific intervals along the tray to ensure continuous protection .

Benefits

- Reduces flame propagation along cable trays.
- Protects critical electrical infrastructure during fire incidents.
- Provides additional time for evacuation and firefighting.
- Enhances compliance with fire safety regulations in industrial and commercial settings. For optimal results, select a certified fire-retardant paint compatible with galvanized surfaces and follow manufacturer guidelines for application thickness, coverage, and curing.

Article Content

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AF Cable Coat | Self-extinguishing paint for electrical cables

The product modifies in contact with fire and releases water vapour which lowers the temperature. Afterwards, the product leaves a

ALTIC 007 Fire Stop Cable Coating | Intumescent Fire Retardant Paint

On exposure to fire, the coating expands up to 10 times its thickness, forming an insulating char that prevents flame spread, heat

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

Fire Retardant Paints for Wire & Cable | RDR Technologies

One of the most effective methods to make a cable fire-resistant is to coat it with a fire-retardant material, such as an intumescent

Fire Retardant Cable Coating: Ensuring Safety and Protection

Enhance cable safety with SIGNUM Fire Retardant Cable Coating: certified for use in power plants, tunnels, hospitals, malls,

Fire-Resistant Cable Trays in High-Risk Environments

Hot-dip galvanized steel trays are coated with a layer of zinc to protect against corrosion, but they offer limited fire

Cable Tray Institute

The Cable Tray Institute (CTI) was founded in 1991 to support the cable tray industry by engaging in research, development,

Microsoft Word

DC6150 Cable Coating DC6150 Cable Coating is a non-halogenated, asbestos-free, non-toxic flexible fire retardant cable coating.

Cable Tray SHIB NAL

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

FRP vs GI Cable Trays

Fire retardant Lightweight Non-conductive (Learn more about FRP Cable Trays) What Are GI Cable Trays? GI Cable Trays are

Types of Cable Typically Used in Cable Tray

TC cables are rated for 600 volts and can be used in industrial power or control circuits, where flame retardant cables are desired.

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

