

What is a VCI bimetallic coated cable tray



Overview

VCI Coated Cable Tray Factory_Manufacture_Supplier VCI bimetallic cable trays are appropriate for use in excessive humidity, exceedingly corrosive VCI Enhan.

Key Takeaways

A VCI bimetallic coated cable tray is a corrosion-resistant cable management system that combines two metals with a vapor corrosion inhibitor (VCI) coating to protect electrical circuits in harsh environments. Overview

A VCI bimetallic coated cable tray is designed to provide superior corrosion protection by combining the benefits of two metals with a specialized VCI (Vapor Corrosion Inhibitor) coating. This makes it highly suitable for environments with high humidity, chemical exposure, or salt-laden air, such as basements, tunnels, mines, chemical plants, marine areas, and coastal regions .

Composition and Coating

The bimetallic coating typically includes:

- Zinc powder (20-40 parts) and aluminum powder (10-20 parts) for corrosion resistance
- Binder (30-50 parts), often a pre-hydrolyzed siloxane, which ensures strong adhesion to the metal substrate



- VCI sustained-release agent (5-15 parts) that continuously releases corrosion-inhibiting molecules The VCI coating forms a dense, protective layer that adheres tightly to the metal surface, providing cathodic protection and self-repairing minor surface damage. It also allows for additional organic coatings to enhance resistance against acids, alkalis, and heavy chemical corrosion .

Advantages

- High corrosion resistance: Protects against rust, salt spray, and chemical erosion
 - Durability: Extends the service life of cable trays in harsh environments
 - Environmental safety: Non-toxic, odorless, and environmentally friendly coating
 - Mechanical strength: Maintains high load-bearing capacity while providing long-term protection
 - Self-repairing: Minor scratches or surface damage are mitigated by the VCI effect
- #### Applications

VCI bimetallic coated cable trays are widely used in:

- Industrial facilities: Chemical plants, oil and gas industries
- Marine and coastal installations: Ports, offshore platforms
- Power and telecommunications: Substations, data centers, and power stations
- Special environments: Food processing plants or areas requiring strict hygiene and corrosion control

Summary

In essence, a VCI bimetallic coated cable tray is a high-performance cable management solution that combines the structural benefits of two metals with advanced VCI technology. It ensures long-term protection of electrical circuits in corrosive or high-humidity environments, making it a reliable and cost-effective choice for industrial, marine, and chemical applications .

Article Content

LEGRAND CABLE TRAYS TECHNICAL GUIDE

If it has excellent electrical continuity and is integrated in the installation's equipotential bonding system, a metal cable tray reduces

VCI Coated Cable Tray

Ang VCI bimetallic bridge ay isang uri ng tulay na may kakaibang anti-corrosion na katangian. Nag-aalok ito ng super kaagnasan

Cable Tray Technical Guide A practical guide to product selection

Cable tray is considered to be a system. It must provide continuous support for cables, and the electrical continuity of the cable tray

B-Line series Cable Tray Design Considerations

Our wind certification report provides you with list of acceptable B-Line series cable tray supports, fittings and covers based off of the

Full NEMA cable tray and cable management catalog

All cable tray side rails, rungs and splice plates are numbered for material traceability. The corrosion resistance of steel varies widely

What Is Tray Cable? Everything You Need to Know

Knowing the fundamental characteristics of tray cable will help you understand your product options, and allow you to make better

Cable tray

In the electrical wiring of buildings, a cable tray system is used to support insulated electrical cables used for power distribution,

Vci Galvanized Trough Cable Tray Factory

The energy-saving metal cable tray, manufactured with this advanced VCI bimetallic coating technology, offers high load-bearing

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The present application discloses a VCI bimetallic composite coating and a VCI bimetallic composite coating for a cable tray. The

What is Cable Tray and How it is used in Industrial applications?

What is Cable Tray? In electrical cabling, a cable tray is a metallic structure used to handle insulated electrical power

GUIDE CABLE TRAYS TECHNICAL

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations

Type of Cable Tray

The main benefits of steel cable tray are its high strength and low cost. Disadvantages include high weight, low electrical conductivity

GI Cable Trays – What it is, Types and Applications

GI cable tray systems take care of this efficiently. A GI cable tray (Galvanized Iron Cable Tray) is a structural system

Cables Allowed in NEC Tray Applications

Cables Allowed in NEC Tray Applications Cable tray is one of the most common methods of supporting wire and cable. There are

Cable Trays Surface Treatment: Methods and Applications

Cable trays play a critical role in electrical systems, offering sturdy support and reliable protection for cables in various

Nonmetallic

Nonmetallic cable tray systems have been tested and proven in the harsh environment of the offshore oil and gas industry. This tray

Vci Enhanced Cable Tray Production

The energy-saving metal cable tray the usage of excessive corrosion resistance VCI (gas segment corrosion inhibition) bimetallic

Full cable tray systems specification document

B. Cable tray systems are defined to include, but are not limited to straight sections of [ladder type] [trough type] [solid bottom type]

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