

RIVO MULTITRADE OPTICAL SYSTEMS

Conductive fiberglass cable trays



Overview

Enduro cable tray and cable ladder sets the industry standard for high-quality fiberglass cable tray.

Key Takeaways

Fiberglass cable trays can achieve conductive properties through carbon-filled resin systems, mechanical and chemical connections, and proper grounding practices. Conductive Resin Systems

Fiberglass cable trays are inherently non-conductive, but conductive resin systems can be used to dissipate static electricity and provide surface and volume resistivity suitable for electrical safety. These systems incorporate carbon additives into the resin during manufacturing, enabling the tray to meet standards such as the American Bureau of Shipping (ABS) Rules for marine and offshore installations . Conductive resin ensures that both the surface and bulk of the tray can safely conduct electricity, reducing the risk of static buildup in harsh or marine environments .

Mechanical and Chemical Connections

To maintain structural integrity and electrical continuity, fiberglass ladder-type trays use a combination of mechanical and chemical locks at the rung-to-side member connections. The tray sections are assembled using fiberglass reinforced thermoplastic locking pins inserted under pressure with high-strength, chemical-resistant adhesives . This dual locking method ensures that the tray remains rigid while providing a continuous conductive path when using conductive resin systems.

Grounding Considerations

While fiberglass trays are non-metallic, when conductive resin is used, they can be integrated into grounding schemes. For metallic cable trays, the National Electrical Code (NEC) allows the tray itself to serve as an Equipment Grounding Conductor (EGC) under certain conditions . In fiberglass trays with conductive resin, grounding is typically achieved by connecting the tray to a dedicated grounding conductor or bonding points to ensure any static or fault currents are safely dissipated . Proper installation and supervision are critical to maintain the effectiveness of the conductive path.

Standards and Compliance

Fiberglass cable trays with conductive properties are designed to comply with:

- ABS Rules for Steel Vessels and MODUs for marine applications
- ASTM E-84 Class 1 Flame Spread Rating for fire safety
- NEC Section 318 for grounding and bonding practices These standards ensure that the trays are safe for use in industrial, offshore, and marine environments while providing reliable electrical performance.

Summary

To achieve conductive connections in fiberglass cable trays:

- Use carbon-filled conductive resin systems to provide surface and volume conductivity.
- Employ mechanical and chemical locks at tray joints to maintain structural and electrical continuity.
- Integrate the tray into a grounding system using dedicated conductors or bonding points.
- Ensure compliance with ABS, ASTM, and NEC standards for safety and performance. This approach allows fiberglass cable trays to combine the benefits of corrosion resistance, lightweight construction, and electrical safety in demanding environments .

Article Content

Fiberglass Cable Tray

Our Fiberglass tray weighs 1/3 that of steel trays and is pound for pound stronger. This makes the tray easy to install, reduces the

Fiberglass (FRP) Cable Tray for Extreme Conditions

Enduro cable tray and cable ladder sets the industry standard for high-quality fiberglass cable tray. Our FRP cable tray is extremely

Premium FRP Cable Tray | Fiberglass Non-Metallic Routing

Our premium FRP Cable Tray (Fiberglass Reinforced Plastic) is the ultimate non-metallic cable management solution for harsh

Non-metallic cable tray | Fiberglass | High temperature | Eaton

Eaton's B-Line series fiberglass cable tray systems provide an economical support system with superior strength at room

24F09-06-120 B-LINE FIBERGLASS | Kendall Electric Inc

Applications for FRP cable tray systems include some corrosive atmospheres and where non-conductive material is required. B-Line

FRP Cable Trays

FRP Cable Trays SV Composites & Engineering offers premium-quality FRP Cable Trays designed to support and manage electrical

Fiberglass cable tray

Fiberglass cable trays are lighter, electrically non-conductive, and immune to galvanic corrosion, making them ideal for chemical,

GRP Cable Trays | Lightweight & Non-Conductive

GRP cable trays are an effective alternative to more conductive steel or other metallic materials for containing and protecting cables.

FRP Cable Ladder

EzyStrut developed its FRP cable ladder to provide a strong cable support solution for environments that could contain too many

Manufacturer of GRP/FRP Pipe & Chemical Equipment by EPP

High Strength-to-Weight: Can support heavy cable bundles without sagging (fiberglass trays have excellent rigidity). Low

Ladder Cable Tray

Enduro cable tray has long been the industry standard for high quality fiberglass cable tray. Made from the highest quality pultruded

FRP Cable Tray, FRP Ladder Type Cable Tray Manufacturer

The lightweight design makes installation easier, which helps lower labor costs. Additionally, the non-conductive properties of the

FRP/GRP Cable Tray and Cable Ladder | EAE USA

FRP/GRP Fiberglass Cable Trays & Cable Ladders — NEMA Certified FRP/GRP (fiberglass reinforced plastic) cable trays are

Cable Tray Selector

Our Fiberglass Cable Tray gives you the load capacity of steel, plus the inherent characteristics afforded by Pultrusion Technology:

Microsoft Word

A. The fiberglass ladder-type cable tray system shall be manufactured - pultrusion, compression molded, resin transfer molded

FRP Cable Trays for Extreme Conditions

Anti corrosion High tensile strength Highly durable Light weight Fire resistant Easy to install Non conductive Lower shock risks Non

Fiberglass Cable Tray for Corrosive Environments

Discover how fiberglass cable trays improve safety, corrosion resistance, and lifecycle cost in harsh industrial

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