Standard requirements for thickness of trapezoidal cable trays



Overview

This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray characteristics, installation, and requirements.

Key Takeaways

Trapezoidal cable trays typically require a material thickness ranging from 1. 2 mm to 3 mm, depending on span, load, and environmental conditions.

Material Thickness Considerations

The thickness of a trapezoidal cable tray directly affects its load-bearing capacity, allowable span, and long-term durability. Thicker trays can support heavier cable loads and longer spans without excessive deflection, while thinner trays are suitable for lighter loads or shorter spans. Light-duty trays: 1.

2–1. 5 mm, suitable for small control or instrumentation cables with short spans. Medium-duty trays: 1.

5–2. 0 mm, used for moderate cable loads in commercial or industrial installations. Heavy-duty trays: 2.

0–3. 0 mm, designed for large power cables, long spans, or outdoor installations where environmental factors like wind or snow may apply additional loads.



© 2026 METRA FIBER MARKET - All rights reserved

Standards and Compliance

Trapezoidal trays must comply with IEC 61537, which specifies mechanical strength, corrosion resistance, and load testing. The standard requires that trays undergo load and coating thickness tests to ensure durability under expected conditions. Material selection (steel, aluminum, or stainless steel) and protective coatings (galvanization or powder coating) also influence the required thickness.

Span and Load Impact

The support span is a critical factor in determining thickness. Longer spans require thicker sidewalls to prevent bending or deflection. For example: Short spans (≤1.

5 m): minimum thickness may suffice. Medium spans (1. 5–3 m): moderate thickness recommended.

Long spans (>3 m): heavy-duty thickness required to maintain structural integrity.

Environmental Considerations

Corrosive or outdoor environments may necessitate increased thickness or corrosion-resistant materials to maintain mechanical strength over time. Stainless steel or hot-dip galvanized trays often require slightly thicker material to compensate for potential coating wear.

Summary

When selecting a trapezoidal cable tray, consider: Cable load and typeSupport spanEnvironmental exposureCompliance with IEC, NEMA, or NEC standards Typical thickness ranges from 1. 2 mm for light-duty trays to 3 mm for heavy-duty applications, with adjustments based on span, load, and environmental conditions.

Article Content

Cable Tray Technical Guide A practical guide to product selection and ...

This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray characteristics, installation, and requirements.

GUIDE CABLE TRAYS TECHNICAL

Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules of Canadian Electrical Code, Part I and the National Electrical Code®

Codes and Standards | Cable Tray Institute

© 2026 METRA FIBER MARKET - All rights reserved

This standard specifies the requirements for nonmetallic cable trays and associated fittings designed for use in accordance with the rules of the Canadian Electrical Code (CEC) Part 1, and the National

Cable Tray Design and Standards Guide

The document outlines codes and standards that must be followed for design and construction of cable trays and their components. Standards listed include those for materials, rolling and cutting

Cable Tray Thickness Standard 2026: Key Guidelines

This report provides a comprehensive analysis of cable tray thickness standards, material specifications, and market trends as of May 2026. It covers both industrial-grade infrastructure and

IEC Standard for Cable Tray: Complete Technical Guide

All trays must undergo salt spray tests and coating thickness tests to ensure the coatings meet the durability levels required under the IEC standard for cable tray.

LEGRAND CABLE TRAYS TECHNICAL GUIDE

Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules of Canadian Electrical Code, Part I and the National Electrical Code®

IEC 61537:2023 | IEC

IEC 61537:2023 specifies requirements and tests for cable tray systems and cable ladder systems intended for the support and accommodation of cables and possibly other electrical equipment in

B-Line series Cable Tray Design Considerations

Cable tray support locations are defined by the NEMA VE-1 and VE-2 Manufacturing & Installation Standards, which specify the requirements for cable tray systems designed for use in accordance

Understanding IEC 61537: A Comprehensive Guide to Cable Tray

IEC 61537 does not specify exact load-bearing values for cable trays. Instead, it defines a standardized load-testing methodology and provides the following evaluation criteria: Longitudinal deflection: less

Cable Tray Manufacturers in Dubai, Abu Dhabi, Sharjah, UAE

Our cable tray systems are engineered for modern infrastructure, ensuring safe, organized, and efficient cable routing across commercial, industrial, and utility applications. Unigroup Cable Trays, Channels

© 2026 METRA FIBER MARKET - All rights reserved

Cable Tray Size Chart and Selection Guide

For trays with substantial electrical cable tray dimensions carrying large power cables, this requirement may dictate custom-radius fittings rather

IEC Standard for Cable Tray: Complete Technical Guide

Understanding the IEC Standard for Cable Tray Cable trays play a vital role in supporting electrical cables and wires in commercial, industrial, and

2026 Best Cable Tray Cable Options for Your Projects?

Cable tray systems play a crucial role in organizing and protecting cables in various projects. They offer a structured way to manage electrical and communication cables, which is vital in

Fireproof Cable Trays Acceptance: Standards for Safety and Longevity

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

Equatorial Guinea Galvanized Cable Tray Supplier

Sell Equatorial Guinea Galvanized Cable Tray Supplier in bulk to verified buyers and importers. Connect with businesses actively looking to buy wholesale Equatorial Guinea Galvanized Cable Tray Supplier

Samoa Galvanized Cable Tray Specifications Buyers & Importers ...

Sell Samoa Galvanized Cable Tray Specifications in bulk to verified buyers and importers. Connect with businesses actively looking to buy wholesale Samoa Galvanized Cable Tray Specifications at best

GUIDE CABLE TRAYS TECHNICAL

In accordance with its continuous impro-vement policy, Legrand reserves the right to change the specifications and illus-trations without notice. All illustrations, descriptions and technical information

Related Video Reference

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

© 2026 METRA FIBER MARKET - All rights reserved

Contact Us

Continue your research online:

Website: https://metramarket.es
Technical inquiry: https://metramarket.es/contact.html

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

© 2026 METRA FIBER MARKET - All rights reserved