

Article Overview

Aluminum cable trays typically use 6063-T6 aluminum alloy for their plates and structural components.

Material Specification

The standard aluminum grade for cable tray plates, including splice plates, is 6063-T6. This alloy is widely used due to its high strength, corrosion resistance, and excellent formability, making it suitable for both indoor and outdoor applications . The T6 temper indicates that the aluminum has been solution heat-treated and artificially aged, providing a good balance of mechanical strength and durability .

Mechanical and Environmental Properties

- o **Lightweight:** Aluminum trays weigh approximately half as much as equivalent steel trays, facilitating easier installation .
- o **Corrosion Resistance:** 6063-T6 forms a natural oxide layer (alumina) that protects against atmospheric corrosion, stress corrosion cracking, and pitting . This makes it ideal for harsh environments, including industrial and marine applications .
- o **Thermal Conductivity:** Aluminum's high thermal conductivity helps prevent cable overheating, enhancing safety .
- o **Load Capacity:** Despite being lightweight, 6063-T6 aluminum trays maintain high structural strength and can support dense cable transitions .

Standards and Compliance

Aluminum cable trays and their components are typically NEMA VE-1 and IEC 61537 certified, ensuring compliance with industry safety and performance standards . Hardware for aluminum trays is usually zinc-plated or Type 316 stainless steel for outdoor use, in accordance with ASTM B633 .

Summary

For cable tray applications, 6063-T6 aluminum alloy is the preferred grade due to its combination of strength, corrosion resistance, lightweight design, and compliance with international standards. It is suitable for a wide range of environments, from commercial buildings to industrial facilities, and provides a durable, long-lasting solution for cable management .

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Cable tray aluminum plate grade

metallic tray. A series

Aluminum alloy cable tray is made of aluminum alloy through extrusion molding. Compared with stainless steel cable trays, aluminum

Eaton's B-Line series cable tray is UL® classified as to its suitability as an equipment grounding conductor. If a separate conductor

As a less-expensive alternative to conduit, a stronger alternative than wire basket, and superior to generic

Aluminum Ladder System SPAN/LOAD CLASS DESIGNATIONS Commonly called the Load Class, this defines the load-carrying

Increasingly, however, aluminum is becoming the material of choice for cable tray systems. In these days of shrinking construction

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

The aluminum cable tray is a lightweight, durable, and cost-effective solution used for organizing and safely carrying electrical and

Husky Ladder Cable Tray Systems: Cable support system constructed from two side rails connected with individual rungs. Husky

Description: This product category covers metal cable trays and metal cable tray systems intended for field assembly and for use in

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Aluminum cable tray with high corrosive resistance performance and durable life is widely used in the corrosive and harsh

T& B channel tray systems are fabricated from a corrosion-resistant metal (low-carbon steel, stainless steel or an aluminum alloy) or

Explore the types of cable trays, their advantages, applications, and standard sizes. Learn how they improve cable

Cable trays support insulated electrical cables in industrial and commercial settings. There

Cable tray aluminum plate grade

NEMA VE 1-2017 Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules

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