

# Cold galvanizing of galvanized cable trays



## Summary of Content

Cold galvanizing is a zinc-rich coating applied at room temperature to protect cut, welded, or pre-galvanized cable trays, but it provides thinner, less corrosion-resistant protection than hot-dip galvanizing.

What is Cold Galvanizing?

Cold galvanizing refers to the application of a zinc-rich coating to steel or galvanized surfaces at room temperature, typically by spraying, brushing, or electroplating . It is commonly used to repair areas where pre-galvanized or hot-dip galvanized trays have been cut, drilled, or welded, restoring some level of corrosion protection . Unlike hot-dip galvanizing, which immerses steel in molten zinc at 450–480°C, cold galvanizing does not form a zinc-iron alloy layer and therefore offers weaker corrosion resistance .

Differences from Hot-Dip Galvanizing

| Feature              | Cold Galvanizing                                                 | Hot-Dip Galvanizing                                             |
|----------------------|------------------------------------------------------------------|-----------------------------------------------------------------|
| Application          | Room temperature (spray, brush, electroplating)                  | Immersion in molten zinc at 450–480°C                           |
| Zinc Layer Thickness | Thin, often cosmetic                                             | Thick, forms zinc-iron alloy + pure zinc layer                  |
| Corrosion Resistance | Moderate, suitable for mild indoor environments                  | High, suitable for harsh, outdoor, or industrial environments   |
| Standards            | No formal ASTM standard; often zinc-rich paint or electroplating | GB/T 13912-2020, IEC 61537, or equivalent                       |
| Use Case             | Touch-up, repair, or light-duty indoor trays                     | Full protection for outdoor, coastal, or corrosive environments |

## Article Content

How To Make Custom Galvanized Perforated Cable Tray: A

Learn how to manufacture custom galvanized perforated cable trays with our professional guide. Master material

Galvanized Cable Tray Guide | ASTM A123, ASTM A653, ISO 1461

Cable trays are often installed for many years in electrical rooms, factories, outdoor corridors and infrastructure areas. A suitable

Galvanized Cable Tray: Types, Standards, Coating Thickness and

Learn the difference between pre-galvanized and hot dip galvanized cable trays, including coating thickness standards (ASTM A123,

Galvanized Cable Tray Zinc Coating Standards and Regulations

The galvanization process is the primary anti-corrosion treatment for cable trays. The quality of the zinc coating directly

Galvanization In Cable Tray Manufacturing and Installation

At Tanya Galvanizers, we help the manufacturers to undergo a proper galvanization that is the initial stage of the work.

Hot-Dip Galvanized vs

The hot-dip galvanized coating on steel must be repaired with a zinc rich paint (also called cold galvanizing) which is inferior to the

cold-galvanized cable trays | Eng-Tips

"Cold galvanized" is synonymous with "electroplated" so far as I know.

"Pregalvanized" does not refer to the method,

Comparative Analysis of Hot-Dip Galvanized and Pre-Galvanized

Hot-dip galvanized cable trays undergo a galvanization process where the steel tray is immersed in a bath of molten

Powder Coating for Cable Tray Systems Guide

Guide to powder coating cable tray systems for data centers and industrial use. Covers fire ratings, corrosion, and hot

CABLE TRAYS

This white paper compares the High Resistance (HR) and Hot-Dip Galvanising (HDG) solutions and highlights the new High

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