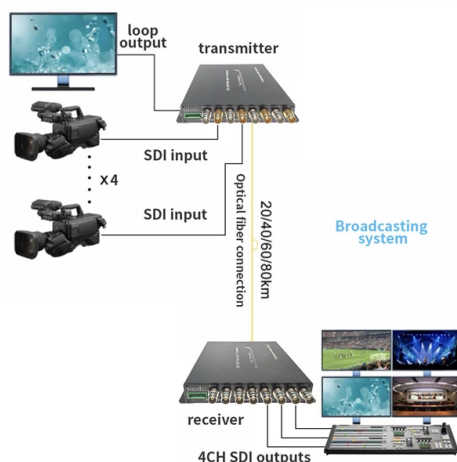


Lifespan of New Polymer Cable Trays



Overview

What are the reasons for the aging of cable trays during use? What should we do to prevent the aging of cable trays? ...

Key Takeaways

New polymer cable trays, such as fiberglass-reinforced plastic (FRP), typically have a lifespan of 15 to 25 years, depending on environmental conditions and maintenance. Expected Lifespan

Polymer cable trays, particularly fiberglass-reinforced plastic (FRP) trays, are highly resistant to corrosion, chemicals, and moisture, making them ideal for harsh industrial, chemical, or marine environments. Under normal conditions, FRP trays can last between 15 to 20 years, and in well-maintained systems, they may reach up to 25 years. Their non-metallic composition prevents rust and pitting, which are common issues in steel trays exposed to moisture or chemical vapors.

Factors Affecting Lifespan

- **Environmental Conditions:** Exposure to UV radiation, high humidity, chemical vapors, or extreme temperatures can influence the service life. Polymer trays are generally more resilient than metal trays in these conditions.
- **Maintenance:** Regular inspections, cleaning, and prompt repair of any damage can significantly extend the lifespan of polymer trays.

- **Load and Installation:** Proper installation according to manufacturer guidelines, including correct support spacing and avoiding overloading, ensures structural integrity over time .

Advantages of Polymer Cable Trays

- **Corrosion Resistance:** Unlike galvanized or stainless steel, polymer trays are not affected by acids, alkalis, or moisture, which makes them suitable for chemical plants and offshore installations .

- **Lightweight and Easy to Install:** FRP trays are easier to handle and install compared to metal trays, reducing labor costs and installation time .

- **Low Maintenance:** Minimal upkeep is required, as they do not rust or require protective coatings .

Comparison with Other Materials

- **Galvanized Steel:** 1-15 years depending on environment and coating quality .
- **Aluminum Alloy:** 10-15 years, with good corrosion resistance in indoor settings .
- **Stainless Steel:** 20-25 years, excellent for chemical or marine environments but heavier and more expensive .
- **FRP/Polymer:** 15-25 years, optimal for corrosive or high-risk environments with minimal maintenance . In summary, new polymer cable trays offer a long-lasting, low-maintenance solution, particularly in corrosive or chemically aggressive environments, with a typical lifespan of 15 to 25 years when properly installed and maintained.

Article Content

Cable Tray Service Life Explained: How Long Do They Last?

Here, we look at what impacts a cable tray's lifespan, how we can figure out how long it might last, and give you

Polymer Cable Tray Factory_Manufacture_Supplier

This type of cable tray not only inherits the load capacity of the traditional metal cable tray, but also combines the insulating and

Chemical Exposure: The Effect on the Lifespan of Cable trays

This guideline demonstrates the reduction of tray life by chemicals. With an appropriate choice of materials, such as

Why do cable trays age? How should we handle it?

What are the reasons for the aging of cable trays during use? What should we do to prevent the aging of cable trays? ...

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MP Husky Fiberglass Cable Tray is available in both polyester and vinylester resin systems. They are manufactured to meet ASTM E

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Stainless steel trays excel with a lifespan of over 20 years, particularly in harsh conditions. Aluminum alloy trays

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

Cable Tray SHIB NAL

Cable trays are not raceways, but they are treated as a structural component of a facility's electrical system. Cable trays are a part of

Decades of Reliability: The Lifespan of Wire Mesh Cable Trays

Built for Longevity The durability of wire mesh cable trays is primarily due to their high-quality construction materials.

Cable Tray Technical Guide A practical guide to product selection

Cable Tray Technical Guide A practical guide to product selection and installation This guide for engineers and installers has been

FactSheet

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How Proper Cable Tray Spacing and Support Improve System Lifespan

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Estimating Cable Life Expectancy

Recycled PVC has a shorter thermal lifespan, at approximately 6.3 years at the upper-temperature limit of 60 degrees s, compared

FRP Cable Tray

At U-Protec Earthing, we specialize in the manufacturing of FRP (Fiber Reinforced Plastic) cable trays, offering a superior cable

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

