

DAKEN Fire-Rated Cable Tray/Trunking

The DAKEN Fire-Rated Cable Tray/Trunking (DFCT) is a new-generation cable protection system that integrates fire resistance, structural load-bearing capacity, and ventilation into one single solution.

It is constructed mainly by using an epoxy-based intumescent fire protection system, combined with integrated internal metal reinforcement supporting plates and ventilation grilles.

This innovative design not only provides excellent fire resistance, but also effectively addresses the common issues associated with traditional fully enclosed cable trunking systems, such as heat accumulation, accelerated cable ageing, and reduced system reliability. As a result, it significantly enhances the overall operational safety and reliability of the cable network.



Highlights

1 Intumescent Passive Fire Protection

- Epoxy - based intumescent fire protection system;
- Forms a dense, insulating char layer under high temperatures, significantly reduces heat transfer;
- Provides critical fire integrity and thermal insulation protection for cables;

2 Ventilated Grille Design

- Ensures natural ventilation and heat dissipation under normal operating conditions;
- Works synergistically with the intumescent material under fire conditions;
- Suppresses flame spread and radiant heat transfer;

3 High Structural Strength

- Manufactured by using high-strength materials which significantly enhance load-bearing capacity and structural stability;
- Internal metal plate reinforcement ensures long-span installation stability and prevents deformation or fracture;
- Fit for long-distance routing, elevated installations, and complex layouts;
- Resistant to vibration, wind loads, and harsh operating environments;

4 Environmental Adaptability

- Excellent weather resistance, chemical resistance, and long-term durability (epoxy system based);
- Suitable for indoor, outdoor, and offshore/marine environments;
- Compatible with power, control, and communication cables;
- Supports customized dimensions and multiple installation configurations;

Application

- Protection of power cables, control cables, and instrumentation cables;
- Centralised cable routing in high-fire-risk zones;
- Petrochemical plants, LNG facilities, oil & gas processing areas;
- Offshore platforms, vessels, and offshore modules;
- Cable crossings through fire compartments, unit boundaries, and escape routes;
- Power infrastructure and auxiliary systems in nuclear power facilities and other high-risk fire environments;

Fire Performance

The Daken Fire-Rated Cable Tray/Trunking has been validated under multiple extreme temperature-rise fire scenarios. It not only meets the protection requirements for conventional cellulosic fires in buildings, but it is also specifically engineered for harsh industrial environments, providing passive fire protection against:

- Hydrocarbon Pool Fire
- Hydrocarbon Jet Fire



Certification & Test Standards

- UL 1709:2017 – Rapid temperature rise hydrocarbon pool fire test
- ISO 22899-1:2021 – Hydrocarbon jet fire test
- ISO 834 – Fire-resistance tests for building elements (cellulosic fire)
- BS 476 – Fire tests on building materials and structures (cellulosic fire)