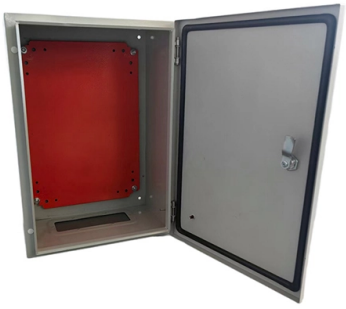
Dimensions of fiber optic corrugated pipes for subway use



Overview

CorrugatedFlexible, lightweight, and strong, Corrugated HDPE conduit is specifically engineered to subdivide large conduit pathways, Dimensions of fiber op.

Key Takeaways

Fiber optic corrugated pipes for subway installations are typically made of HDPE, with outer diameters ranging from 20 mm to over 110 mm, supplied in coils of 200–300 meters, and designed for flexibility, impact resistance, and underground durability.Material and Construction

Fiber optic corrugated pipes are generally made of high-density polyethylene (HDPE), often using PE 4710 resin, which provides high impact and abrasion resistance, flexibility, and a lifespan exceeding 50 years . The corrugation is usually spiral-shaped, enhancing flexibility for installation in tight subway tunnels or curved pathways . Some products include internal grooves to reduce friction for air-blown fiber optic cables .

Standard Dimensions
• Outer Diameter (OD): Typically starts at 20 mm for microducts and can go up to 110 mm or more for larger conduits .

• Inner Diameter (ID): Varies depending on wall thickness; HDPE corrugated pipes are designed to accommodate standard fiber optic cable sizes.

• Wall Thickness: Controlled to meet mechanical strength requirements, often specified according to ASTM F-2160 or IEC standards .

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• Coil Lengths: Standard coils range from 200 m to 300 m, with sealed ends to prevent contamination during storage and installation .
Color Coding and Identification

Corrugated pipes often feature colored stripes or internal ducts to identify different cable paths, with standard colors including red, white, blue, and yellow . This facilitates organization in complex subway networks.

Installation Considerations
• Suitable for direct burial in subway trenches or mini-trenches .

• Flexible enough to navigate curves and obstacles in urban underground environments .

• Resistant to weather, UV, and chemical exposure, ensuring long-term durability .

• Compatible with manhole connectors, couplers, and inner duct sockets for modular installation .
Summary

For subway fiber optic installations, HDPE corrugated pipes provide a combination of flexibility, strength, and ease of installation. Typical specifications include OD 20–110 mm, coils of 200–300 m, and ASTM/IEC-compliant HDPE material, with color-coded ducts for cable management and long-term underground performance .

Article Content

COD (Corrugated Optic Duct) Pipe | tradekorea

- COD used to protect fiber optic cables - Unique design (Outer duct is spiral corrugated type, inner duct is straight duct) - It is able to

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