

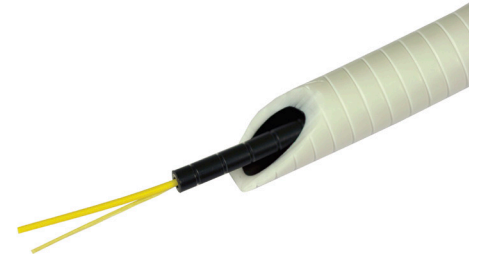
Miniflex[®] CIMD

Cable-in-Microduct



Features & Benefits

- Fire retardant
- UV stabilized
- Lightweight
- Small form factor
- Grooving increases flexibility/bend radius
- High crush resistance



Compatibility:

- ITU-T G.657 & G.651
- UL 2024 Optical Fiber Raceway
- Field Splice and Lab Terminations



Overview

Miniflex[®] CIMD is a flexible cable in microduct made from a crush-resistant polymer with a high strength-to-weight ratio. Miniflex CIMD is available with many different fiber counts and fire ratings.

Applications

- FTTH/FTTX - Indoor
- FTTH/FTTX - Outdoor
- Telecoms
- Rural Broadband
- Data Infrastructure
- Transportation
- Military
- DAS / FTTA

Cable Material Information

| Cable Material | Properties | Best for | Color | Operating Temp | Installation Temp |
|----------------|---|--|-------|-----------------------------------|----------------------------------|
| PBT | Hardest & toughest outdoor material, some UV resistance | Indoor - (FR) Outdoor – (UV stable) | Black | -40°C to 80°C (-40°F to 176°F) | -20°C to 60°C (-4°F to 140°F) |
| PBIO | Tough and lightweight, Riser | Indoor – Flame Retardant (UL1651 material) | White | -40°C to 80°C (-40°F to 176°F) | -20°C to 60°C (-4°F to 140°F) |

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Technical Data

Fiber Specifications

| Type | Fiber Count | Weight | O.D. | Sheath Thickness | Tension Strength | Minimum Bend Radius | | Crush |
|-----------|-------------|------------------------|-----------|------------------|------------------|---------------------|-----------|----------|
| | | | | | | Installation | Operation | |
| <i>μm</i> | | <i>kg/km, lb/100ft</i> | <i>mm</i> | <i>mm</i> | <i>N</i> | <i>mm</i> | <i>mm</i> | <i>N</i> |
| 900 | 1 | 8.1 | 3.0 | 0.8 | 100 | 15 | 30 | 950 |
| 250 | 1-12 | 8.1 | 3.0 | 0.8 | 100 | 15 | 30 | 950 |
| 250 | 24 | 8.1 | 4.0 | 0.7 | 100 | 20 | 40 | 650 |

Drop Duct Specifications

| Material | O.D. | I.D. | Crush | Tension | Nominal Weight | Bend Radius | Install Temp | Operating Temperature |
|--------------|-----------|-----------|----------|----------|----------------|-------------|--------------------------|---------------------------|
| | <i>mm</i> | <i>mm</i> | <i>N</i> | <i>N</i> | <i>kg/km</i> | | <i>°C (°F)</i> | <i>°C (°F)</i> |
| PBT Standard | 8.0 | 5.5 | 400 | 250 | 24.3 | 20x OD | -10 to 60 (14 to 140) | -40 to 70 (-40 to 158) |
| | 10.0 | 6.0 | 725 | 350 | 39.6 | | | |
| PVDF* Plenum | 10.0 | 7.0 | 1000 | 250 | 26.5** | 20x OD | -10 to 60 (14 to 140) | |
| PEMX Riser | 8.0 | 5.5 | 400 | 250 | 24.3 | 20x OD | -10 to 60 (14 to 140) | |
| | 10.0 | 6.0 | 725 | 350 | 39.6 | | | |
| HDPE | 10.0 | 6.0 | 2000 | 800 | 49.1 | 20x OD | -10 to 60 (14 to 140) | |

Transmission Performance Specification

| Item | Single-mode |
|--|-------------------------------------|
| Specification | G657 A1 |
| Attenuation (1310 / 1550 nm) | ≤ 0.35/0.21 dB/km |
| Attenuation at 1625 nm | < 0.24 dB/km |
| Refractive Index at 1310nm, 1550nm | 1.467, 1.468 |
| Proof test | 0.69 GPa (100 kpsi), 1% min. |
| Cladding diameter | 125 ± 0.7μm |
| Coated diameter | 235μm to 245μm |
| Core/Cladding concentricity error | ≤ 0.5μm |
| Coating concentricity error Macro bend loss | ≤ 12μm (1550 nm) |
| Temp. range (operation) -60°C to 85°C (-76°F to 185°F) | max attenuation change ≤ 0.05 dB/km |
| Coating Strip Force 1.3 to 8.9 N | 1.3 to 8.9 N |

Ordering Information

| Part Number | Description | Fiber Count | Type | Spool Length |
|-------------|--|-------------|--------|------------------|
| 10-1297 | 10mm Riser Microduct – 3mm PBT Miniflex | 1 | 250 μm | 3,280 ft / 1 km |
| 10-1300 | 8mm Riser Microduct – 3mm Riser Miniflex | 1 | 250 μm | 3,280 ft / 1 km |
| 10-1309FT | 8mm Riser Microduct – 3mm Riser Miniflex | 1 | 900 μm | 1,000 ft / 305 m |

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