

Miniflex[®]

Standard Cable



Features & Benefits

- Fire Retardant
- UV Stabilized
- Features Miniflex[®] technology
- Lightweight/small diameter
- Grooving increases flexibility/bend radius
- Very high crush resistance
- Uses industry-standard fiber
- Ultra tough
- Class-leading combination of size, crush resistance, flexibility & fiber density

Compatibility

- ITU-T G.657 & G.651
- UL 2024 Optical Fiber Raceway
- Field splice and lab terminations
- Microduct – indoor, riser, plenum, outdoor, aerial & direct bury
- QuikPush[®] pre-terminated connector (SC & LC)



Overview

Miniflex[®] standard fiber cable is a flexible, pushable fiber optic cable made from a crush resistant, durable polymer. It has exceptionally low weight for the level of strength and protection it provides. Miniflex standard fiber cable is available with many different counts & types of fiber, including G.657A1 singlemode and G.651 OM3 multimode.

Applications

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

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Technical Data

Cable Material

| Fiber Count | Weight | O.D. | Sheath Thickness | Tension Strength | Minimum Bend Radius | | Crush |
|--|---|-----------|------------------|---------------------------------------|---------------------|-----------|--------|
| | | | | | Installation | Operation | |
| 250µm | kg/km (lbs/kft) | mm (in) | mm (in) | n | mm (in) | mm (in) | n |
| 1, 2, 4, 6, 8 & 12 | 8.1 (5.4) | 3.0 (.1) | 0.8 (.03) | 100 | 15 (.6) | 30 (1.2) | 950 |
| 1 (900 µm) | 8.1 (5.4) | 3.0 (.1) | 0.8 (.03) | 100 | 15 (.6) | 30 (1.2) | 950 |
| 24 | 9.2 (6.1) | 4.0 (.15) | 0.7 (.027) | 100 | 20 (.8) | 40 (1.6) | 650 |
| Material | Properties | | | Best for | | | Color |
| PBT | Hardest & toughest outdoor material, some UV resistance | | | Indoor – (FR) & Outdoor – (UV stable) | | | Black* |
| <i>Tone-able cables use a 33 AWG Copper Clad Toning Wire. *Other colors available upon request</i> | | | | | | | |
| Operating Temp | | | | Installation Temp | | | |
| °C (°F) | | | | °C (°F) | | | |
| -40 to 70 (-40 to 158) | | | | -20 to 60 (-4 to 140) | | | |

Fiber Transmission Performance Specification

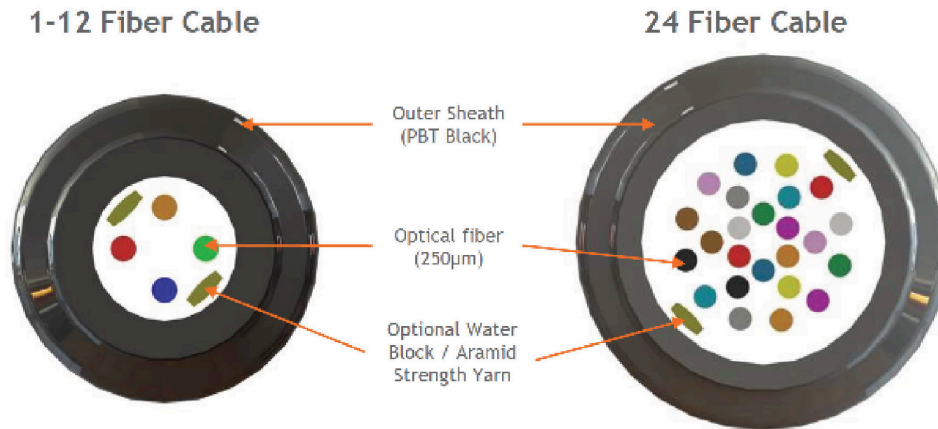
| Item | Single-mode | Single-mode 900µm | Multi-mode |
|------------------------------------|------------------------------|------------------------------|------------------------------|
| Specification | G657 A1 | G657 A2 | OM3 |
| Attenuation (850 / 1300 nm) | n/a | n/a | 3.5/1.5 dB/km |
| Attenuation (1310 / 1550 nm) | 0.4/0.3 dB/km | 0.4/0.3 dB/km | n/a |
| Attenuation at 1383nm | ≤ 0.32 dB/km | n/a | n/a |
| Attenuation at 1625 nm | < 0.24 dB/km | < 0.24 dB/km | n/a |
| Refractive Index at 1310nm, 1550nm | 1.467, 1.468 | 1.467, 1.468 | n/a |
| Refractive Index at 850nm, 1300nm | n/a | n/a | 1.482, 1.477 |
| Proof test | 0.69 GPa (100 kpsi), 1% min. | 0.69 GPa (100 kpsi), 1% min. | 0.69 GPa (100 kpsi), 1% min. |
| Cladding diameter | 125 ± 0.7µm | 125 ± 0.7 µm | 125 ± 1.0µm |
| Coated diameter | 235µm to 245µm | 235µm to 245µm | 237µm to 247µm |
| Core/Cladding concentricity error | ≤ 0.5µm | ≤ 0.5 µm | ≤ 1.0µm |
| Coating concentricity error | ≤ 12µm | ≤ 12µm | ≤ 6µm |
| Macro bend loss | (1550 nm) | (1550 nm) | (850 and 1300 nm) |
| 10 turns at 50mm diameter | ≤ 0.01 dB | n/a | ≤ 0.2 dB |
| 10 turns at 15 mm diameter | ≤ 0.2 dB | ≤ 0.03 dB | n/a |
| 1 turn at 10mm diameter | ≤ 0.2 dB | ≤ 0.10 dB | n/a |
| 1 turn at 7.5mm diameter | n/a | ≤ 0.50 dB | n/a |
| Temp. range (operation) | max attenuation change | | max attenuation change |
| -60°C to 85°C (-76°F to 185°F) | ≤ 0.05 dB/km | | ≤ 0.1 dB/km |
| Coating Strip Force | 1.3 to 8.9 N | | 1.3 to 8.9 N |

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Technical Data

Fiber Cable Design



Ordering Information: Code Builder

| | | | | | | | | | | | |
|-----------|------|---|---|---|------------|---|-----|---|------|--------|----|
| Example | TNCA | - | 2 | - | 4.0-24-PBT | - | BLK | - | 1000 | G657A1 | TW |
| Character | 1 | | 2 | | 3 | | 4 | | 5 | 6 | 7 |

1. Product Type
TNCA = Fiber Cable

2. Fiber Size
2 = 250µm
9 = 900µm

3. Unique Product Code
3.0-01-PBT = 1 fiber
3.0-02-PBT = 2 fibers
3.0-04-PBT = 4 fibers
3.0-08-PBT = 8 fibers
3.0-12-PBT = 12 fibers
4.0-24-PBT = 24 fibers

4. Color
BLK = Black
(check availability)

5. Length
1000 = 1000 ft / 305 m
6500 = 6500 ft / 2 km

6. Fiber Type
G657A1
G657A2
OM3
OM4

7. Length
BLANK = Standard
TW = Add toning wire