

Power and optical outdoor microduct hybrid cable

TC05080



-not to scale-

Cable Design

According to IEC/EN 60794

- **Central Strength Member (CSM):** glass fibres reinforced plastic rod (GRP).
- **Filler Elements:** buffer tubes containing 1, 2 or 6 BendBright™ XS optical fibres.
- **Power Conductor:** XLPE insulated - 6 round flexible copper conductors (class 5), with section 1.0 mm², voltage rating < 500V.
- **Stranding:** copper conductors and fillers, SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable materials (dry core).
- **Outer Sheath:** green PE, 2 ripcords beneath.

Cable Application

These outdoor Sirocco microduct hybrids optical fibre cables are optimized for installation by blowing into microducts and protected microducts. Please contact your sales representative for ordering guides and installation information.

Technical Data

| No. of Fibres | | 6 (6x1) | 12 (6x2) | 36 (6x6) |
|--------------------------|-----------------|-------------------------------------|------------------------|-------------------------------|
| Tube Diameter – Ø | mm | | 0.9 | |
| No. of copper conductors | - | | 6 | |
| Copper diameter | mm | | 2.2 | |
| Section | mm ² | | 1.0 | |
| CSM/Enlargement – Ø | mm | | 2.3 | |
| Sheath Thickness | mm | | 0.4 | |
| Cable Diameter – Ø | mm | | 7.7 | |
| Cable Weight | kg / km | | 100 | |
| Minimum Bending Radius | mm | Under Maximum Tension: 20 x Cable Ø | | Without Tension: 10 x Cable Ø |
| Temperature Range | °C | Transport & Storage: -20 → +50 | Installation: -5 → +40 | Operation: -20 → +50 |

Main Characteristics

| Test | Standard | Specified Value | Acceptance Criteria |
|---------------------|-------------------|------------------------------|---|
| Tensile Performance | IEC 60794-1-21-E1 | 2000 N | $\Delta\alpha \leq 0.02$ dB, reversible Fiber strain, reversible |
| Crush | IEC 60794-1-21-E3 | 1000 N / 100 mm, max. 15 min | $\Delta\alpha$ reversible (≤ 0.05 dB), no damage |
| Impact | IEC 60794-1-21-E4 | 5 J, 3 impacts, R = 300 mm | $\Delta\alpha$ reversible (≤ 0.05 dB), no damage |
| Temperature Cycling | IEC 60794-1-22-F1 | -25 °C to +60 °C | $\Delta\alpha \leq 0.1$ dB/km, reversible |

Optical Characteristics

See the attached BendBright™ XS C24 cabled optical fibre data sheet.

Electrical Characteristics

Electrical resistance: 19.5 Ω/km at 20°C, per insulated conductor.

Identification

Fibre Colours ⁽¹⁾:

Type A 6 (6x1)

| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|-------|
| Colour | blue | orange | green | brown | grey | white |
| |  |  |  |  |  | |

Tube Colours ⁽¹⁾:

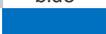
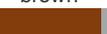
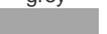
| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|-------|
| Colour | blue | orange | green | brown | grey | white |
| |  |  |  |  |  | |

Fibre Colours ⁽¹⁾:

Type B 12 (6x2)

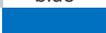
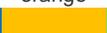
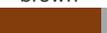
| No. | 1 | 2 |
|--------|---|---|
| Colour | blue | orange |
| |  |  |

Tube Colours ⁽¹⁾:

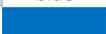
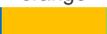
| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|-------|
| Colour | blue | orange | green | brown | grey | white |
| |  |  |  |  |  | |

Fibre Colours ⁽¹⁾:

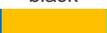
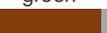
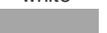
Type C 36 (6x6)

| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|-------|
| Colour | blue | orange | green | brown | grey | white |
| |  |  |  |  |  | |

Tube Colours ⁽¹⁾:

| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|-------|
| Colour | blue | orange | green | brown | grey | white |
| |  |  |  |  |  | |

Copper Conductors Colours:

| No. | 1 | 2 | 3 | 4 | 5 | 6 |
|--------|---|---|---|---|---|------|
| Colour | red | black | yellow | green | white | blue |
| |  |  |  |  |  | |

(1) Other colour set available upon agreement.

Sheath Colour:

The outer sheath colour is green.

Sheath Marking ⁽²⁾:

The outer sheath is marked in 1-meter intervals as follows:

PRYSMIAN SA <year> <number of fibres>FO HYBRID CABLE <length marking>

(2) Customized marking available upon agreement.

Logistic

Packing: Wooden drums with protection.

Standard Delivery Lengths ⁽³⁾: 1 km and 2km with a tolerance of - 1% / + 3%.

(3) Other delivery lengths available upon agreement.

All optical measurements in accordance with ITU-T G650 recommendations

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