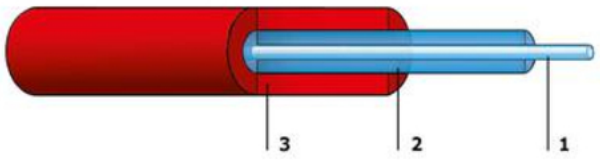
# Single-mode fibre, E9/125/250, OS2 / G.652.D BLO

**low attenuation, bend loss optimized**
in accordance with ITU-T G.652.D, compatible with ITU-T G.657.A1




**1 Core**
**2 Cladding**
**3 Coating**

## DESCRIPTION

Bend loss optimized (BLO) single-mode fibre with improved macrobending properties for the home connection and for the cabling in FTTH access networks (Fibre-to-the-home).
Full-spectrum single-mode fibre, suitable for the operating wavelengths in all FTTx networks.
Fully compatible with (and even exceeding) the standards ITU-T G.652.D and ITU-T G.657.A1.
Permitted bending radius: 15 mm up to 10 mm.

## APPLICATION

Home connection, FTTH access network, FTTx in-house cabling.

## OPTICAL PROPERTIES

| **Transmission characteristics** | | | | | |
|---|---|---|---|---|---|
| Wavelength | [nm] | 1310 | 1383 | 1550 | 1625 |
| Maximum attenuation (cabled) | [dB/km] | 0.34 | 0.34* | 0.21 | 0.23 |
| | | * post hydrogen aging performance | | | |
| Maximum Chromatic Dispersion | [ps/(nm x km)] | 3,5 | | 18 | 22 |
| Zero Dispersion Wavelength $\lambda_0$ | [nm] | $1304 \leq \lambda_0 \leq 1324$ | | | |
| Maximum Zero Dispersion Slope So | [ps/(nm$^2$ x km)] | 0.091 | | | |
| Mode-Field Diameter | [µm] | 9.2+/-0.4 | | 10.4+/-0.5 | |
| Maximum Cable Cutoff Wavelength λcc | [nm] | 1260 | | | |
| **Polarisation Mode Dispersion** | | | | | |
| PMD Link Design Value | [ps/√km] | ≤ 0.04 | | | |
| Max. individual fibre PMD | [ps/√km] | ≤ 0.1 | | | |
| Max. individual cable PMD | [ps/√km] | ≤ 0.2 | | | |
| Refractive index | | 1.4676 | | 1.4682 | |

## MECHANICAL PROPERTIES

| **Geometrical and mechanical characteristics** | | |
|---|---|---|
| Cladding diameter | [µm] | 125 +/- 0.7 |
| Maximum Core / Cladding Concentricity Error | [µm] | 0.5 |
| Maximum Cladding Non-Circularity | [%] | 0.7 |
| Coating diameter | [µm] | 242 +/- 5 |
| Maximum Cladding/Coating Concentricity Error | [µm] | 12 |
| Operating temperature range | [°C] | -60 up to +85 |
| Test load | [kpsi] | 100 |

## GENERAL PROPERTIES

**Macrobending characteristics**

| **Number of windings and bend radius** | **Wavelength** | **Max. induced attenuation** |
|---|---|---|
| 1 turn x 10 mm | 1550 nm | ≤ 0.50 dB |
| 1 turn x 10 mm | 1625 nm | ≤ 1.5 dB |
| 10 turns x 15 mm | 1550 nm | ≤ 0.05 dB |
| 10 turns x 15 mm | 1625 nm | ≤ 0.3 dB |
| 100 turns x 30 mm | 1625 nm | ≤ 0.01 dB |

## STANDARDS

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| | |
|---|---|
| Post hydrogen aging | IEC 60793-2-50-C.5 |
| Fiber specifications | ITU-T G.652.D, ITU-T G.657.A1, IEC 60793-2-50 Category B-652.D, B-657.A1 |

## VERSIONS

**Article No.**