

C23: General purpose multi mode 50 µm fibre

OM2 fibre for use at 850 nm and at 1300 nm

General and application

This fibre is a graded-index multimode fibre suitable for transmission speeds of up to 10 Gb/s. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850 and/or 1300 nm.

This fibre fulfils all requirements for an OM2 fibre

Standards and Norms

| | |
|------------------------------|---|
| IEC 60793-2-10 Category A1a; | EN 50173-1:2007 category OM2 |
| EN 60793-2-10: type A1a | ISO/IEC 11801:2002 category OM2. |
| ITU Recommendation G.651 | IEEE 802.3 - 2002. with amendment 802.3ae - 2002. |
| TIA/EIA-492 AAAB | ANSI/TIA/EIA-568.B.3 - 2000 |

Attenuation (of cable with fibres)

IEC 60793-1-40

| | |
|--|----------------|
| 850 nm | ≤ 2.7 dB/km |
| 1300 nm | ≤ 0.8 dB/km |
| Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths | Max. 0.2 dB/km |

Bandwidth

IEC 60793-1-41

| | |
|---------|--------------|
| 850 nm | 500 MHz • km |
| 1300 nm | 500 MHz • km |

Group index of refraction

IEC 60793-1-22

| | |
|--------------------------------------|-------|
| Group index of refraction at 850 nm | 1.482 |
| Group index of refraction at 1300 nm | 1.477 |

Other properties

IEC 60793-1-xx

| Attribute | Measurement method | Units | Limits |
|--|--------------------|-------|-------------------------------------|
| Core diameter | IEC/EN 60793-1-20 | µm | 50 ± 2.5 |
| Cladding diameter | IEC/EN 60793-1-20 | µm | 125.0 ± 1 |
| Cladding non-circularity | IEC/EN 60793-1-20 | % | ≤ 1.0 |
| Core non-circularity | IEC/EN 60793-1-20 | % | ≤ 5 |
| Core-cladding concentricity error | IEC/EN 60793-1-20 | µm | ≤ 1.5 |
| Primary coating diameter - uncoloured | IEC/EN 60793-1-21 | µm | 242 ± 0.7 |
| Primary coating diameter - coloured | IEC/EN 60793-1-21 | µm | 250 ± 15 |
| Primary coating non-circularity | IEC/EN 60793-1-21 | % | ≤ 5 |
| Primary coating-cladding concentricity error | IEC/EN 60793-1-21 | µm | ≤ 10 |
| Proof stress level | IEC/EN 60793-1-30 | GPa | ≥ 0.7 (≈ 1 %) |
| Typical average stripforce | IEC/EN 60793-1-32 | N | 1.7 |
| Strip force (peak) | IEC/EN 60793-1-32 | N | 1.3 ≤ F _{peak.strip} ≤ 8.9 |
| Numerical aperture | IEC/EN 60793-1-43 | | 0.200 ± 0.015 |