

Multimode OM3

Fibre type	50/125 μ m
OPK code	OM3
Optical Characteristics	
Attenuation coefficient Loose tube Cables (Typical / Maximum) ^(1,2)	
at 850 nm	2.2 / 3.5 dB/km
at 1300 nm	0.5 / 1.5 dB/km
Attenuation coefficient Tight Buffered Cables (Typical / Maximum) ^(1,2)	
at 850 nm	2.5 / 3.5 dB/km
at 1300 nm	0.6 / 1.5 dB/km
Attenuation discontinuity ⁽²⁾	≤ 0.2 dB
Zero dispersion wavelength	1295–1340 nm
Zero dispersion slope $1295 \leq \lambda_0 \leq 1310$ nm	≤ 0.105 ps/(nm ² ·km)
Zero dispersion slope $1310 \leq \lambda_0 \leq 1340$ nm	$\leq 0.000375 \cdot (1590 - \lambda_0)$ ps/(nm ² ·km)
Numerical Aperture	0.200 \pm 0.015
Effective group index of refraction at 850 nm	1.483
Effective group index of refraction at 1300 nm	1.478
Performance Characteristics	
Bandwidth (Overfilled launch) at 850 nm	≥ 1500 MHz·km
Bandwidth (Overfilled launch) at 1300 nm	≥ 500 MHz·km
Effective Modal Bandwidth (EMB) at 850 nm	≥ 2000 MHz·km
Transmission Link Lengths for 10 Gb/s ⁽³⁾ at 850 nm	300 m
Transmission Link Lengths for 10 Gb/s ⁽³⁾ at 1300 nm	300 m
Geometrical Characteristics	
Core diameter	50 \pm 2.5 μ m
Core non-circularity	≤ 5.0 %
Core/Cladding concentricity error	≤ 1 μ m
Cladding diameter	125.0 \pm 1.0 μ m
Cladding non-circularity	≤ 1.0 %
Primary coating diameter (uncoloured fibre)	242 \pm 7 μ m
Primary coating diameter (coloured fibre)	250 \pm 10 μ m
Coating-Cladding concentricity	≤ 10 μ m
Macrobending loss	
100 turns, mandrel radius 37.5 mm at 850 nm	≤ 0.05 dB
100 turns, mandrel radius 37.5 mm at 1300 nm	≤ 0.15 dB
2 turns, mandrel radius 7.5 mm at 850 nm	≤ 0.2 dB
2 turns, mandrel radius 7.5 mm at 1300 nm	≤ 0.5 dB
2 turns, mandrel radius 15 mm at 850 nm	≤ 0.1 dB
2 turns, mandrel radius 15 mm at 1300 nm	≤ 0.3 dB
Mechanical Characteristics	
Proof test level	≥ 0.69 GPa (≥ 8.8 N)
Coating strip force	1.9 N
Dynamic fatigue resistance parameter	≥ 23

(1) Unless stated otherwise directly in the cable specification

(2) Cabled fibre

(3) 850 nm operating wavelength with transmitters meeting encircled flux of ≤ 30 % @ radius 4.5 μ m and ≥ 86 % @ radius 19.0 μ m.

- Typical attenuation is the value measured for at least 90% of the fibers in the cable.
- OTDR measurement values can only be guaranteed for cable lengths of 1000 m and more.
- Cable on the reel may show a discontinuity of the OTDR curve caused by winding of the cable on the reel.
- The above values apply, unless otherwise stated directly in the cable specification