

✕ Internal External Grade

✕ Sequentially Metre Marked

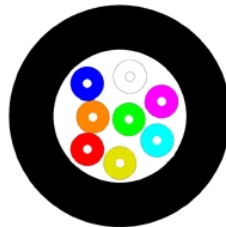
✕ 25 Year System Warranty

Features

- Internal External Grade
- 62.5/125 Multimode Fibre
- 200/600 MHz.km Bandwidth
- Cut to length service
- Sequentially Metre Marked
- LSOH Black Sheath
- Duct Grade
- 25 Year System Warranty

Product Overview

Excel tight buffered optical fibre cables have been designed specifically for internal and external applications. These compact, lightweight cables are extremely flexible and are quick and easy to install. The cables are constructed around swellable reinforced yarns as common strength members containing up to 24 colour coded 900µm tight buffered 62.5/125µm fibres, covered with a flame retardant, low smoke zero halogen, outer sheath.



Cores Colours

1. Red	2. Green	3. Blue	4. Yellow
5. White	6. Grey	7. Brown	8. Violet
9. Turquoise	10. Black	11. Orange	12. Pink
13. Yellow with mark every 70 mm	14. White with mark every 70 mm	15. Grey with mark every 70 mm	16. Turquoise with mark every 70 mm
17. Orange with mark every 70 mm	18. Pink with mark every 70 mm	19. Yellow with mark every 35 mm	20. White with mark every 35 mm
21. Grey with mark every 35 mm	22. Turquoise with mark every 35 mm	23. Orange with mark every 35 mm	24. Pink with mark every 35 mm

Physical Properties

Property	Test method	Value	
Permanent tensile strength	IEC 60974-1-2 E11	4, 6, 8 & 12 cores	500 N
		16 cores	1000 N
		24 cores	1500 N
Short term tensile strength (some days)	IEC 60974-1-2 E11	4, 6, 8 & 12 cores	1000 N
		16 cores	1400 N
		24 cores	1600 N
Maximum installation load (a few hours)		4, 6, 8 & 12 cores	1500 N
		16 cores	2100 N
		24 cores	2400 N
Impact	IEC 60974-1-2 E4		20 J
Crush (compressive strength)	IEC 60974-1-2 E3		3000 N / 100 mm
Torsion	IEC 60974-1-2 E7		5 cycles ± 1 turn
Temperature range	IEC 60974-1-2 F1	Operation & installation	-20°C to +70°C
		Storage	-40°C to +70°C

Property	4 Core	6 Core	8 Core	2 Core	16 Core	24 Core
Heat of combustion	760 MJ/km	845 MJ/km	970 MJ/km	1180 MJ/km	1400 MJ/km	1700 MJ/km
	0.21 KWh/m	0.23 KWh/m	0.29 KWh/m	0.33 KWh/m	0.39 KWh/m	0.47 KWh/m
Nominal diameter	6.5 mm	6.6 mm	7.0 mm	7.0 mm	8.0 mm	8.5 mm
Nominal cable weight	34 kg/km	36 kg/km	39 kg/km	43 kg/km	52 kg/km	63 kg/km
Minimum bend radius						
	Long term	100 mm	100 mm	100 mm	130 mm	130 mm
Short term	50 mm	50 mm	50 mm	75 mm	75 mm	115 mm

Property		
Fibre	Tight buffered fibres 900 µm ± 50 µm	
Strength member	E-Glass rovings	
Jacket	1.1 mm black, Halogen free, flame resistant thermoplastic sheathing compound acc. to EN 50290-2-27, UV stabilised	
Fire rating	IEC 60332-1-2	Single vertical wire test
	IEC 60754-1	No halogens
	IEC 60754-2	No acid matters
	IEC 61034-2	No dense smoke

Performance Properties

Cable attenuation	IEC 60793-1-40
Maximum attenuation value of cable at 850 nm	≤ 3.2 dB/km
Maximum attenuation value of cable at 1300 nm	≤ 1.0 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.2 dB/km

Bandwidth	IEC 60793-1-41
Overfilled (OFL) modal bandwidth at 850 nm	200 MHz.km
Overfilled (OFL) modal bandwidth at 1300 nm	600 MHz.km

Standards and Norms	
IEC 60793-2-10 Category A1b	EN 50173-1 category OM1
IBM™ Fibre Optic Channel Links; ESCON™	ISO / IEC 11801 category OM1
IEEE 802.3	TIA / EIA-492 AAAA
EN 60793-2-10: type A1b	ANSI / TIA / EIA-568-B.3

Property	Standard	Value
Core diameter	IEC / EN 60793-1-20	62.5 ± 2.5 µm
Core non-circularity	IEC / EN 60793-1-20	≤ 5 %
Cladding diameter	IEC / EN 60793-1-20	125.0 ± 1.0 µm
Cladding non-circularity	IEC / EN 60793-1-20	≤ 5 %
Core - cladding concentricity error	IEC / EN 60793-1-20	≤ 1.5 µm
Primary coating diameter - uncoloured	IEC / EN 60793-1-21	242 ± 7 µm
Primary coating diameter - coloured	IEC / EN 60793-1-21	250 ± 15 µm
Primary coating non-circularity	IEC / EN 60793-1-21	≤ 5 %
Primary coating - cladding concentricity error	IEC / EN 60793-1-21	≤ 10 µm
Group index of refraction:	IEC / EN 60793-1-22	
	at 850 nm	1.496
	at 1300 nm	1.491
Proof stress level	IEC / EN 60793-1-30	≥ 0.7 (≈ 1 % strain) Gpa
Typical average stripforce	IEC / EN 60793-1-32	1.7 N
Strip force (peak)	IEC / EN 60793-1-32	1.3 ≤ F _{peak.strip} ≤ 8.9 N
Numerical aperture	IEC / EN 60793-1-43	0.275 ± 0.015

Typical Applications

- 100BASE-FX ■ 1000BASE-SX ■ 1000BASE-LX ■ FDDI
- 155 Mbps ATM ■ 622 Mbps ATM ■ 531 Mbps Fibre Channel ■ 1062 Mbps Fibre Channel

Part Number Information

Part No.	Description
200-110	Internal/External Grade Tight Buffered Fibre Cable 4 Core 62.5/125 OM1
200-116	Internal/External Grade Tight Buffered Fibre Cable 6 Core 62.5/125 OM1
200-130	Internal/External Grade Tight Buffered Fibre Cable 8 Core 62.5/125 OM1
200-140	Internal/External Grade Tight Buffered Fibre Cable 12 Core 62.5/125 OM1
200-141	Internal/External Grade Tight Buffered Fibre Cable 16 Core 62.5/125 OM1
200-142	Internal/External Grade Tight Buffered Fibre Cable 24 Core 62.5/125 OM1

System Warranty

The Excel System Warranty provides a 25-year product and applications assurance of compliance with the industry performance standard appropriate to the class of cabling installed. The warranty may be applied for by an accredited Excel Partner who has designed, supplied and installed the said system.



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