



✕ 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	14. White	15. Grey	16. Turquoise
with mark every 70 mm	with mark every 70 mm	with mark every 70 mm	with mark every 70 mm
17. Orange	18. Pink	19. Yellow	20. White
with mark every 70 mm	with mark every 70 mm	with mark every 35 mm	with mark every 35 mm
21. Grey	22. Turquoise	23. Orange	24. Pink
with mark every 35 mm	with mark every 35 mm	with mark every 35 mm	with mark every 35 mm

Physical Properties

Property	Test method	Value
Permanent tensile strength	IEC 60794-1-2 E11	4, 6, 8 & 12 cores
		500 N
		16 cores
Short term tensile strength (some days)	IEC 60794-1-2 E11	1000 N
		16 cores
		1400 N
Maximum installation load (a few hours)		24 cores
		1600 N
		4, 6, 8 & 12 cores
		1500 N
		16 cores
		2100 N
		24 cores
		2400 N
Impact	IEC 60794-1-2 E4	20 J
Crush (compressive strength)	IEC 60794-1-2 E3	3000 N / 100 mm
Torsion	IEC 60794-1-2 E7	5 cycles ± 1 turn
Temperature range	IEC 60794-1-2 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	230 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
	IEC 60754-1
	IEC 60754-2
	IEC 61034-2
	Single vertical wire test
	No halogens
	No acid matters
	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 TM Fibre Optic Channel Links; ESCON TM	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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