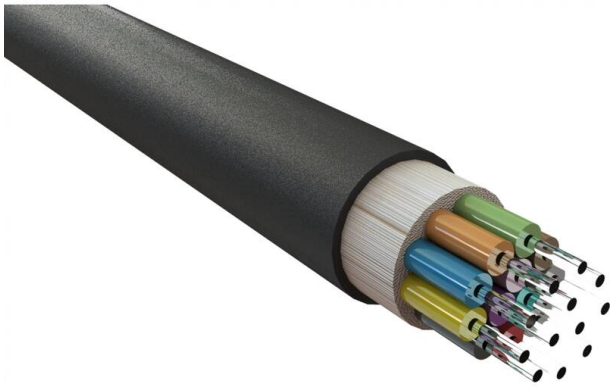
Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 6 Core 50/125 LSOH Cca Black

Item Code: 204-106



- Water resistant & UV resistant
- Duct grade - rodent resistant
- Sequentially metre marked
- Cut to length service
- Euroclass Cca-s1a-d0-a1
- 25 year system warranty
- CIBSE TM65 Embodied Carbon: 0.184 kg CO2e

Product Overview

Enbeam OM4 multimode fibre optic cable tight buffered 6 core 50/125 G.657.A2 bend insensitive LSOH Cca black, part of a huge range of OM4 Fibre optic cables fully stocked at Mayflex. Excel OM4 50/125 µm tight buffered optical fibre cables have been designed specifically for internal and external applications. The cables are constructed around an E-Glass strength member containing up to 24 colour coded 900 µm tight buffered fibres, covered with a flame retardant, low smoke zero halogen, outer sheath.

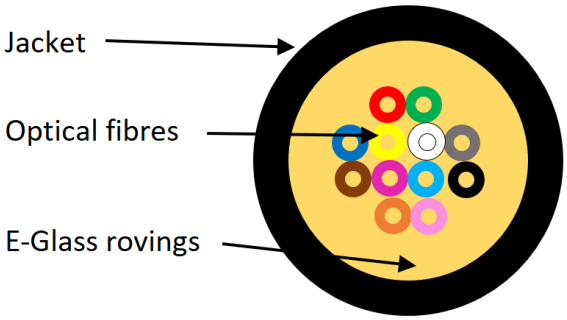
These compact, lightweight cables are extremely flexible and are quick and easy to install.

Product Specifications

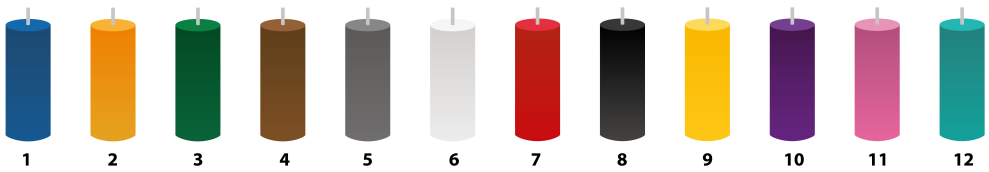
Feature	Values
Number of Cores	6
Type of tube	Tight
Fibre type	Multi mode 50/125
Category	OM4
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LS0H)
Outer sheath colour	Black
Flame retardant according to IEC 60332-1-2	yes

Low smoke (acc. IEC 61034-2)	yes
Reaction-to-fire class according to EN 13501-6	Cca
Smoke development class according to EN 13501-6	s1a
Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	a1
Outer diameter approx.	7 mm

Cross-section diagram



Colour coding (as per TIA-598-C)



For fibre core counts above 12 the colour sequence is repeated with the addition of a mark every 70mm for cores 13-24 and two marks for 25-36 and so on.

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Cable specifications

Features		Values
Tight Buffered Fiber	Material	LSZH
Diameter	0.85±0.05mm	
Strength Member	Material	E-glass Yarns
Sheath	Material	LSZH
Thickness	Typical 1.1mm	
Cable Diameter	Diameter (±0.3mm)	Approx. 6.5mm(4 cores), 6.6mm(6 cores), 7.0mm(8 cores)
	7.0mm(12 cores), 8.0mm(16 cores), 8.5mm(24 cores)	
Cable Weight		Approx. 34kg/km(4 cores), 36kg/km (6 cores), 39kg/km (8 cores)
	43kg/km (12 cores), 52kg/km (16 cores), 63kg/km (24 cores)	
Tensile Strength	Installation	800N(≤12 cores),1100N(>12 cores)
Working	400N(≤12 cores),550N(>12 cores)	
Cable Impact		1J
Crush Resistance	Installation	1000N
Working	300N	
Torsion		Change of Attenuation ≤ 0.10dB (SM fiber)
	Change of Attenuation ≤ 0.30dB (MM fiber)	
Temperature Range	Installation	-30°C to +60°C
Working	-30°C to +60°C	
Storage	-40°C to +60°C	
Bending Radius	Short term	20 x Diameter
Long term	10 x Diameter	

Fibre specifications

Features		Values
Attenuation	@850 nm	3.5dB/km (maximum)
@1300 nm	1.5dB/km (maximum)	
For any 1000 metre	Max. 0.1dB/km	
Overfilled modal bandwidth	@850 nm	≥3500 MHz/km
@1300 nm	≥500 MHz/km	
Effective modal bandwidth	@850 nm	≥4700 MHz/km
Core diameter		50±2.5 µm
Core non-circularity		≤5%
Cladding diameter		125.0±1.0 µm
Cladding non-circularity		≤1%
Core - cladding concentricity error		≤1.5 µm
Primary coating diameter - uncolored		242±7 µm
Primary coating diameter - colored		250±15 µm
Primary coating non-circularity		≤5%
Primary coating - cladding concentricity error		≤12 µm
Group index of refraction	@850 nm	1.482
@1300 nm	1.477	
Proof stress level		≥0.7(≈1% strain) Gpa
Typical average strip force		1.7 N
Strip force (peak)		1.3 ≤ Fpeak.strip ≤8.9 N
Numerical aperture		0.200 ± 0.015
Fiber bending loss R-7.5 mm	@850 nm	≤0.2dB
@1300 nm	≤0.5dB	
Fiber bending loss R-15 mm	@850 nm	≤0.1dB
@1300 nm	≤0.3dB	

Standards

Applicable standard	Subject
IEC 60794-2-20:2013	Optical fibre cables - Part 2-20: Indoor cables - Family specification for multi-fibre optical cables
IEC 60332-1-2:2004	Tests on electric and optical fibre cables under fire conditions. Test for vertical flame propagation for a single insulated wire or cable. Procedure for 1 kW pre-mixed flame
IEC 60754-2:2011	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 61034-2:2005+A1:2013	Measurement of smoke density of cables burning under defined conditions – Part 2: Test procedure and requirements
IEC 60793-1-1:2022	Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance
IEC 60793-2-10:2017	Sectional specification for A1 multimode fibres
IEC 60793-1-20:2014	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry
IEC 60793-1-21:2001	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry
IEC 60793-1-22:2001	Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement
IEC 60793-1-30:2010	Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test
IEC 60793-1-41:2010	Optical fibres - Part 1-41: Measurement methods and test procedures – Bandwidth
ITU G.651.1	Characteristics of a 50/125 µm multimode graded index optical fibre cable for the optical access network
EN 50173-1:2018	Information technology. Generic cabling systems - General requirements
EN 50575: 2014 + A1: 2016	Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements
EN 50399:2011+A1:2016	Common test methods for cables under fire conditions. Heat release and smoke production measurement on cables during flame spread test. Test apparatus, procedures, results
ISO/IEC 11801-1:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
ANSI/TIA 568-3.D	Optical Fiber Cabling and Components Standard

ANSI/TIA/EIA 598-D	Optical Fibre Cable Colour Coding
RoHS-II/-III (2011/65/EU & 2015/863): 2023	Our products, demonstrate full adherence to the regulatory stipulations of the EU Directive 2011/65/EU (RoHS-II) and its corresponding delegated directive 2015/863 (RoHS-III).
WFD: 2023	Compliant to Waste Framework Directive
SCIP: 2023	Compliant - Does Not Contain Substances of Concern In articles as such or in complex objects (Products)
POPs (EU) No 2019/1021	EU Regulation for the restriction of Persistent Organic Pollutants.

Part Number Table

Part Number	Description
204-104	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 4 Core 50/125 LSOH Cca Black
204-106	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 6 Core 50/125 LSOH Cca Black
204-108	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 8 Core 50/125 LSOH Cca Black
204-112	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 12 Core 50/125 LSOH Cca Black
204-116	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 16 Core 50/125 LSOH Cca Black
204-124	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 24 Core 50/125 LSOH Cca Black
204-124-RD	Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 24 Core 50/125 LSOH Cca Red