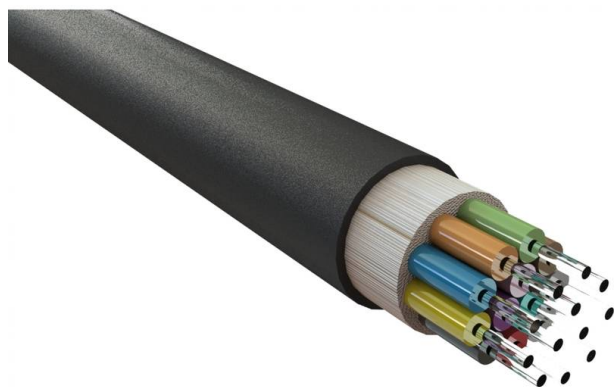


# Excel Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 12 Core 50/125 LSOH Cca Black

Item Code: 204-112

**excel**  
without compromise.



✕ Water resistant & UV resistant

✕ Duct grade - rodent resistant

✕ Sequentially metre marked

✕ Cut to length service

✕ Euroclass Cca-s1a-d0-a1

✕ 25 Year system warranty

## Product Overview

Enbeam OM4 Multimode Fibre Optic Cable Tight Buffered 12 Core 50/125 LSOH Cca Black, part of a huge range of OM4 fibre optic cables fully stocked at Mayflex.

Excel OM4 50/125µm 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 900µm 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	12
Type of tube	Tight
Fibre type	Multi mode 50/125
Category	OM4
Armouring	no
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LSOH)
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Cca

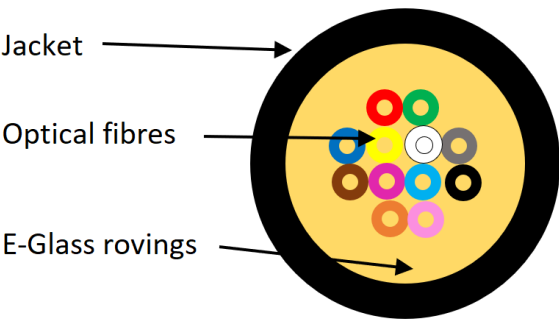
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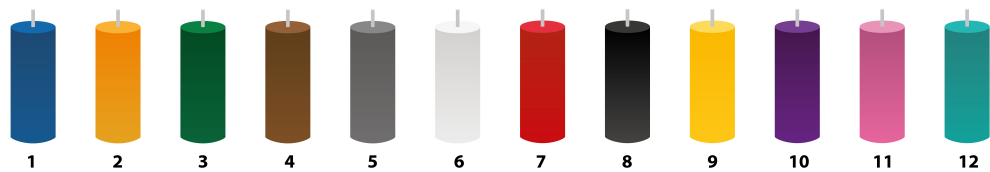


Smoke development class according to EN 13501-6	s1a
Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	a1
Halogen free (acc. EN 60754-1/2)	yes
Flame retardant	In accordance with EN 50399
Low smoke (acc. BS EN 61034-2)	yes
Outer diameter approx.	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

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## Fibre specifications

Features		Values
Attenuation	@850nm	3.5 dB/km(Maximum)
	@1300nm	1.5 dB/km(Maximum)
	For any 1000 metre	Max. 0.1dB/km
Overfilled Modal Bandwidth	@850nm	≥3500 MHz.km
	@1300nm	≥500 MHz.km
Effective Modal Bandwidth	@850nm	≥4700 MHz.km
Core Diameter		50±2.5um
Core Non-circularity		≤5%
Cladding Diameter		125.0±1.0um
Cladding Non-circularity		≤1%
Core - Cladding Concentricity Error		≤1.5um
Primary coating diameter - Uncolored		242±7um
Primary Coating Diameter - Colored		250±15um
Primary Coating Non-circularity		≤5%
Primary Coating - Cladding Concentricity Error		≤12um
Group Index of Refraction	@850nm	1.482
	@1300nm	1.477
Proof stress level		≥0.7(≈1% strain) Gpa
Typical Average Strip Force		1.7N
Strip force(peak)		1.3≤Fpeak.strip≤8.9N
Numerical Aperture		0.200±0.015
Fiber Bending Loss R-7.5mm	@850nm	≤0.2dB
	@1300nm	≤0.5dB
Fiber Bending Loss R-15mm	@850nm	≤0.1dB
	@1300nm	≤0.3dB

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## 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 60793-1-1:2017	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 $\mu$ m 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

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ANSI/TIA/EIA 598-D	Optical Fibre Cable Colour Coding
RoHS	Restriction of Hazardous Substances - Compliant
WFD	Compliant to Waste Framework Directive
SCIP	Compliant - Does Not Contain Substances of Concern in Products

## 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

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.

Contact us at [sales@excel-networking.com](mailto:sales@excel-networking.com)



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