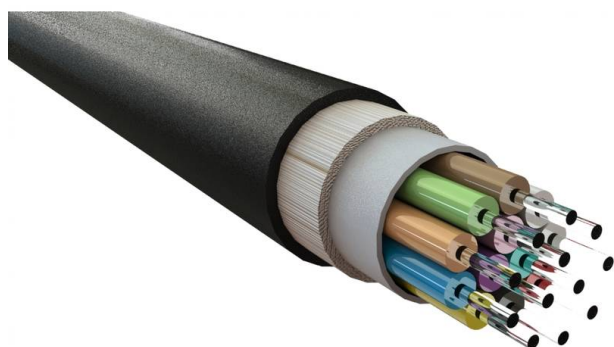


Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 4 Core 50/125 Dca Black

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excel
without compromise.



✕ Duct grade rodent resistant

✕ Cut to length service

✕ Sequentially metre marked

✕ 25 Year system warranty

✕ Euroclass Dca-s2-d2-a1

Product Overview

Excel OM3 50/125µm loose tube 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 a gel filled (non-dripping and silicon free) tube containing up to 24 colour coded 250µm primary coated fibres. This tube is covered with an E-Glass strength member.

Product Specifications

Feature	Values
Number of Cores	4
Type of tube	Loose tube
Number of fibres per tube	4
Fibre type	Multi mode 50/125
Category	OM3
Armouring	no
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LS0H)
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Dca
Smoke development class according to EN 13501-6	s2
Euro class flaming droplets/particles according to EN 13501-6	d2

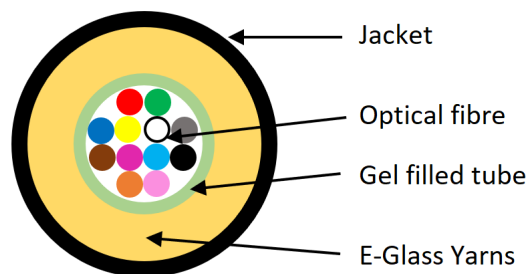
Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 4 Core 50/125 Dca Black

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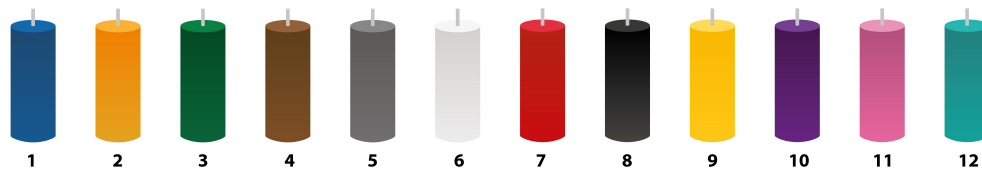


Euro class acidity according to EN 13501-6	a1
Halogen free (acc. EN 60754-1/2)	yes
Flame retardant	In accordance with EN 50399
Low smoke (acc. BS EN 61034-2)	yes
Outer diameter approx.	6 mm

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.

Cable specifications

Features		Values
Loose Tube	Material	PBT
	Diameter	2.8±0.1mm(2-12 cores), 3.5±0.20mm(16-24 cores)
	Thickness	0.35±0.05mm
Strength Member	Material	E-glass Yarns
Sheath	Material	LSZH

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	Thickness	Typical 1.1mm
Cable Diameter	Diameter ($\pm 0.3\text{mm}$)	$6.0 \pm 0.20\text{mm}$ (2-16 cores), $6.5 \pm 0.20\text{mm}$ (18-24 cores)
Cable Weight		Approx. 40kg/km (2-16 cores), 45kg/km (18-24 cores)
Tensile Strength	Installation	1000N
	Working	300N
Cable Impact		1J
Crush Resistance	Installation	1000N
	Working	300N
Torsion		Change of Attenuation $\leq 0.10\text{dB}$ (SM fiber)
		Change of Attenuation $\leq 0.30\text{dB}$ (MM fiber)
Temperature Range	Installation	-30°C to $+60^{\circ}\text{C}$
	Working	-30°C to $+60^{\circ}\text{C}$
	Storage	-40°C to $+60^{\circ}\text{C}$
Bending Radius	Short term	20 x Diameter
	Long term	10 x Diameter
Water Penetration		No water on free end

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	$\geq 1500\text{ MHz.km}$
	@1300nm	$\geq 500\text{ MHz.km}$
Effective modal bandwidth	@850nm	$\geq 2000\text{ MHz.km}$
Core Diameter		$50 \pm 2.5\mu\text{m}$
Core Non-circularity		$\leq 5\%$
Cladding Diameter		$125.0 \pm 1.0\mu\text{m}$
Cladding Non-circularity		$\leq 1\%$

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Core - Cladding Concentricity Error		≤1.0um
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

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

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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

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
200-149	Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 6 Core 50/125 Dca Black
200-150	Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 4 Core 50/125 Dca Black
200-151	Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 8 Core 50/125 Dca Black
200-152	Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 12 Core 50/125

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Dca Black

200-153

Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 16 Core 50/125
Dca Black

200-154

Excel Enbeam OM3 Multimode Fibre Optic Cable Loose Tube 24 Core 50/125
Dca 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



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