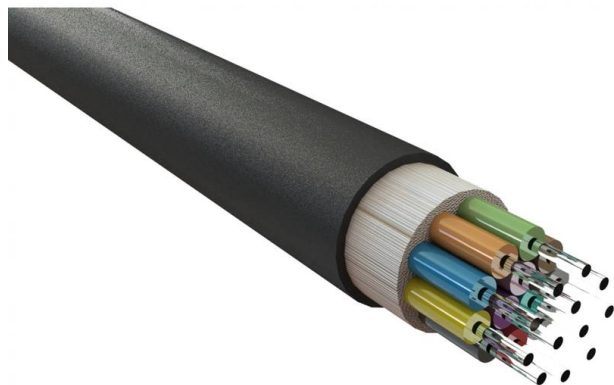


# Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 16 Core 9/125 Cca Black

Item Code: 205-326

**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 OS2 Singlemode Fibre Optic Cable Tight Buffered 16 Core 9/125 Cca Black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.

The singlemode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility.

The cables are constructed with up to 24 colour coded 900µm tight buffered fibres surrounded by an E Glass as a strength member and covered with low smoke zero halogen, outer sheath.

## Product Specifications

Feature	Values
Number of Cores	16
Type of tube	Tight
Fibre type	Single mode 9/125
Category	OS2
Armouring	no
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LS0H)
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Cca
Smoke development class according to EN 13501-6	s1a

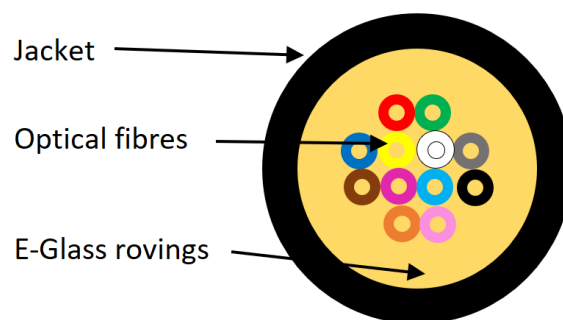
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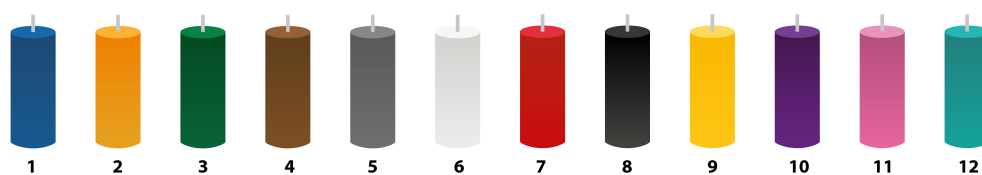


Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	a1
Halogen free (acc. EN 60754-1/2)	yes
Flame retardant	In accordance with EN 50399
Outer diameter approx.	8 mm

## 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
Tight Buffered Fiber	Material	LSZH
	Diameter	0.85±0.05mm
Strength Member	Material	E-glass Yarns

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Item Code: 205-326



Sheath	Material	LSZH
	Thickness	Typical 1.1mm
Cable Diameter	Diameter ( $\pm 0.3\text{mm}$ )	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( $\leq 12$ cores), 1100N( $> 12$ cores)
	Working	400N( $\leq 12$ cores), 550N( $> 12$ cores)
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°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	@1310nm	0.39 dB/km(Maximum)
	@1550nm	0.25dB/km(Maximum)
	For any 1000 metre	Max. 0.1dB/km
Reflex Index	@1310nm	1.467
	@1550nm	1.468
Cladding Diameter		125.0 $\pm$ 0.7 $\mu\text{m}$
Cladding Non-circularity		$\leq 1\%$

# Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 16 Core 9/125 Cca Black

Item Code: 205-326



Core - Cladding Concentricity Error		$\leq 0.6\mu\text{m}$
Primary Coating Diameter		$242 \pm 7\mu\text{m}$
Primary Coating Non-circularity		$\leq 5\%$
Primary Coating - Cladding Concentricity Error		$\leq 12\mu\text{m}$
Chromatic Dispersion Coefficient	In 1285-1330nm	$\leq 3.4\text{ps/km}\cdot\text{nm}$
	@1550nm	$\leq 18.0\text{ps/km}\cdot\text{nm}$
	@1625nm	$\leq 22.0\text{ps/km}\cdot\text{nm}$
Zero Dispersion Wavelength, $\lambda_0$		1300-1324nm
Zero Dispersion Slope		$\leq 0.092\text{ps}/(\text{km}\cdot\text{nm}^2)$
Cut-off Wavelength, $\lambda_{cc}$		$\leq 1260\text{nm}$
Mode Field Diameter	@1310nm	$9.0 \pm 0.5\mu\text{m}$
	@1550nm	$10.4 \pm 0.5\mu\text{m}$
Macro Bending Loss(100 turns)	25mm mandrel	$\leq 0.05\text{dB}@1310\text{nm}\&1550\text{nm}$
	30mm mandrel	$\leq 0.05\text{dB}@1625\text{nm}$
PMD Coefficient, Max. Uncabled		$\leq 0.5\text{ps}/\sqrt{\text{km}}$
PMDQ Link Design Value		$\leq 0.2\text{ps}/\sqrt{\text{km}}$
Proof Stress Level		$\geq 0.69\text{GPa}(\approx 1\%\text{ strain})$
Fibre Curl Radius		$\geq 4\text{m}$
Stripe Force(peak)		$1.3 \leq F_{\text{peak.strip}} \leq 8.9\text{N}$
Dynamic Fatigue Resistance Aged and Unaged		$\geq 20$
Static Fatigue Resistance		$\geq 23$

## Standards

Applicable standard	Subject
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 60754-2:2014+A1:2020	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 61034-2:2005+A2:2020	Measurement of smoke density of cables burning under

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Item Code: 205-326



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 60793-1-20:2014	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
ITU G.652.D	Characteristics of a single-mode optical fibre and cable
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
205-230	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 6 Core 9/125 LSZH Cca Black
205-320	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 4 Core 9/125 LSZH Cca Black
205-322	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 8 Core 9/125

# Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 16 Core 9/125 Cca Black

Item Code: 205-326



Cca Black

205-324	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 12 Core 9/125 Cca Black
205-326	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 16 Core 9/125 Cca Black
205-328	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 24 Core 9/125 Cca Black
205-328-YW	Excel Enbeam OS2 Singlemode Fibre Optic Cable Tight Buffered 24 Core 9/125 LSZH Cca Yellow

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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