

✖ G.657.A1 bend insensitive

✖ Rodent resistant

✖ Ultra-light weight design

✖ 7 mm cable diameter

✖ Euroclass: Fca

✖ PIA approved

✖ CIBSE TM65 Embodied Carbon: 0.239 kg CO₂e

Product Overview

Enbeam OS2 ultra-light weight SM G.657.A1 aerial fibre cable loose tube 96 core 9/125 HDPE Fca black, part of a huge range of OS2 Fibre optic cables fully stocked at Mayflex.

The Enbeam ultra-light weight fibre has been designed for aerial installations into the fibre access network.

The cable is constructed from multiple gel filled micromodules, overlaid with water swellable yarn and water blocking tape and then covered with a High Density Polyethylene (HDPE) outer jacket with yellow stripes containing 2 brass coated steel wire strength members and offers 4 to 96 fibre core counts.

Product Specifications

Feature	Values
Number of Cores	96
Type of tube	Loose tube
Number of fibres per tube	24
Fibre type	Single mode 9/125
Category	OS2
Outer sheath material	HDPE
Outer sheath colour	Black

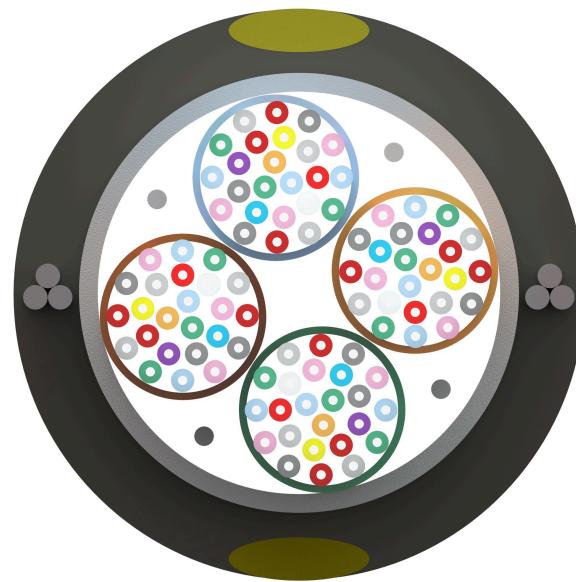
Reaction-to-fire class according to EN 13501-6

Fca

Outer diameter approx.

7 mm

Product drawing



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.

Fibre specifications

Features	Values
Attenuation	@1310 nm
	@1550 nm
	@1625 nm
Chromatic dispersion coefficient	1285 nm - 1330 nm
	@1550 nm
	1565 nm - 1625 nm
Zero dispersion wavelength - λ_0	1300-1324nm
Zero dispersion slope	$\leq 0.092 \text{ ps}/(\text{km}\cdot\text{nm}^2)$
Cut-off Wavelength - λ_{cc}	$\leq 1250 \text{ nm}$
Polarization mode dispersion	Individual fibre
	Design link value
Macro bending loss	100 turns, 50 mm radius
	100 turns, 60 mm radius
Cladding diameter	$125.0 \pm 0.7 \mu\text{m}$
Cladding non-circularity	$\leq 1.0\%$
Primary coating diameter	$242 \pm 5 \mu\text{m}$
Primary coating material	UV Cured Acrylite
Core - Cladding concentricity error	$\leq 0.5 \mu\text{m}$
Fibre curl radius	$\geq 4 \text{ m}$
Mode field diameter	@1310 nm
	@1550 nm
Weight (kg/km)	35.0 Kg/km (Nominal)
Embedding strength member	Dimension
	Type
Moisture Barrier	Type
Outer sheath	Material
	Thickness
	Strip marking width
Break load	HDPE
	1.3 mm (Nominal)
Break load	1.25 mm (Nominal)
	HDPE Yellow
Break load	1900 N

Tensile Strength	1250 N	
Crush Resistance	2000 N	
Minimum Bending Radius	During installation	20D
	After installation	10D
Voltage Test	Along power line, min vertical distance of 1.8 m	11 Kv

Resistance to wind/ice

80 kph wind	5 mm ice
0 kph wind	
Temperature	Installation
	Operation
	Storage

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 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 60793-1-20:2014	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

ITU-T G.657	Characteristics of a bending-loss insensitive 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-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
328-096	Excel Enbeam OS2 ULW Rodent Resistant G.657.A1 Aerial Fibre Cable LT 96 Core Fca Black

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