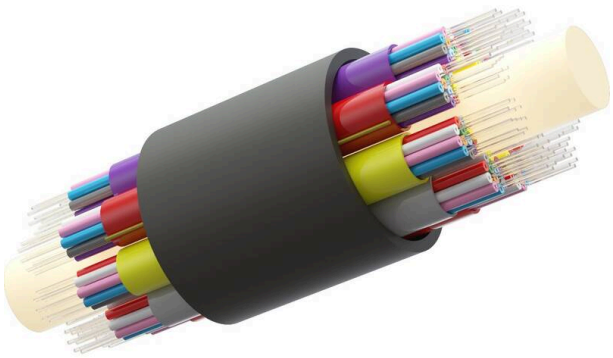
Excel Enbeam OS2 Micro Blown G.657.A1 Fibre Cable Loose Tube 96 Core HDPE Fca Black

Item Code: 325-096



- G.657.A1 bend insensitive
- 12 to 432 cores available
- Small light weight design
- Recommended internal duct size: 10 mm
- Euroclass: Fca
- High Density Polyethylene (HDPE) outer jacket
- CIBSE TM65 Embodied Carbon: 0.223 kg CO2e

Product Overview

Enbeam OS2 micro blown SM G.657.A1 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 micro blown fibre has been designed for blowing into the Enbeam micro-duct system.

The cable is constructed from multiple gel filled loose tubes around a central strength member, overlaid with water blocking yarn and covered with a High Density Polyethylene (HDPE) outer jacket.

The small diameter 5.3 mm to 12.2 mm allows high core count fibres to be blown into the access network down micro-duct with an inner diameter as small as 10 mm to 18 mm.

Please note this cable is used for blown systems only and should not be manually pulled into ducts.

Product Specifications

Feature	Values
Number of Cores	96
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Single mode 9/125
Category	OS2

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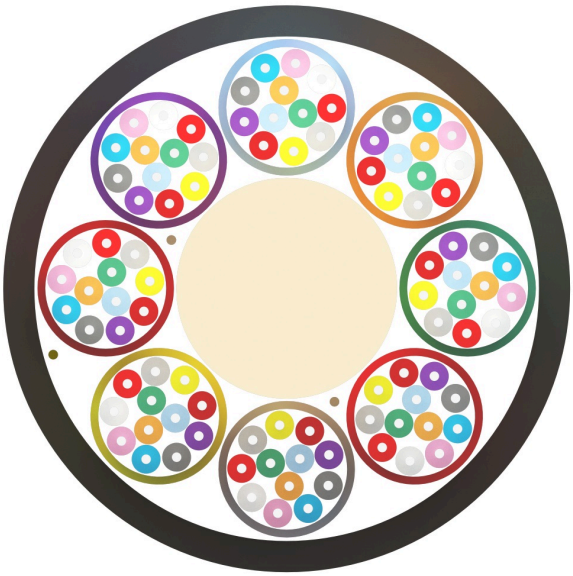
Outer sheath material	HDPE
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Fca
Outer diameter approx.	6.3 mm
Blown system	yes

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.

Cable specifications

Features		Values
Weight (kg/km)	48-72 core	23 (nominal)
	96-core	35 (nominal)
	144-core	52 (nominal)
	192-core	56 (nominal)
	288-core	81 (nominal)
	432-core	116 (nominal)
Loose tube material		PBT
Type of filling compound		Jelly
Number of loose tubes/fillers	48-core	4/2
	72-core	6/0
	96-core	8/0
	144-core	12/0
	192-core	16/2
	288-core	24/0
	432-core	18/0
Central strength member type		FRP
Tensile performance (N)	Long term	150 N
	Short term	450 N
Crush Resistance	Long term	150 N/100 mm
	Short term	450 N/100 mm
Minimum Bending Radius	During installation	20D
	After installation	10D
Temperature	Operating	-20°C to +70°C

Fibre specifications

Features		Values
Attenuation	@1310nm	≤0.38 dB/km
	@1383nm	≤0.38 dB/km
	@1550nm	≤0.26 dB/km
	@1625nm	≤0.26 dB/km
Chromatic Dispersion Coefficient	1285nm – 1330nm	≤3.5ps/km·nm
	@1550nm	≤18.0ps/km·nm
Zero Dispersion Wavelength, λ0		1300-1324nm
Zero Dispersion Slope		≤0.092 ps/(km·nm2)
Cut-off Wavelength, λcc		≤1260nm
Polarization mode dispersion	Individual fibre	≤0.2ps/√Km
	Design link value (M=20, Q=0.01%)	≤0.1ps/√Km
Macro Bending Loss	10 turns, 15mm radius	≤0.25dB@1550nm
		≤1.0dB@1625nm
	1 turns, 10mm radius	≤0.75dB@1550nm
		≤1.5dB@1625nm
Cladding Diameter		125.0±1.0μm
Cladding Non-circularity		≤1.0%
Primary Coating Diameter		250±15μm
Core Concentricity Error		≤0.6μm
Coating – Cladding Concentricity Error		≤12μm
Fibre Curl Radius		≥4m
Mode Field Diameter	@1310nm	9.2±0.4μm
Point discontinuity		≤0.05db
Proof Stress Level		≥100kpsi (0.69 GPa)
Coating strip force	Peak	1.3-8.9N

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

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