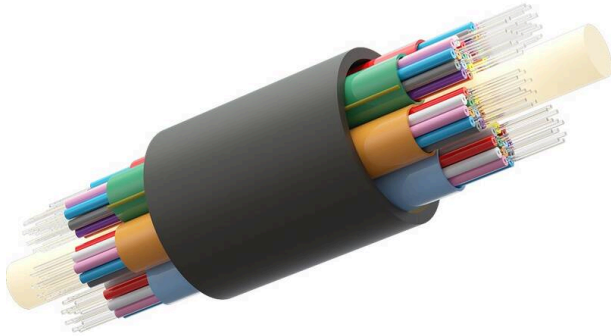


# Excel Enbeam OS2 Micro Blown G.657.A1 Fibre Cable Loose Tube 48 Core HDPE Fca Black

Item Code: 325-048



✕ 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: 0.148 kg CO2e

## Product Overview

Enbeam OS2 micro blown SM G.657.A1 fibre cable loose tube 48 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.

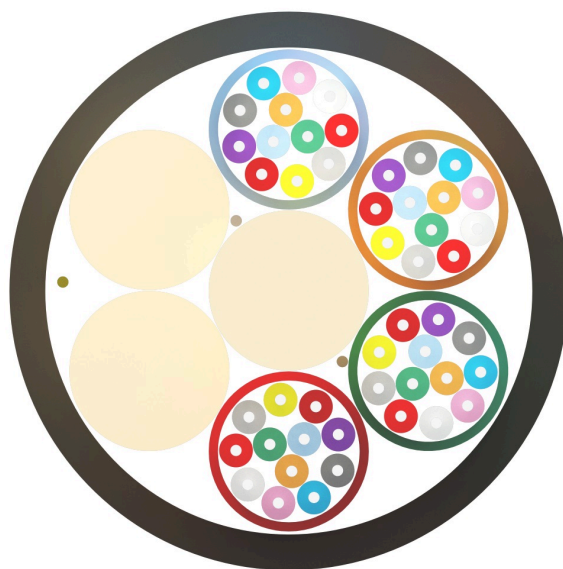
Please note this cable is used for blown systems only and should not be manually pulled into ducts.

## Product Specifications

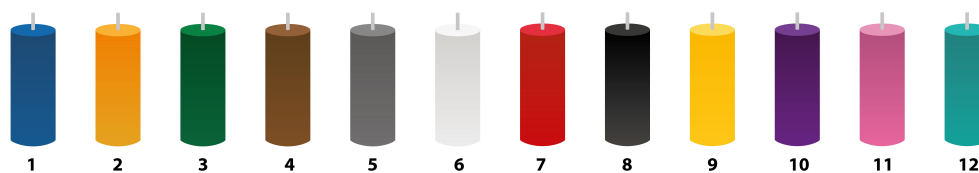
| Feature                   | Values            |
|---------------------------|-------------------|
| Number of Cores           | 48                |
| Type of tube              | Loose tube        |
| Number of fibres per tube | 12                |
| Fibre type                | Single mode 9/125 |
| Category                  | OS2               |

|  |        |
|--|--------|
| Outer sheath material                          | HDPE   |
| Outer sheath colour                            | Black  |
| Reaction-to-fire class according to EN 13501-6 | Fca    |
| Outer diameter approx.                         | 5.3 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, $\lambda_0$ |                       | 1300-1324nm                     |
| Zero Dispersion Slope                   |                       | ≤0.092 ps/(km·nm <sup>2</sup> ) |
| Cut-off Wavelength, $\lambda_{cc}$      |                       | ≤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 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  |
| 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.   |

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## Part Number Table

| Part Number | Description   |
|-------------|---|
| 325-048     | Excel Enbeam OS2 Micro Blown G.657.A1 Fibre Cable Loose Tube 48 Core HDPE Fca Black |

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