

✗ G.657.A1 Bend insensitive

✗ Rodent resistant

✗ Ultra-Light Weight Design

✗ 7mm cable diameter

✗ Euroclass Fca

✗ PIA Approved

## Product Overview

Enbeam OS2 Ultra-Light Weight SM G.657.A1 Aerial Fibre Cable Loose Tube 36 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 48 fibre core counts.

## Product Specifications

| Feature  | Values            |
|--|-------------------|
| Number of Cores                                | 36                |
| 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.                         | 7 mm              |

Excel Enbeam OS2 ULW Rodent Resistant G.657.A1  
Aerial Fibre Cable LT 36 Core Fca Black

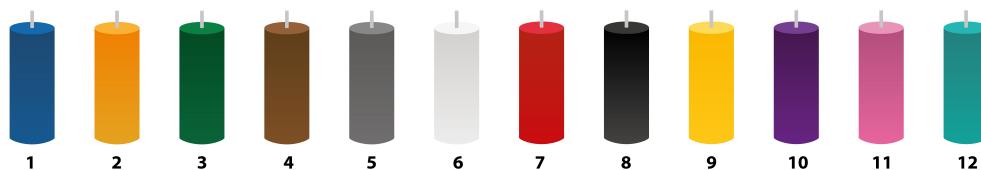
Item Code: 328-036

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without compromise.

**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                              | @1310nm                         | ≤0.35 dB/km         |
|  | @1550nm                         | ≤0.21 dB/km         |
|  | @1625nm                         | ≤0.23 dB/km         |
| Chromatic dispersion coefficient         | 1285nm - 1330nm                 | ≤3.5ps/km·nm        |
|  | @1550nm                         | ≤18.0ps/km·nm       |
|  | 1565nm - 1625nm                 | ≤22.0ps/km·nm       |
| Zero dispersion wavelength - $\lambda_0$ | 1302-1324nm                     |                     |
| Zero dispersion slope                    | ≤0.092 ps/(km·nm <sup>2</sup> ) |                     |
| Cut-off Wavelength - $\lambda_{cc}$      | 1100-1320nm                     |                     |
| Polarization mode dispersion             | Individual fibre                | ≤0.1ps/Vkm          |
|  | Design link value               | ≤0.04ps/Vkm         |
| Macro bending loss                       | 100 turns, 50mm radius          | ≤0.05dB@1310/1550nm |
|  | 100 turns, 60mm radius          | ≤0.05dB@1625nm      |
| Cladding diameter                        | 125.0±0.7μm                     |                     |
| Cladding non-circularity                 | ≤1.0%                           |                     |
| Primary coating diameter                 | 242±5μm                         |                     |
| Primary coating material                 | UV Cured Acrylite               |                     |
| Core - Cladding concentricity error      | ≤0.5μm                          |                     |
| Coating - Cladding concentricity error   | ≤12μm                           |                     |
| Fibre curl radius                        | ≥4m                             |                     |
| Mode field diameter                      | @1310nm                         | 9.2±0.4μm           |

|                    |          |                |
|--------------------|----------|----------------|
|                    | @1550 nm | 10.4±0.5µm     |
| Proof stress level |          | 1.0% (100kpsi) |

### Cable specifications

| Features                  | Values  |
|---------------------------|---|
| Weight (kg/km)            | 4-48 core<br>40.0 (nominal)                               |
| Number of fillers         | 4-12 core<br>2  |
|                           | 24-core<br>1  |
|                           | 36-48 core<br>0   |
| Embedding strength member | Dimension<br>3 x 0.32 mm                                  |
|                           | Type<br>Brass Coated Steel Wire                           |
| Moisture Barrier          | Type<br>Water Blocking Yarn & Water Swellable Tape        |
| Outer sheath              | Material<br>HDPE  |
|                           | Thickness<br>1.6 mm (nominal)                             |
|                           | Strip marking width<br>1.25 mm (nominal)                  |
|                           | Strip marking type<br>HDPE Yellow                         |
| Break load                | 1900 N  |
| Tensile Strength          | 1250 N  |
| Crush Resistance          | 2000 N  |
| Minimum Bending Radius    | During installation<br>20D                                |
|                           | After installation<br>10D                                 |
| Voltage Test              | Along power line, min vertical distance of 1.8 m<br>11 Kv |
| Resistance to wind/ice    | 97 kph wind<br>No ice                                     |
|                           | 80 kph wind<br>5 mm ice                                   |
|                           | 0 kph wind<br>10 mm ice                                   |
| Temperature               | Installation<br>-10°C to +60°C                            |
|                           | Operation<br>-30°C to +70°C                               |
|                           | Storage<br>-40°C to +70°C                                 |

## 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  |
|-------------|--|
| 328-036     | Excel Enbeam OS2 ULW Rodent Resistant G.657.A1 Aerial Fibre Cable LT 36 Core Fca Black |

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