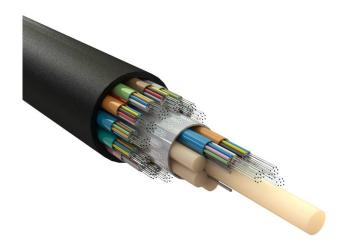


Item Code: 328-432









| ★ G.657.A1 Bend insensitive   |                        |       |       |        |         |
|-------------------------------|------------------------|-------|-------|--------|---------|
| X (- no / A) Rena incensitive | $\sim \epsilon \Gamma$ | 7 / 1 |       |        | illi.   |
|                               | 1- nn                  | / A I |       | Incenc | 41874/5 |
|                               | $-$ 0.0 $^{\prime}$    | ·/\_  | DUITE |        |         |

X High core count

X Small light weight design

X Recommended internal duct size - 14mm

X Euroclass Fca

X High Density Polyethylene (HDPE) outer jacket

#### **Product Overview**

Enbeam OS2 micro blown SM G.657.A1 200  $\mu$ m fibre cable loose tube 432 core 9/125 HDPE Fca black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.

The Enbeam Micro Blown 200 µm 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 6.2mm to 9.6mm allows high core count fibres to be blown into the access network down micro-duct with an inner diameter as small as 10 to 14 mm.

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

#### **Product Specifications**

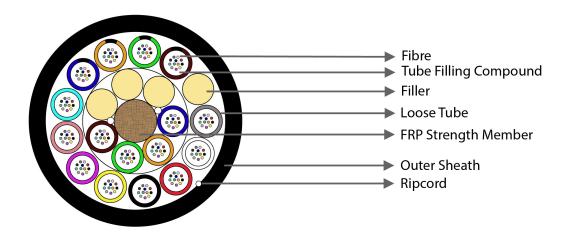
| Feature  | Values            |
|--|-------------------|
| Number of Cores                                | 432               |
| Type of tube                                   | Loose tube        |
| Number of fibres per tube                      | 24                |
| Fibre type                                     | Single mode 9/125 |
| Category                                       | OS2               |
| Outer sheath material                          | HDPE              |
| Outer sheath colour                            | Black             |
| Reaction-to-fire class according to EN 13501-6 | Fca               |



Item Code: 328-432

| Outer diameter approx. | 9.8 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) | 144-core | 46 (nominal) |
|                | 192-core | 51 (nominal) |
|                | 288-core | 65 (nominal) |
|                | 432-core | 79 (nominal) |



Item Code: 328-432

| Loose tube material           |            | PBT            |
|-------------------------------|------------|----------------|
| Type of filling compound      |            | Jelly          |
| Number of loose tubes/fillers | 144-core   | 12/0           |
|                               | 192-core   | 16/4           |
|                               | 288-core   | 24/0           |
|                               | 432-core   | 18/0           |
| Central strength member type  |            | FRP            |
| Tensile performance (N)       | long term  | 0.15G          |
|                               | short term | 0.5G           |
| Crush Resistance              | long term  | 150 N/100mm    |
|                               | short term | 450 N/100mm    |
| Minimum Bending Radius        | short term | 10D            |
|                               | long term  | 20D            |
| Temperature                   | operating  | -20°C to +70°C |
|                               |            |                |

### **Fibre specifications**

| Features                         |                                   | Values             |
|----------------------------------|-----------------------------------|--------------------|
| Attenuation                      | @1310nm                           | ≤0.4 dB/km         |
|                                  | @1383nm                           | ≤0.4 dB/km         |
|                                  | @1550nm                           | ≤0.30 dB/km        |
|                                  | @1625nm                           | ≤0.30 dB/km        |
| Chromatic Dispersion Coefficient | 1288nm - 1339nm                   | ≤3.5ps/km·nm       |
|                                  | 1271nm - 1360nm                   | ≤5.3ps/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      |



Item Code: 328-432

|   | 1 turns, 10mm radius | ≤0.75dB@1550nm      |
|---|----------------------|---------------------|
|   |                      | ≤1.5dB@1625nm       |
| Cladding Diameter                         |                      | 125.0±1.0μm         |
| Cladding Non-circularity                  |                      | ≤1.0%               |
| Primary Coating Diameter                  |                      | 200±15μm            |
| Core Concentricity Error                  |                      | ≤0.6µm              |
| Coating - Cladding Concentricity<br>Error |                      | ≤12μm               |
| Fibre Curl Radius                         |                      | ≥4m                 |
| Mode Field Diameter                       | @1310nm              | 8.6-9.5±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 -<br>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.<br>Heat release and smoke production measurement on                                |
|                           |  |



Item Code: 328-432

|  | 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   |
|-------------|---|
| 328-144     | Excel Enbeam OS2 Micro Blown G.657.A1 200 ?m Fibre Cable Loose Tube 144 Core HDPE Fca Black |
| 328-288     | Excel Enbeam OS2 Micro Blown G.657.A1 200 ?m Fibre Cable Loose Tube 288 Core HDPE Fca Black |
| 328-432     | Excel Enbeam OS2 Micro Blown G.657.A1 200 ?m Fibre Cable Loose Tube 432 Core HDPE Fca Black |

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

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