

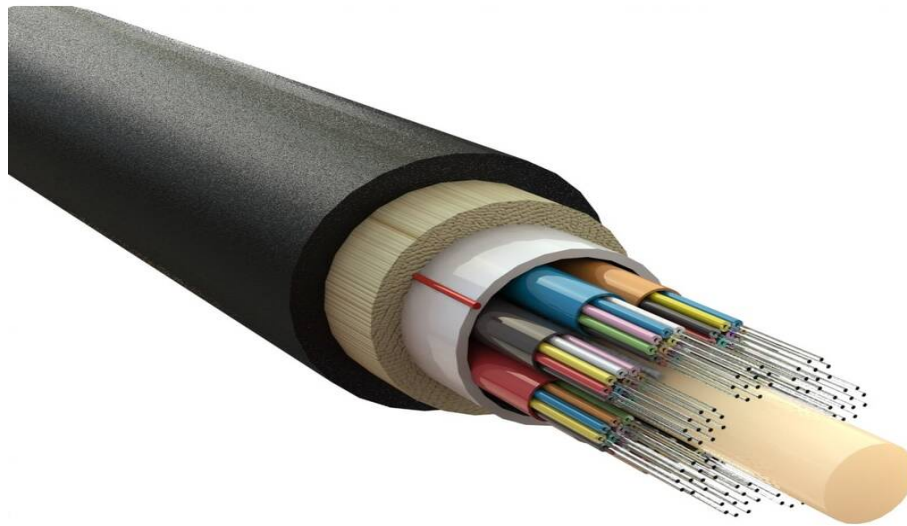
Excel Enbeam OS2 Singlemode Int/Ext Distribution Cable G.652.D 250 µm 48 Core B2ca Black

excel
without compromise.

Part Code: 295-314

sales@excel-networking.com
excel-networking.com

CIBSE TM65 Embodied Carbon: 0.245 kg CO2e



Main Features

- / Water resistant
- / Duct grade
- / Sequentially metre marked
- / Cut to length service
- / Euroclass: B2ca-s1b,d0,a1
- / 25 year system warranty

Product Overview

Excel Enbeam OS2 distribution cables have been designed specifically for internal and external applications. The single mode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility.

The cables are constructed using multiple LSOH sub cables with 12x coloured 250 µm fibres surrounded by aramid yarn and water blocking yarn which are then wrapped with water blocking tape around a central FRP strength member.

This allows the cable to be used in both external and internal applications with a Euroclass rating of B2ca.

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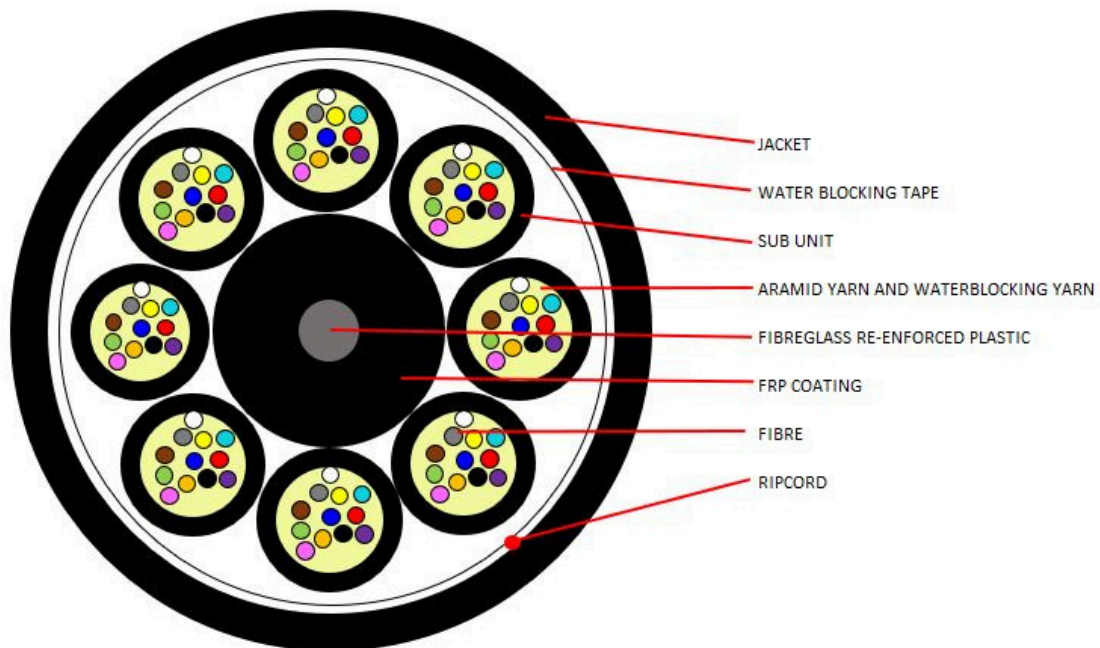
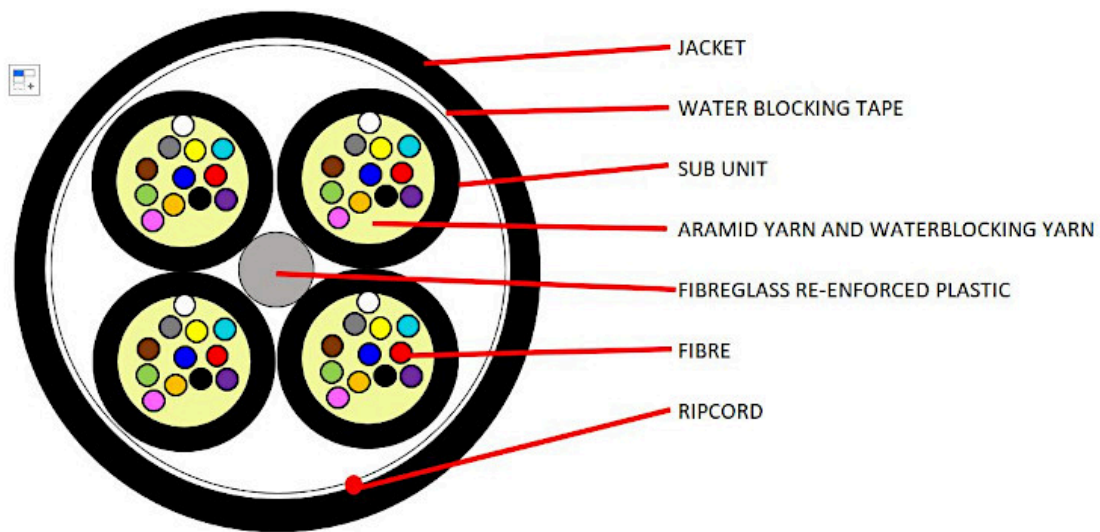
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Product Specifications

| Feature | Values |
|---|---------------------------------|
| Number of Cores | 48 |
| Type of tube | Sub unit |
| Number of fibres per tube | 12 |
| Fibre type | Single mode 9/125 |
| Category | OS2 |
| Rodent resistant | no |
| Outer sheath material | Copolymer, thermoplastic (LSOH) |
| Outer sheath colour | Black |
| Reaction-to-fire class according to EN 13501-6 | B2ca |
| Smoke development class according to EN 13501-6 | s1b |
| Euro class flaming droplets/particles according to EN 13501-6 | d0 |
| Euro class acidity according to EN 13501-6 | a1 |
| Outer diameter approx. | 9.2 mm |

Product drawing



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Cable specifications

| Features | | Values |
|------------------------------|---------------------|-------------------------------------|
| Tensile strength | Long term | 400N |
| | Short term | 1320N |
| Crush resistance | Long term | 200N/m |
| | Short term | 1000N/m |
| Torsion | | ± 180° |
| Impact | | 1N/m |
| Temperature performance | Installation | -30°C to +70°C |
| | Operation | -30°C to +70°C |
| | Storage | -30°C to +70°C |
| Sub units | | 4 |
| Sub unit OD | | 3.0 ± 0.1mm |
| Sub unit thickness | | 0.45 ± 0.05mm |
| Sub unit material | | LSZH |
| Number of fibre per sub unit | | 12 |
| Peripheral Strength member | | Aramid Yarn |
| Central strength member | | FRP |
| Water blocking | | Water blocking tape and yarn |
| Outer sheath | | |
| | Material | LSZH |
| Ripcord | Number | 1 |
| | Material | Polyester |

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| | | |
|-----------------------------------|-------------------|----------------------|
| Bending radius | Short term | 20 x Diameter |
| | Long term | 10 x Diameter |
| Attenuation | @1310nm | ≤ 0.40 dB/km |
| | @1550 nm | ≤ 0.30 dB/km |
| Core Cladding concentricity error | | ≤ 0.6 µm |
| Cladding diameter | | 125 ± 1 µm |
| Cladding non-circularity | | ≤ 1 % |
| Coating diameter | | 250 ± 10 µm |

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 |

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|------------------------------------|--|
| | 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 |
| 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 |
| Directive 2011/65/EU (RoHS II) | Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — compliant. Applies within EU member states). |
| Directive (EU) 2015/863 (RoHS III) | Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant. |
| Directive 2008/98/EC (WFD) | Waste Framework Directive — compliant. Implemented in the UK through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988). |
| ECHA SCIP Database | Compliant; product does not contain SVHCs (Substances of Very High Concern) as defined under REACH Article 33(1). Submission obligations met under EU REACH and UK REACH. |
| Regulation (EU) 2019/1021 (POPs) | EU Regulation on Persistent Organic Pollutants — compliant. For Great Britain, compliance is aligned with the Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020 (SI 2020 No. 1355). |
| UK SI 2012 No. 3032 | The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment |

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Regulations 2012 (UK RoHS) — compliant for Great Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.

Part Code Table

| Part Code | Description |
|-----------|--|
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