

Enbeam OM4 Multimode 50/125 4 Core Fibre Optic Cable Tight Buffered Cca - Black

Item Code: 204-104

excel
without compromise.



✕ Duct grade rodent resistant

✕ Cut to length service

✕ Sequentially metre marked

✕ 25 Year system warranty

✕ Euroclass Cca-s1a-d0-a1

Product Overview

Excel OM4 50/125m tight buffered optical fibre cables have been designed specifically for internal and external applications. These compact, lightweight cables are extremely flexible and are quick and easy to install.

The cables are constructed around an E-Glass strength member containing up to 24 colour coded 900µm tight buffered fibres, covered with a flame retardant, low smoke zero halogen, outer sheath.

The print legend on the cable now includes information regarding the DOP number, Test and Classification of the cable for traceability.

Product Specifications

| Feature | Values |
|---|-------------------|
| Number of Cores | 4 |
| Type of tube | Tight |
| Fibre type | Multi mode 50/125 |
| Category | OM4 |
| Outer sheath material | Copolymer |
| Outer sheath colour | Black |
| Reaction-to-fire class according to EN 13501-6 | Cca |
| Smoke development class according to EN 13501-6 | s1a |
| Euro class flaming droplets/particles according to EN 13501-6 | d0 |
| Euro class acidity according to EN 13501-6 | a1 |

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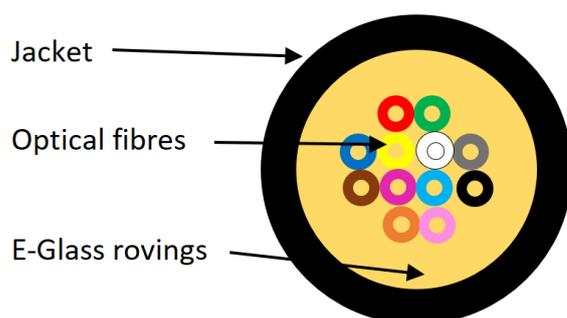
Flame retardant

In accordance with EN 50399

Outer diameter approx.

6.5 mm

Cross-section diagram



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 |
|----------------------|-------------------|--|
| Tight Buffered Fiber | Material | LSZH |
| | Diameter | 0.85±0.05mm |
| Strength Member | Material | E-glass Yarns |
| Sheath | Material | LSZH |
| | Thickness | Typical 1.1mm |
| Cable Diameter | Diameter (±0.3mm) | Approx. 6.5mm(4 cores), 6.6mm(6 cores), 7.0mm(8 cores) |

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| | | |
|-------------------|--------------|--|
| | | 7.0mm(12 cores), 8.0mm(16 cores), 8.5mm(24 cores) |
| Cable Weight | | Approx. 34kg/km(4 cores), 36kg/km (6 cores), 39kg/km (8 cores) |
| | | 43kg/km (12 cores), 52kg/km (16 cores), 63kg/km (24 cores) |
| Tensile Strength | Installation | 800N(≤ 12 cores), 1100N(> 12 cores) |
| | Working | 400N(≤ 12 cores), 550N(> 12 cores) |
| Cable Impact | | 1J |
| Crush Resistance | Installation | 1000N |
| | Working | 300N |
| Torsion | | Change of Attenuation ≤ 0.10 dB (SM fiber) |
| | | Change of Attenuation ≤ 0.30 dB (MM fiber) |
| Temperature Range | | -30°C to +60°C |
| | | -30°C to +60°C |
| | | -40°C to +60°C |
| Bending Radius | Short term | 20 x Diameter |
| | Long term | 10 x Diameter |

Fibre specifications

| Features | | Values |
|----------------------------|--------------------|-------------------------|
| Attenuation | @850nm | 3.0 dB/km(Maximum) |
| | @1310nm | 1.0 dB/km(Maximum) |
| | For any 1000 metre | Max. 0.1dB/km |
| Overfilled Modal Bandwidth | @850nm | ≥ 3500 MHz.km |
| | @1300nm | ≥ 500 MHz.km |
| Effective Modal Bandwidth | | ≥ 4700 MHz.km |
| Core Diameter | | 50 \pm 2.5 μ m |
| Core Non-circularity | | $\leq 5\%$ |
| Cladding Diameter | | 125.0 \pm 1.0 μ m |
| Cladding Non-circularity | | $\leq 1\%$ |

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|--|---------|----------------------|
| Core - Cladding Concentricity Error | | ≤1.5um |
| Primary coating diameter - Uncolored | | 242±7um |
| Primary Coating Diameter - Colored | | 250±15um |
| Primary Coating Non-circularity | | ≤5% |
| Primary Coating - Cladding Concentricity Error | | ≤12um |
| Group Index of Refraction | @850nm | 1.482 |
| | @1300nm | 1.477 |
| Proof stress level | | ≥0.7(≈1% strain) Gpa |
| Typical Average Stripe Force | | 1.7N |
| Stripe force(peak) | | 1.3≤Fpeak.strip≤8.9N |
| Numerical Aperture | | 0.200±0.015 |
| Fiber Bending Loss R-7.5mm | @850nm | ≤0.2dB |
| | @1300nm | ≤0.5dB |
| Fiber Bending Loss R-15mm | @850nm | ≤0.1dB |
| | @1300nm | ≤0.3dB |

Standards

| Applicable standard | Subject |
|--------------------------|--|
| IEC 60794-2-20:2013 | Optical fibre cables - Part 2-20: Indoor cables - Family specification for multi-fibre optical cables |
| 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 60754-2:2011 | Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity |
| IEC 61034-2:2005+A1:2013 | Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements |
| IEC 60793-1-1:2017 | Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance |
| IEC 60793-2-10:2017 | Sectional specification for A1 multimode fibres |
| IEC 60793-1-20:2014 | Optical fibres - Part 1-20: Measurement methods and test |

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|---------------------------|---|
| | 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.651.1 | Characteristics of a 50/125 µm multimode graded index optical fibre cable for the optical access network |
| EN 50173-1:2011 | 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 | Restriction of Hazardous Substances - Compliant |

Part Number Table

| Part Number | Description |
|-------------|--|
| 204-104 | EXCEL OM4 4C 50/125 TIGHT BUFFERED Cca |

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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