

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

excel  
without compromise.

Part Code: 205-342

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

CIBSE TM65 Embodied Carbon: 1.245 kg CO2e



## Main Features

- / Duct grade - rodent resistant
- / UV Resistant
- / 25 Year system warranty
- / Sequentially metre marked
- / Cut to length service
- / Euroclass Eca

## Product Overview

Excel steel wire (SWA) OM1 62.5/125 µm armoured loose tube optical fibre cables have been designed specifically for direct burial and the most demanding of installations.

These cables are constructed from standard single loose tube cables which are then packed into a flexible but strong fibreglass water blocking strength member. An internal sheath of material is then applied, a rip cord is inserted under this sheath to ease cable stripping. Lengths of steel wire armouring are then applied and an oversheath is added.

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

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

## Product Specifications

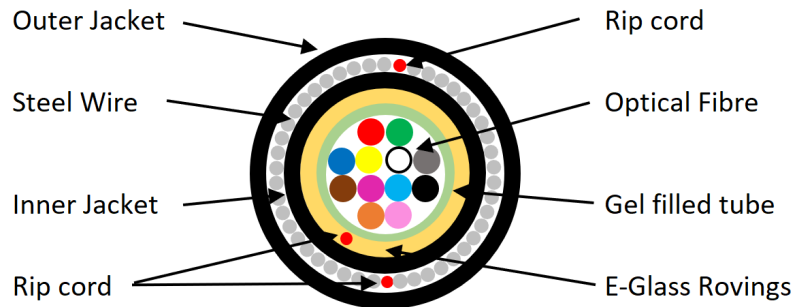
Feature	Values
Number of Cores	8
Type of tube	Loose tube
Number of fibres per tube	8
Fibre type	Multi mode 62.5/125
Category	OM1
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LSOH)
Outer sheath colour	Black
Longitudinal water blocking cable	yes
Flame retardant according to IEC 60332-1-2	yes
Reaction-to-fire class according to EN 13501-6	Eca
Outer diameter approx.	10.5 mm

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

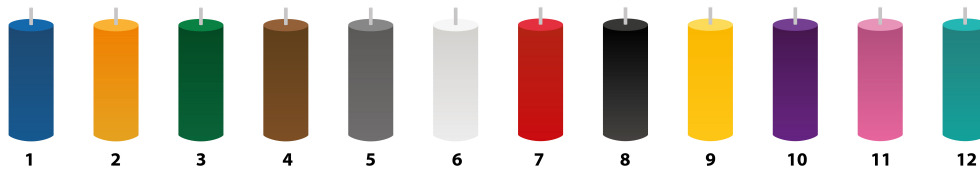
Part Code: 205-342

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

## 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
Tensile Strength	3000 N
Crush Resistance	1500 N/m
Torsion	± 180°
Temperature performance	<b>Installation</b> -30°C to +70°C
	<b>Operation</b> -30°C to +70°C

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

	<b>Storage</b>	<b>-30°C to +70°C</b>
Loose tubes	<b>Number</b>	<b>1</b>
	<b>Material</b>	<b>PBT</b>
Loose Tube ID/OD	<b>4-16 Cores</b>	<b>2.2/3.2 ± 0.1 mm</b>
	<b>24 Cores</b>	<b>2.6/3.5 ± 0.1 mm</b>
Peripheral Strength Member		<b>Glass Yarn</b>
Armoring	<b>Thickness</b>	<b>0.8 mm</b>
	<b>Material</b>	<b>Soft Zinc Coated Steel Wires</b>
Outer Sheath	<b>Thickness</b>	<b>1.4 mm (Nominal)</b>
	<b>Material</b>	<b>LSZH</b>
Ripcord	<b>Number</b>	<b>3</b>
	<b>Material</b>	<b>Polyester</b>
Overall Cable Diameter	<b>4-16 Cores</b>	<b>10.0 ± 0.5 mm</b>
	<b>24 Cores</b>	<b>10.5 ± 0.5 mm</b>
Cable Weight	<b>4-16 Cores</b>	<b>165 ± 15 kg/km</b>
	<b>24 Cores</b>	<b>180 ± 15 kg/km</b>
Bending Radius	<b>Short term</b>	<b>20 x Diameter</b>
	<b>Long term</b>	<b>10 x Diameter</b>

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

## Fibre specifications

Features		OM1	OM2
Attenuation	@850 nm	≤ 3.0 dB/km	≤ 2.7 dB/km
	@1300 nm	≤ 1.0 dB/km	≤ 0.8 dB/km
Bandwidth	@850 nm	≥ 200 MHz.km	≥ 500 MHz.km
	@1300 nm	≥ 600 MHz.km	≥ 550 MHz.km
Core Diameter		62.5 ± 2.5 µm	50 ± 2.5 µm
Core Cladding Concentricity Error		≤ 1 µm	≤ 1 µm
Cladding Diameter		125 ± 1 µm	125 ± 1 µm
Cladding Non-circularity		≤ 1 %	≤ 1 %
Coating Diameter (Coloured)		250 ± 15 µm	250 ± 15 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 60754-2:2011	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

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

IEC 60793-1-1:2022	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 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
IEC 60793-1-41:2010	Optical fibres - Part 1-41: Measurement methods and test procedures - Bandwidth
ITU G.651.1	Characteristics of a 50/125 µm multimode graded index optical fibre cable for the optical access network
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
IEC 60794-1-2/F5	Generic specification - Optical fibre cable test procedures - Bending test (Method F5)
IEC 60794-1-205	Optical fibre cables - Part 1-205: Generic specification - Basic optical cable test procedures - Water penetration test

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

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).
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 (EU) 2015/863 (RoHS III)	Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant.
UK SI 2012 No. 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment 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.
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 Regulations 2012 (UK RoHS) — compliant for Great

# Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black

Part Code: 205-342

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

Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.

## Part Code Table

Part Code	Description
205-340	Excel Enbeam OM1 SWA Armoured Fibre Optic Cable Loose Tube 4 Core Eca Black
205-342	Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core Eca Black
205-344	Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 12 Core Eca Black
205-346	Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 24 Core Eca Black
205-372	Excel Enbeam OM1 SWA Direct Burial Fibre Optic Cable Loose Tube 16 Core Eca Black