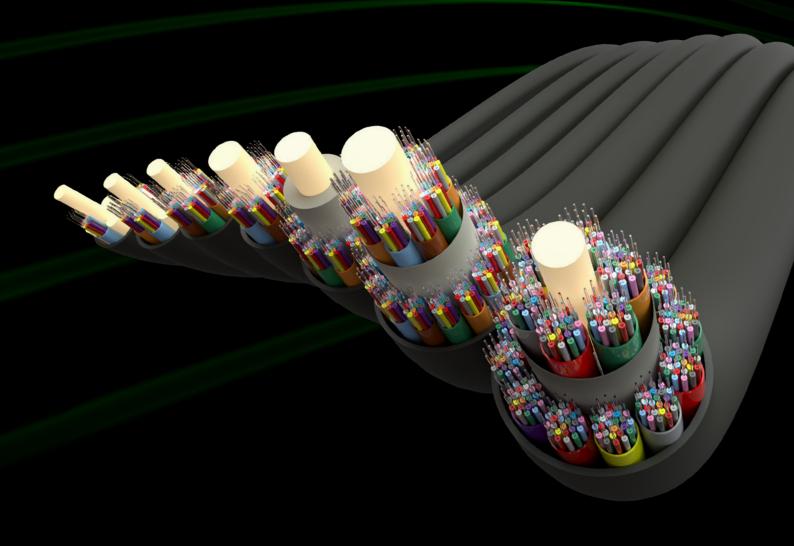




# **Enbeam** Micro Blown Cable







#### **PRODUCT OVERVIEW**

The Enbeam Micro Blown fibre has been designed for blowing into the Enbeam Micro-duct system. The OS2 Micro Blown SM G.657.A1 Fibre Loose Tube 9/125 HDPE Fca Black cable is available with 12 to 432 fibres and forms part of a huge range of OS2 fibre optic cables available from Mayflex.

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 5.3mm to 12.2mm allows high core count fibres to be blown into the access network down micro-duct with an inner diameter as small as 10 to 18 mm.

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

#### **FIBRE SPECIFICATION**

@1383nm≤0.38 dB/km@1550nm≤0.26 dB/km@1625nm≤0.26 dB/km@1625nm≤0.26 dB/km@1625nm≤0.26 dB/km@1550nm≤3.5 ps/km·nm@1550nm≤18 ps/km·nm@1550nm≤18 ps/km·nm@1550nm≤0.092 ps/(km·nm²)Cut-off wavelength, λC≤0.092 ps/(km·nm²)Cut-off wavelength, λcc≤0.20 ps/(km·nm²)Polarization mode dispersionIndividual fibre≤0.2 ps/√KmPolarization mode dispersion10 turns, 15mm radius≤0.25 dB@1550nm10 turns, 15mm radius≤0.25 dB@1550nm≤1.0 dB@1625nm≤1.0 dB@1625nm1 turn, 10mm radius≤0.75 dB@1550nmCladding diameter1< turn, 10mm radius≤0.75 dB@1550nmCladding non-circularity≤1.0%Primary coating diameter≤0.6µmCore concentricity error≤0.6µmCotating - cladding concentricity error≤12µmFibre curl radius≤4mMode field diameter@1310nm9.2±0.4µmPoint discontinuity≤0.05 dB	Attenuation	@1310nm	≤0.38 dB/km
©1625nm≤0.26 dB/kmChromatic dispersion coefficient1285nm - 1330nm≤3.5 ps/km ·nm2ero dispersion wavelength, A01300-1324 nmZero dispersion slope<0.092 ps/(km·nm²)Cut-off wavelength, Acc≤1260 nmPolarization mode dispersionIndividual fibre≤0.2 ps/vKmPolarization mode dispersionIndividual fibre≤0.2 ps/vKmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.0 dB@1625nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.5 dB @1625nmCladding diameter125.0±1.0µm≤1.0%Cladding concentricity error≤0.6µm≤0.6µmCore concentricity error≤0.6µm≤12µmFibre curl radius≤0.101≤12µmPrimary coating diameter@1310nm9.2±0.4µmPoint discontinuity≤0.05 dB≥100kpsi (0.69 GPa)		@1383nm	≤0.38 dB/km
Chromatic dispersion coefficient1285nm - 1330nm≤3.5 ps/km ·nmZero dispersion wavelength, λ01300-1324 nmZero dispersion slope≤0.092 ps/(km·nm²)Cut-off wavelength, λcc≤1260 nmPolarization mode dispersionIndividual fibre≤0.2 ps/√KmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.0 dB@1625nmCladding diameter1 turn, 10mm radius≤0.75 dB@1550nmCladding non-circularity≤1.0 dB≤1.0 dBPrimary coating diameter250±15µmCore concentricity error≤0.6µmCoating - cladding concentricity error≤120Fibre curl radius24mMode field diameter@1310nm9.2±0.4µmPoint discontinuity≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)		@1550nm	≤0.26 dB/km
Q01550nm≤18 ps/km nmZero dispersion wavelength, λ01300-1324 nmZero dispersion slope≤0.092 ps/(km nm²)Cut-off wavelength, λcc≤1260 nmPolarization mode dispersionIndividual fibre≤0.2 ps/√KmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nmMacro bending loss10 turns, 15mm radius≤0.75 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.5 dB@1625nm2 Cladding diameter1 turn, 10mm radius≤0.75 dB@1550nmCladding non-circularity≤1.5 dB@1625nm≤1.5 dB@1625nmPrimary coating diameter250±15µm≤0.6µmCoating - cladding concentricity error≤0.6µm≤1.2µmFibre curl radius≤0.12µm≤1.2µmPoint discontinuity≤0.05 dB≥100kpsi (0.69 GPa)		@1625nm	≤0.26 dB/km
Zero dispersion wavelength, λ01300-1324 nmZero dispersion slope<0.092 ps/(km·nm²)Cut-off wavelength, λcc<1260 nmPolarization mode dispersionIndividual fibre<0.2 ps//KmMacro bending loss10 turns, 15mm radius<0.1 ps//KmMacro bending loss10 turns, 15mm radius<0.25 dB@1550nm1 turn, 10mm radius<0.75 dB@1550nm<1.5 dB @1625nmCladding diameter1< turn, 10mm radius<1.5 dB @1625nmCladding non-circularity<1.0%<1.0%Primary coating diameter<0.6 µm<0.6 µmCoating - cladding concentricity error<1.2 µmFibre curl radius<0.1 µm<4mMode field diameter@1310nm9.2±0.4 µmPoint discontinuity<0.05 dB<100kpsi (0.69 GPa)	Chromatic dispersion coefficient	1285nm - 1330nm	≤3.5 ps/km·nm
Zero dispersion slope<0.092 ps/(km·nm²)		@1550nm	≤18 ps/km·nm
Cut-off wavelength, λcc≤1260 nmPolarization mode dispersionIndividual fibre≤0.2 ps/√KmDesign link value (M=20, Q=0.01%)≤0.1 ps/√KmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nm10 turns, 15mm radius≤0.75 dB@1625nm1 turn, 10mm radius≤0.75 dB@1550nmCladding diameter125.0±1.0µmCladding non-circularity≤1.0%Primary coating diameter≤1.0%Core concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≤4mMode field diameter@1310nm9.2±0.4µm≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)	Zero dispersion wavelength, $\lambda 0$		1300-1324 nm
Polarization mode dispersionIndividual fibre≤0.2 ps/√KmMacro bending loss10 turns, 15mm radius≤0.1 ps/√KmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nmCladding diameter11 turn, 10mm radiusCladding non-circularity≤1.0 dB@1625nmPrimary coating diameter≤1.0%Core concentricity error≤1.0%Coating - cladding concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≥4mMode field diameter@1310nm9.2±0.4µm≤0.05 dBProof stress Level≤100kpsi (0.69 GPa)	Zero dispersion slope		≤0.092 ps/(km·nm²)
Macro bending lossDesign link value (M=20, Q=0.01%)≤0.1 ps/√KmMacro bending loss10 turns, 15mm radius≤0.25 dB@1550nm1 turn, 10mm radius≤0.75 dB@1625nm1 turn, 10mm radius≤0.75 dB@1625nmCladding diameter125.0±1.0µmCladding non-circularity≤1.0%Primary coating diameter250±15µmCore concentricity error≤0.6µmCoating - cladding concentricity error≤1.2µmFibre curl radius≥4mMode field diameter@1310nm9.2±0.4µm≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)	Cut-off wavelength, λcc		≤1260 nm
Macro bending loss10 turns, 15mm radius≤0.25 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.5 dB @1625nm≤1.5 dB @1625nmCladding diameter125.0±1.0µmCladding non-circularity≤1.0%Primary coating diameter250±15µmCore concentricity error≤0.6µmCoating - cladding concentricity error≤1.2µmFibre curl radius≥4mMode field diameter@1310nmPoint discontinuity≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)	Polarization mode dispersion	Individual fibre	≤0.2 ps/√Km
≤1.0 dB@1625nm1 turn, 10mm radius≤0.75 dB@1550nm≤1.5 dB @1625nm≤1.5 dB @1625nmCladding diameterCladding non-circularity≤1.0%Primary coating diameterCore concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≤4mMode field diameter@1310nm9.2±0.4µmProof stress Level≥100kpsi (0.69 GPa)		Design link value (M=20, Q=0.01%)	≤0.1 ps/√Km
1 turn, 10mm radius   ≤0.75 dB@1550nm     ≤1.5 dB @1625nm     Cladding diameter   125.0±1.0µm     Cladding non-circularity   ≤1.0%     Primary coating diameter   250±15µm     Core concentricity error   ≤0.6µm     Coating - cladding concentricity error   ≤12µm     Fibre curl radius   ≥4m     Mode field diameter   @1310nm   9.2±0.4µm     Point discontinuity   ≤0.05 dB   ≥100kpsi (0.69 GPa)	Macro bending loss	10 turns, 15mm radius	≤0.25 dB@1550nm
≤1.5 dB @1625nm     Cladding diameter   125.0±1.0µm     Cladding non-circularity   ≤1.0%     Primary coating diameter   250±15µm     Core concentricity error   ≤0.6µm     Coating - cladding concentricity error   ≤12µm     Fibre curl radius   ≥4m     Mode field diameter   @1310nm   9.2±0.4µm     Point discontinuity   ≤0.05 dB   ≥100kpsi (0.69 GPa)			≤1.0 dB@1625nm
Cladding diameter125.0±1.0µmCladding non-circularity≤1.0%Primary coating diameter250±15µmCore concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≥4mMode field diameter@1310nmPoint discontinuity≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)		1 turn, 10mm radius	≤0.75 dB@1550nm
Cladding non-circularity≤1.0%Primary coating diameter250±15µmCore concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≥4mMode field diameter@1310nm9.2±0.4µm≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)			≤1.5 dB @1625nm
Primary coating diameter   250±15μm     Core concentricity error   ≤0.6μm     Coating - cladding concentricity error   ≤12μm     Fibre curl radius   ≥4m     Mode field diameter   @1310nm   9.2±0.4μm     Point discontinuity   ≤0.05 dB   ≥100kpsi (0.69 GPa)	Cladding diameter		125.0±1.0µm
Core concentricity error≤0.6µmCoating - cladding concentricity error≤12µmFibre curl radius≥4mMode field diameter@1310nmPoint discontinuity≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)	Cladding non-circularity		≤1.0%
Coating - cladding concentricity error   ≤12μm     Fibre curl radius   ≥4m     Mode field diameter   @1310nm   9.2±0.4μm     Point discontinuity   ≤0.05 dB     Proof stress Level   ≥100kpsi (0.69 GPa)	Primary coating diameter		250±15µm
Fibre curl radius   ≥4m     Mode field diameter   @1310nm   9.2±0.4μm     Point discontinuity   ≤0.05 dB     Proof stress Level   ≥100kpsi (0.69 GPa)	Core concentricity error		≤0.6µm
Mode field diameter@1310nm9.2±0.4μmPoint discontinuity≤0.05 dBProof stress Level≥100kpsi (0.69 GPa)	Coating - cladding concentricity error		≤12µm
Point discontinuity ≤0.05 dB   Proof stress Level ≥100kpsi (0.69 GPa)	Fibre curl radius		≥4m
Proof stress Level ≥100kpsi (0.69 GPa)	Mode field diameter	@1310nm	9.2±0.4µm
	Point discontinuity		≤0.05 dB
Coating strip force Peak 1.3-8.9 N	Proof stress Level		≥100kpsi (0.69 GPa)
	Coating strip force	Peak	1.3-8.9 N



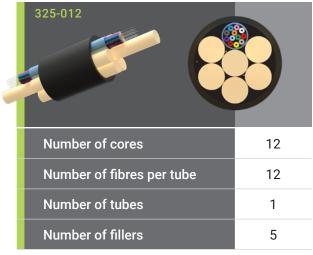
#### **CABLE SPECIFICATION**

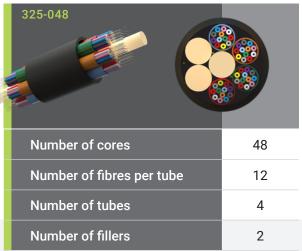
Weight (kg/km)	12, 48, 72 cores	23 (nominal)
	96 core	35 (nominal)
	144 core	52 (nominal)
	288 core	81 (nominal)
	432 core	116 (nominal)
Loose tube material		PBT
Type of filling compound		Jelly
Central strength member type		FRP
Tensile performance (N)	Long term	0.15 G
	Short term	0.5 G
Crush resistance long term		150 N/100 mm
Short term		450 N/100 mm
Minimum bending radius during installation		20D
After installation		10D
Temperature operating		-20°C to 70°C

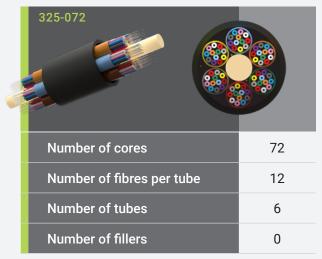
## **PRODUCT SPECIFICATION**

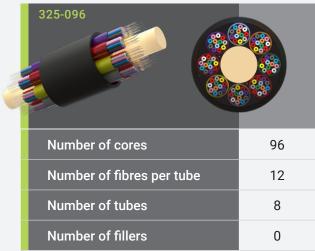
Number of cores	12 to 432	
Type of tube	Loose tube	
Number of fibres per tube	12 to 288	12F
	432	24F
Fibre type	Single mode 9/125	
Category	OS2	
Outer sheath material	HDPE	
Outer sheath colour	Black	
Reaction-to-fire class according to EN 13501-6	Fca	
Outer diameter approx.	5.3 mm to 12.2 mm	
Blown system	Yes	



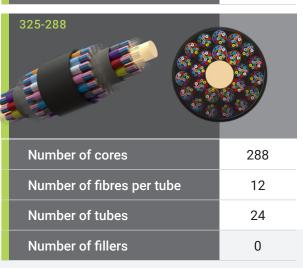


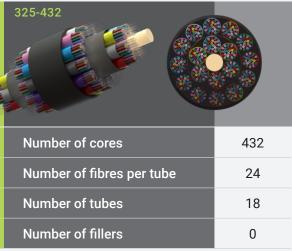






325-144	
Number of cores	144
Number of fibres per tube	12
Number of tubes	12
Number of fillers	0







### PART NUMBER INFORMATION

Part Number	Product Description
325-012	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 12 Core 9/125 HDPE Fca Black
325-048	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 48 Core 9/125 HDPE Fca Black
325-072	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 72 Core 9/125 HDPE Fca Black
325-096	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 96 Core 9/125 HDPE Fca Black
325-144	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 144 Core 9/125 HDPE Fca Black
325-288	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 288 Core 9/125 HDPE Fca Black
325-432	Excel Enbeam OS2 Micro Blown Singlemode G.657.A1 Fibre Cable Loose Tube 432 Core 9/125 HDPE Fca Black

Note: Images used in this data sheet are indicative of the cable style only.



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find out all about:

# Enbeam Micro Blown Cable





