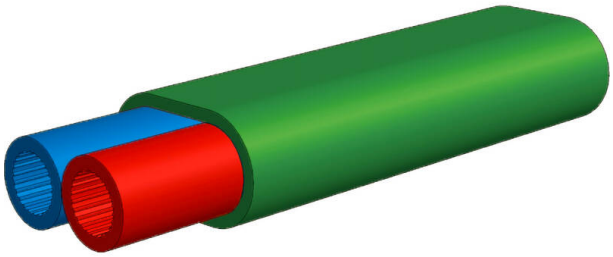
Excel Enbeam 2 Way External 16/12 mm Blowing Tube Green

Item Code: 208-778



- Direct-bury
- HDPE sheath
- Multiple sizes available
- Multiple bundle configurations
- Crush and impact resistant
- RoHS Compliant

Product Overview

Enbeam direct bury blowing tubes have been designed for direct burial to allow blown fibre to be distributed externally where there are no existing ducts available. All tube bundles are over-sheathed with High Density Polyethylene (HDPE) to withstand the friction when installing the micro ducts. All internal tubes are colour coded for easy identification and have a low friction inner coating to reduce drag & maximise blowing distances and have a thicker internal wall to withstand the environment when direct buried.

Tubes are easily broken out of the main sheath and can be branched-off using the Enbeam push-fit blown tube connectors. The tubes are supplied on disposable wooden drums and capped at both ends to prevent ingress of moisture or contamination.

Product Specifications

Feature	Values
Suitable for outdoor installation	yes
Halogen free	no
Outer sheath colour	Green

Additional specifications

Features		Values
Sheath material		HDPE
Pressure	burst	min. 40 bar
	blowing	20 bar (recommended)
Recommended cable diameter		3.6-8.4mm

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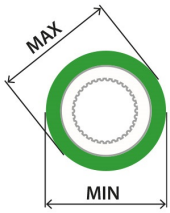
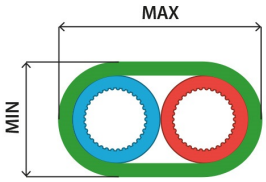
Additional specifications

Features	1x16/12	2x16/12	4x16/12
MAX (mm)		33.5	41.5
MIN (mm)		17.5	33.5
Outer diameter (OD)	16±0.1mm		
Inner diameter (ID)	min. 11.9mm		
Ovality	max 5%		
Sheath thickness (mm)	4	0.75	0.75
Installation tensile force, max	1150 N	2300 N	4600 N
Min. bending radius ⊥ MAX (mm)	160	175	415
Min. bending radius ⊥ MIN (mm)	N/A	335	335
Weight (kg/km)	84	235	430
Operating temperatures	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Transport/storage temperatures	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Installation temperatures	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C

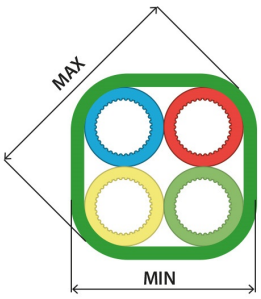
Product drawing



Single



2-Way



4-Way

Standards

Applicable standard	Detail
EN ISO 291:2008	Plastics – Standard atmospheres for conditioning and testing
EN ISO 2505:2005	Thermoplastics pipes – Longitudinal reversion – Test method
ČSN 010254:1976	Sampling inspection by attributes
EN ISO 1167-1:2006	Thermoplastics pipes, fittings and assemblies for the conveyance of fluids – Determination of the resistance to internal pressure
EN 12201-1:2011	Plastics piping systems for water supply, and for drainage and sewerage under pressure – PE
EN 12201-2:2011+A1:2013	Plastics piping systems for water supply, and for drainage and sewerage under pressure – Polyethylene (PE) – Part 2: Pipes
EN ISO 3127:2017	Plastics piping and ducting systems – Thermoplastics pipes – Test method for resistance to external blows by the round-the-clock method
IEC 60 794-1-1:2015	Optical fibre cables – Part 1-1: Generic specification – General
IEC 60 794-1-2:2017	Optical fibre cables – Part 1-2: Generic specification – Basic optical cable test procedures – General guidance
IEC 60794-1-21:2015+AMD1:2020	Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical tests methods
IEC 60 794-1-22:2017	Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental tests methods
IEC 60 794-1-23:2019	Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods
EN IEC 60 794-1-24:2014	Optical fibre cables – Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods
IEC 60 794-2:2017	Optical fibre cables – Part 2: Indoor cables – Sectional specification
ASTM D 1894-14	Standard Test Method for Static and Kinetic Coefficient of Friction of Plastic Film and Sheeting
ASTM D2122-16	Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
EN 13501-1:2018	Fire classification of construction products and building elements – Part 1: Classification using data from reaction

	to fire tests
ISO 6259-1,2,3:1997-2015	Thermoplastic pipes – Determination of tensile properties
ISO 3126:2005	Plastics piping systems – Plastics components – Determination of dimensions
ISO 527-1:2019	Plastics – determination of tensile properties – Part 1: General principles
ISO 1133-1:2011	Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics
EN 61386-24:2010	Conduit systems for cable management – Part 24: Particular requirements – Conduit systems buried underground.
ISO 1183-1:2019	Plastics – Methods for determining the density of non-cellular plastics – Part 1: Immersion method, liquid pycnometer method and titration method
ISO 1183-2:2019	Part 2: Density gradient column method
ISO 6964:2019	Polyolefin pipes and fittings – Determination of carbon black content by calcination and pyrolysis – Test method
ISO 18553:2002+Amd 1:2007	Method for the assessment of the degree of pigment or carbon black dispersion in polyolefin pipes, fittings and compounds
ISO 9969:2016	Thermoplastics pipes – Determination of ring stiffness
EN ISO 13263:2017	Thermoplastics piping systems for non-pressure underground drainage and sewerage – Thermoplastics fittings – Test method for impact strength
IEC 60304:1982	Color code
ASTM D 1693:2015	Standard Test Method for Environmental Stress Cracking of Ethylene Plastics
ISO 11357-6:2018	Plastics – Differential scanning calorimetry (DSC) – Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)
ČSN EN ISO 899-2:2003/A1:2015	Plastics – Determination of creep behavior – Part 2: Flexural creep by three-point loading – Amendment 1
IEC 60 794-3-20:2016	Optical fibre cables – Part 3-20: Outdoor cables – Family specification for self-supporting aerial telecommunication cables
IEC 60794-4:2018	Optical fibre cables – Part 4: Sectional specification – Aerial optical cables along electrical power lines
IEC 60 794-5:2014	Optical fibre cables – Sectional specification – Microduct cabling for installation by blowing
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
208-777	Excel Enbeam Single External 16/12 mm Blowing Tube Green
208-778	Excel Enbeam 2 Way External 16/12 mm Blowing Tube Green
208-779	Excel Enbeam 4 Way External 16/12 mm Blowing Tube Green