

✗ Duct-installable

✗ HDPE sheath

✗ Available up to 24x 5 mm bundles

✗ Crush and impact resistant

✗ RoHS compliant

✗ 25 Year system warranty

## Product Overview

Enbeam external blowing tubes have been designed to allow blown fibre to be distributed externally and within ducts. The external grade tubes are over-sheathed with High Density Polyethylene (HDPE). The tubes have a low friction inner coating to reduce drag & maximise blowing distances.

The compact tubes can accommodate Excel fibre units containing from 2 to 12 fibres and are colour-coded for identification.

The tubes are easy to terminate and branch-off using suitable Excel connection closures and push-fit 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
Outer sheath colour	Black

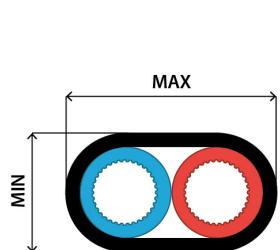
## Additional specifications

Features	Values
Transport and storage temperature range	-40°C to +70°C
Installation temperature range	-10°C to +50°C
Operating temperature range	-40°C to +70°C

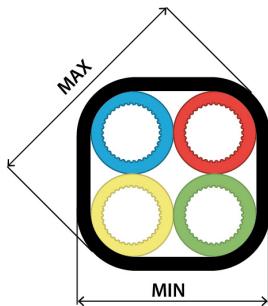
Outdoor exposure limit in Central Europe

max. 12 months

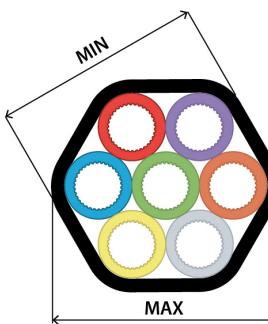
**Product drawing**



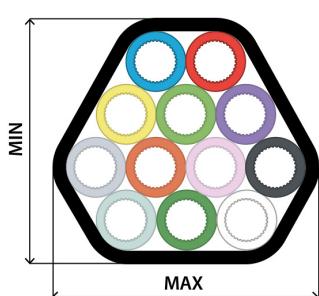
2-Way



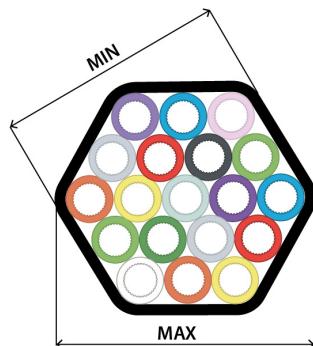
4-Way



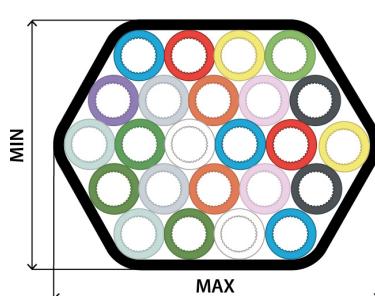
7-Way



12-Way



19-Way



24-Way

**Additional specifications**

Features	2x5/3.5	4x5/3.5	7x5/3.5	12x5/3.5	19x5/3.5	24x5/3.5
MAX (mm)	11.5	13.6	16.5	21.5	26.5	31.5
MIN (mm)	6.5	11.5	15.5	20	24	24
Sheath thickness (mm)	0.75	0.75	0.75	0.75	0.75	0.75
Installation tensile force, max	270 N	540 N	945 N	1620 N	2565 N	3240 N
Min. bending radius $\perp$ MAX (mm)	65	136	165	200	265	240

# Excel Enbeam 4 Way External 5/3.5 mm Blowing Tube Black

Item Code: 208-801



Min. bending radius $\perp$ MIN (mm)	115	115	N/A	N/A	N/A	315
Weight (kg/km)	36	60	96	160	230	280

## 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

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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
208-800	Excel Enbeam 2 Way External 5/3.5 mm Blowing Tube Black
208-801	Excel Enbeam 4 Way External 5/3.5 mm Blowing Tube Black
208-802	Excel Enbeam 7 Way External 5/3.5 mm Blowing Tube Black
208-803	Excel Enbeam 12 Way External 5/3.5 mm Blowing Tube Black
208-804	Excel Enbeam 24 Way External 5/3.5 mm Blowing Tube Black
208-828	Excel Enbeam 19 Way External 5/3.5 mm Blowing Tube Black

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.

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E&OE. Excel is a registered trade name of Mayflex Holdings Ltd.

