Item Code: 208-603





X Direct-bury
X HDPE sheath
X Multiple sizes available
X Crush and impact resistant
X 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 internal tubes are designed with a silicone low friction ribbing to reduce drag & maximise blowing distances and have a thicker internal wall to withstand the environment when direct buried.

### **Product Specifications**

| Feature                           | Values |
|-----------------------------------|--------|
| Suitable for outdoor installation | yes    |
| Halogen free                      | no     |
| Outer sheath colour               | Orange |

### **Additional specifications**

| Features            | Values      |
|---------------------|-------------|
| Outer diameter      | 14 mm       |
| Inner diameter      | 10 mm       |
| Wall thickness      | 1.9 mm      |
| Ovality             | Max 5%      |
| Sheath material     | HDPE        |
| Inner surface       | Ribbed wall |
| Tensile performance | 700 N       |
| Bend radius         | 200 mm      |

Item Code: 208-603



| Crush resistance                         | 500 N            |
|--|------------------|
| Blowing pressure                         | 16 bar           |
| Burst pressure                           | Min 40 bar       |
| Storage temperature                      | -40° C to +60° C |
| Installation temprature                  | -10° C to +50° C |
| Outdoor exposure limit in central Europe | Max 12 months    |
| Weight                                   | 72 kg/km         |

#### **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<br>and sewerage under pressure - Polyethylene (PE) - Part 2:<br>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 -<br>Basic optical cable test procedures - General guidance                      |
| IEC 60794-1-21:2015+AMD1:2020 | Optical fibre cables – Part 1-21: Generic specification –<br>Basic optical cable test procedures – Mechanical tests<br>methods          |
| IEC 60 794-1-22:2017          | Optical fibre cables - Part 1-22: Generic specification -<br>Basic optical cable test procedures - Environmental tests<br>methods       |
| IEC 60 794-1-23:2019          | Optical fibre cables - Part 1-23: Generic specification -<br>Basic optical cable test procedures - Cable element test                   |

Item Code: 208-603



|                           | methods   |
|---------------------------|---|
| EN IEC 60 794-1-24:2014   | Optical fibre cables - Part 1-24: Generic specification -<br>Basic optical cable test procedures - Electrical test<br>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<br>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 –<br>Determination of dimensions  |
| ISO 527-1:2019            | Plastics - determination of tensile properties - Part 1:<br>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:<br>Particular requirements - Conduit systems buried<br>underground.   |
| ISO 1183-1:2019           | Plastics – Methods for determining the density of non-<br>cellular plastics – Part 1: Immersion method, liquid<br>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:<br>Determination of oxidation induction time (isothermal<br>OIT) and oxidation induction temperature (dynamic OIT) |

Item Code: 208-603



| ČSN EN ISO 899-2:2003/A1:2015              | Plastics - Determination of creep behavior - Part 2:<br>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   |
|-------------|---|
| 208-603     | Excel Enbeam Single External 14/10 mm Blowing Tube Orange |

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

