Technical Specification

Microduct Assembly

Direct Install 5/3.5mm with Water Tape



Description

Direct Install assembly consisting of a specified number of 5/3.5mm MicroGlide® low friction tubes surrounded with a non-metallic moisture barrier and a polyethylene sheath.

This assembly is suitable for installation within an existing duct.

Primary Tube

- Made from polyethylene material with low friction inner lining to optimise blowing distances
- Smooth inner wall as standard ribbed inner wall optional
- Solid or translucent tubes allowing fibre visibility
- Colour and Number coded for ease of identification

| O.D/I.D Nominal (mm) | O.D (mm) | Wall Min-Max (mm) | Bend Radius (mm) | Max Tensile (N) | Max Pressure (bar) | Reference |
|----------------------|-------------|----------------------|---------------------|--------------------|-----------------------|---------------------|
| 5/3.5 | 5.0-5.1 | 0.65-0.8 | 100 | 105 | 16 | TS_MDT_5-3.5mm_HDPE |
| 10/8 | 10.0 - 10.1 | 0.9-1.05 | 200 | 300 | 12 | TS_MDT_10-8mm_HDPE |

Assembly

• Configuration: 1,2,4,7,12,19,24+1 way

• Outer sheath: polyethylene

• Outer sheath colour: black or other

• Water swellable tape (0.25mm) acts as moisture barrier

• Ripcord: for removal of outer sheath

| Configuration | O.D. Nominal (mm) | Weight (g/m) | Bend Radius (mm) | Max Tensile (N) |
|---------------|-------------------|--------------|---------------------|--------------------|
| 1 | 8.7 | 45 | 105 | 230 |
| 2 | 13.7 x 8.7 | 75 | 105 | 360 |
| 4 | 15.8 | 110 | 190 | 560 |
| 7 | 18.7 | 150 | 225 | 780 |
| 12 | 24.7 | 250 | 300 | 1310 |
| 19 | 29.5 | 350 | 355 | 1800 |
| 24 | 34.5 | 450 | 415 | 2350 |















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| Test | Test Standard |
|--------------------------------------|---|
| Tensile Performance | IEC 60794–1-2-E1 |
| Abrasion | IEC 60794–1–2-E2B |
| Crush | IEC 60794–1–2-E3 |
| Impact | IEC 60794–1–2-E4 |
| Torsion | IEC 60794–1–2-E7 |
| Repeated bending | IEC 60794–1–2-E6 |
| Kink | IEC 60794–1–2-E10 |
| Bend Performance | IEC 60794–1–2-E11 |
| Ripcord Removal | 500mm sample lengths shall be cut and conditioned at -10°C for 2 hours. After conditioning, the ripcord will split the inner sheath without snapping |
| Friction Properties & Lubrication | 1.5m of tube is secured with 450° wrap around a 300mm mandrel with one end of the tube hanging downwards. The other end pointing horizontally towards the tensile testing machine. A N°5 ripcord is installed through the tube and connected to a 200g weight. The twine shall be pulled at 1000mm/min and travel 100mm. The average force of 2 pulls shall be recorded to give a coefficient of friction less than 0.09. |

Marking

The following print is applied at 1-meter intervals:

- Supplier: RADIUS
- Product Description (e.g 7 way 5/3.5mm)
- Batch Number
- Meter Count
- Line Number

Customer specific print is optional

Packing

Microduct will be shipped on either disposable wooden drums, treated wooden drums or metal drums. Duct assembly end will be capped off.

Delivery Lengths

Available in various drum lengths typically 500m, 1000m and 2000m depending on product configuration. Drum lengths to be agreed at the time of order.