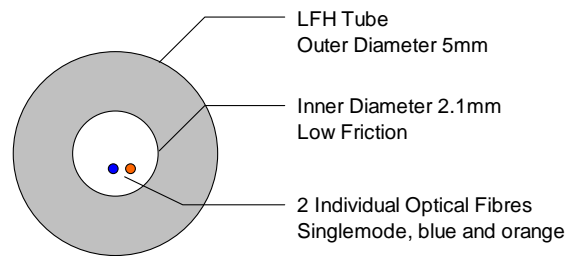


fibreflow™ Blown Fibre
1LFH PIF


*This provisional sheet defines a **proposed** product, that has not been manufactured. We expect to be able to offer this product and that it will exhibit the characteristics listed here. Detail checks may be incomplete at this time, and details may change.*

NOTES:

1. *Diameters and thicknesses are measured to the nearest 0.1mm*
2. *'Nominal' data is based on mid-spec, and is for information only, not for inspection purposes.*
3. *It is IMPORTANT to follow the installation guidance given in this proposal*

DESCRIPTION:

Low Fire Hazard tubing to specification MHT1712 used as an indoor fibre pathway. This tube has low flammability, low smoke and low fume performance as defined below. The tube may be used with care in this form, as a 1-way fibre route, although it does not have a cable sheath, and so must only be used in areas where physical abuse is unlikely. It is not suitable for installation by pulling; it must be laid directly. It is not suitable for outdoor use, or for burial. This tube is pre-installed with 2 singlemode optical fibres as per specification MHT1401 (fibre colours blue and orange).

TUBE MATERIAL, LFH

1. Extruded from 100% virgin material (no re-used compound content) with these characteristics:
2. Tensile strength 11MPa min, and 11MPa after 7 days at 100°C
3. Elongation at break 130% minimum, and 100% min after 7 days at 100°C
4. Cold impact at -20°C, no cracks
5. Cold elongation at -20°C; minimum 50%
6. No halogen content (chlorine, bromine, fluorine)
7. Temperature Index minimum 280°C

PRIMARY TUBE, LFH

1. Tube mass, 24g/m appr
2. Outer diameter 5.0 ± 0.1 mm (fits designated push connectors)
3. Inner diameter 2.1 ± 0.1 mm (measured by plug gauge)
4. Minimum wall thickness at any point: 1.2mm
5. All tube shall be a correct push-fit into standard 5mm connectors.
6. Rec installation pull force: Up to 30N (3kg) only. Pull by hand only. Take care with this low force.
7. Min bend radius 50mm. See separate recommendations for MBR of fibre products.
8. Cable Ties: Do not use ratchet-type ties. Consult Emtelle for recommended type

TESTS

1. Pass Flammability Test IEC 60332 Part 1
2. Pass Flammability Test IEC 60332 Part 3
3. Smoke Emission to BS 7622 not exceeding $A_0 = 0.25$

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4. Flexibility: Use test method IEC 60794-1-2 E11. (10 turns) around a mandrel of 50mm diameter for 30 minutes. There shall be no damage, and no reduction of outer diameter greater than 0.4mm
5. Pressure: Tube shall withstand at 21°C, under water, 17bar air pressure for 2 hours, without leaks.
6. Crush: Use test method IEC 60794-1-2 E3: A load of 600N (60kg) shall be applied for 60 seconds, then removed. There shall be no splitting nor permanent damage. Any permanent residual deformation shall not exceed 15%.

FIBRES

Fibre type and count 2 individual 250 micron fibres, singlemode G652d.
Colours: 1x Blue and 1x Orange
Fibre spec: MHT1401

DEPLOYMENT and INSTALLATION INSTRUCTIONS

Remember with PIF that the 1LFH product now DOES have fibre inside it, and precautions must be taken NOT to over-stretch the fibre unit when pulling the 1LFH. The following guidelines should be observed.

1. Pay-off must be tension-free, so assist drum movement and minimise tension on the microduct / fibre.
2. During installation, tension must be confined to the microduct, and there must be NO TENSION on the fibre. Do not fix the fibre to the microduct at the pulling end. It must be free to move inside the microduct.
3. Pull by hand only. Tension must not exceed 3kg. Check early pulls with a spring balance or similar. Do not use a pulling winch. Excess tension will cause the fibres to disappear inside the stretched microduct, although this should not adversely affect the fibres.
4. Cut microduct to length including excess length to permit fibre splicing (eg 3m). Fit end caps until splicing is imminent.
5. There maybe an excess length of fibre inside the microduct due to the manufacturing process. This product is designed for deployment in short lengths eg. 10s of metres. It is recommended that any excess fibre is gently pulled by hand from the microduct before splicing.

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