

***** EMTELLE

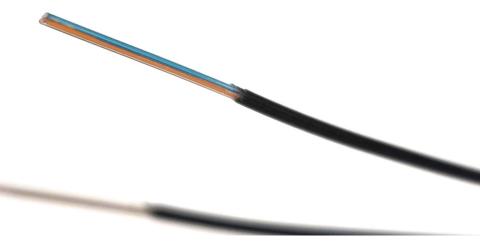


FUTURE PROOF FIBRE

















CONTINUED INNOVATION TO IMPROVE FIBRE CABLE SOLUTIONS

Emtelle understands the challenges faced when rolling out FTTH network infrastructure. In response, we focus on continued innovation of our optical fibre cable solution offerings to meet these demands.

FibreFast[™] is our latest patented fibre cable design, featuring enhanced benefits to the network provider to support their network rollout demands:



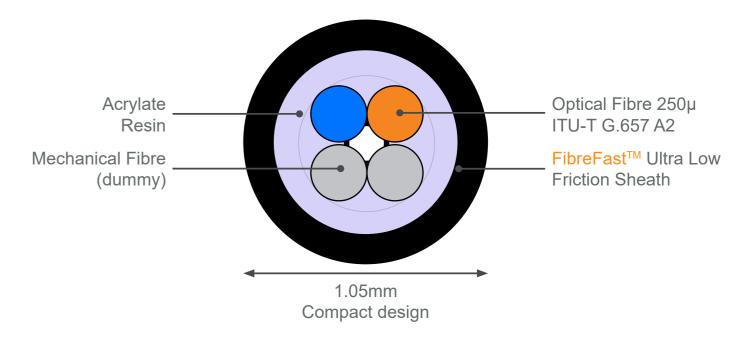
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Emtelle have developed the FibreFast™ microcable to improve the overall installation experience by reducing installation time (Ultra Low Friction Sheath) and equipment specification (Lower installation pressure required). Dependent on the infrastructure quality.

FibreFast™ microcable now features improved tensile performance making this product ideal for our pre-terminated blowable fibre cable solutions.

This innovative microcable is well suited to the FTTX market, where it excels as a blowable terminated solution. It has applications in 5G / FTTA (antenna) / IoT, distributions network infrastructure and FTTH (home) as a blowable customer connection cable.

Deployed in 2.1mm – 5.0mm internal diameter microduct infrastructure.









Ultra Low Friction Exceptional performance with FibreFlow™ microducts

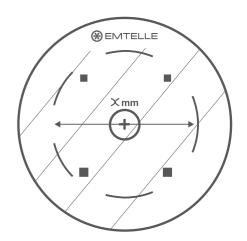
DESIGN & ENHANCEMENT

FibreFast[™] boasts an impressive 8% improvement in friction coefficient over our FibreFlow microcable. Rigorously tested on our Emtelle test track, the innovative FibreFastTM results in superior blowing performance. With over 25 years of experience in manufacturing fibre cable solutions, Emtelle is delighted to add FibreFast™ microcable to our microcable portfolio.



Ultra Low Friction Sheath – strenuous blowing route tests





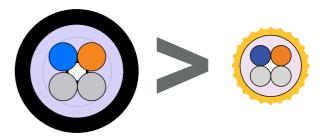
Less than 35min **1000m route 10x100 route** Ave speed > 30m/min **10bar Pressure**

Less than 20min 500m Drum Ave speed > 25m/min **10bar Pressure**



Ultra low Friction and exceptional performance with FibreFlow™ microducts.

8% Improvement in friction coefficient over our FibreFlow™ Microcable



United Kingdom Patent GB2409908C, European Patent EP3270203B1 and corresponding patents in other countries. United Kingdom Patent GB2409908C, European Patent EP3270203B1 and corresponding patents in other countries. Patents applied for GB2013892.1 and GB2111598.5. All rights reserved Patents applied for GB2013892.1 and GB2111598.5. All rights reserved



FibreFast



DESIGN SPECIFICATIONS



Tested in accordance with IEC 60794-5-20:2014 Specifications.

Mechanical Performance:

Test Name	Test Method	Test Parameters	Specifications
Tensile Performance	IEC 60794-1-21-E1	T = 35.3N Duration 1min	Fibre strain <0.6% at maximum applied force, 100% recovery after test.
Crush resistance	IEC 60794-1-21-E3	W = 100N for 1 minute	No visual damage, no attenuations change after test <0.05dB
Repeated Bending	IEC 60794-1-21-E6	60mm diameter	No visual damage, no attenuations change after test <0.05dB
Torsion	IEC 60794-1-21-E7	300mm length	No visual damage, no attenuations change after test <0.05dB
Kink test	IEC 60794-1-21-E10	60mm diameter	No visual damage, no attenuations change after test <0.05dB
Bend	IEC 60794-1-21-E11	60mm mandrel diameter, Four turns, Three cycles	No visual damage, no attenuations change after test <0.05dB

Environmental Performance:

Test Name	Test Method	Test Parameters	Specifications
Temperature Cycle	IEC 60794-1-2-F1 (3 cycles)	+23°C, -20°C, +60°C	Attenuation to be ≤0.05dB/km change during and after test

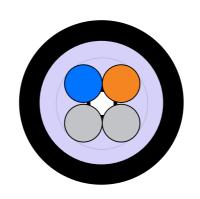
Optical Performance:

Optical Fibre	Value
Fibre Type	Single Mode Compliant with G.657A2 (ITU-T) (MHT2050)
PMDQ (M=20 Q=0.01%)	≤0.2 ps/ (km) 2
Macro bending Performance (Individual stripped out fibres)	50mm radius (100 turns) ≤0.1dB at 1550nm and 1625nm 32mm radius (1 turn) ≤0.5dB at 1550nm and 1625nm
Attenuation at 20°C (dB/km)	0.40 dB/km max at 1310nm to 1625nm 0.30 dB/km max at 1550nm 0.34 dB/km max at 1383nm water peak

Various fibre colour configuration available on request - Product specification MHT2811

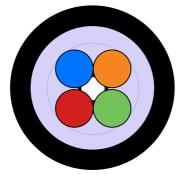
NEW DESIGNS COMING SOON

Emtelle offers a wide range of fibre counts to enable customers to plan their network capacity with minimum wastage. New additions coming soon:



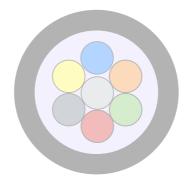
2F Fibre with 2 Mechanicals 1.047 g/m 1.05 mm ITU-T G657 A2





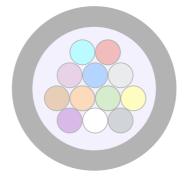
4F Fibre 1.047 g/m 1.05 mm ITU-T G657 A2

APPROVED



6F Fibre 1.47 g/m 1.23 mm ITU-T G657 A2

COMING SOON



12F Fibre 2.32 g/m 1.55 mm ITU-T G657 A2

COMING SOON

United Kingdom Patent GB2409908C, European Patent EP3270203B1 and corresponding patents in other countries.

Patents applied for GB2013892.1 and GB2111598.5. All rights reserved

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