

# FILAMIC TUBES

GENERAL DATA	Bond	Inside Diameter	Wall thickness	Maximum Cut Length	Temperature Classification	Electric Strength	Electric Strength	Surface Breakdown	Insulation Resistance	Density Mg/m <sup>3</sup>	Water Absorption
<b>FILAMIC TUBE FT 19</b> Langtec's Filamic Tube FT 19 is silicone resin bonded and suitable for long term use up to 650°C and slightly above for limited periods. FT 19 tubes are difficult to ignite and will not support combustion. They have a smooth finish and have little tendency to flake or delaminate	Silicone	2.25mm – 153mm  Note: Special tubes larger than 1 metre can be produced	Minimum 0.5mm Maximum 13.0mm	1270mm	650°C – 700°C	Parallel to Laminae (in oil at 90°C) 22KV Min 26KV Av	Normal to Laminae (in oil at 90°C) 10MV/m Min 12MV/m Av	In air – 25 mm long – 18KV	After 24 hours in water – 1 megohm min.	1.8	1.5 mg/cm <sup>2</sup> Average. 2.0mg/cm <sup>2</sup> Maximum
<b>FILAMIC TUBE FT 75</b> Langtec's Filamic Tube FT 75 is Epoxy bonded and suitable for continuous use at temperatures up to 155°C but may also be used in many applications up to 180°C. It is characterised by excellent mechanical strength and low water absorption.	Epoxy resin	2.25mm – 153mm	Minimum 0.5mm Maximum 13.0mm	1270mm	180°C	Parallel to Laminae (in oil at 90°C) 35KV Min 40KV Av	Normal to Laminae (in oil at 90°C) 14MV/m Min 16MV/m Av	In air – 25 mm long – 18KV	After 24 hours in water – 150 megohms min.	1.6	0.8 mg/cm <sup>2</sup> Average. 1.2mg/cm <sup>2</sup> Maximum
<b>FILAMIC TUBE FT 77</b> Langtec's Filamic Tube FT 77 is Epoxy bonded and generally similar to Filamic Tube FT 75 but has an outer wrap of woven glass cloth to give additional mechanical strength and resistance to abrasion.	Epoxy resin	3.18mm – 153mm	Minimum 1.0mm Maximum 13.0mm	1015mm	180°C	Parallel to Laminae (in oil at 90°C) 36KV Min 40KV Av	Normal to Laminae (in oil at 90°C) 14MV/m Min 16MV/m Av	In air – 25 mm long – 20KV	After 24 hours in water – 150 megohms min.	1.4	0.8 mg/cm <sup>2</sup> Average. 1.2mg/cm <sup>2</sup> Maximum
<b>FILAMIC TUBE FT 79</b> Langtec's Filamic Tube FT 79 is silicone bonded and similar to Filamic Tube FT 19 except that it has a layer of woven glass cloth interleaved with the mica paper throughout its wall thickness to give increased mechanical strength.	Silicone resin	3.18mm – 153mm	Minimum 1.0mm Maximum 13.0mm	1220mm	250°C – 300°C	Parallel to Laminae (in oil at 90°C) 18KV Min 20KV Av	Normal to Laminae (in oil at 90°C) 10MV/m Min 12MV/m Av	In air – 25 mm long – 18KV	After 24 hours in water – 2 megohms min.	1.8	1.0 mg/cm <sup>2</sup> Average. 1.5mg/cm <sup>2</sup> Maximum
<b>FILAMIC TUBE FT 83</b> Langtec's Filamic Tube FT 83 is silicone resin bonded and similar to Filamic Tube FT 19 except that it is wrapped with woven glass fabric cloth to give additional mechanical strength. The proportions of Filamic and glass cloth can be varied according to electrical and mechanical requirements.	Silicone resin	3.18mm – 153mm	Minimum 1.0mm Maximum 13.0mm	1015mm	250°C – 300°C	Parallel to Laminae (in oil at 90°C) 22KV Min 26KV Av	Parallel to Laminae (in oil at 90°C) 8MV/m Min 12MV/m Av	In air – 25 mm long – 18KV	After 24 hours in water – 1 megohm min.	1.8	1.5 mg/cm <sup>2</sup> Average. 2.0mg/cm <sup>2</sup> Maximum

Langtec Limited are quality approved to ISO 9002 and have carried out research and technical investigations for major companies, national institutions and defence organisations.

The data is from tests in our works and does not constitute a specification. No liability shall be implied or assumed from any data given. Our considerable design and R & D knowledge is available to the user to ensure that we supply to your specification. Quality Control at all stages ensures very high standards. Certificates of compliance can be supplied.

Filamic is a registered trade name of Langtec Limited.

Sizes stated are typical and supplied in standard lengths or to your specification. We would be pleased to discuss with you any other requirements, resin systems, or characteristics.



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