

ISO 9001 : 2000 Company



 **FluoroTube**
PTFE Tubing

 **POLY FLUORO LTD**

About Poly Fluoro



Since establishment in 1985 Poly Fluoro Ltd. has been at the forefront of thermoplastic innovation, pioneering the manufacture and application of PTFE/Teflon® in India.

We are an accredited ISO 9001-2000 system, based in a modern 20,000-sq.ft plant, offering complete design, prototype and production services. This incorporates the capacity to mould, extrude, cast and machine both virgin and formulated PTFE/Teflon® components from sizes ranging from 1mm to in excess of 500mm diameters.

Allying a traditional engineering background with in-house material production and innovative new techniques, we have developed a unique range of products which are tailored to suit numerous applications.

To many, Poly Fluoro Ltd. and its extensive range of formulated PTFE specialty components is synonymous with the finest, most dependable engineering plastic for OE fitment. Over 100 OEMs regularly source their PTFE requirements from us with an increasing number of these being import substitutes.

FluoroTube™ PTFE Tubing

FluoroTube marks the entry of Poly Fluoro Ltd. into the PTFE tubing segment. With this product, Poly Fluoro introduces a tubing brand, which assures the client the highest quality of PTFE tubing.

FluoroTube™ will be the first thin-walled PTFE tubing manufactured in India – giving the local market PTFE tubing at a price point that would greatly improve cost dynamics and allow the full demand for PTFE tubing to be met in India. FluoroTube™ will also match the quality and dimensional specifications required in export markets.

The state-of-the-art paste extrusion plant in Bangalore, India is capable of manufacturing a variety of different tubes in sizes ranging from 1mm to 25mm diameters and wall thicknesses of up to 3mm.



FluoroTube™ comes in many varieties

Type	Description	Purpose
Single-lumen	Plain PTFE tubing with single outer and inner walls	Many applications across industries
Multi-lumen	Single outer tube with multiple inner tube cavities	Each inner tube holds a different fluid/wire - useful in medical applications
Split	Ridge on tube wall allowing it to be split longitudinally	Surgeon can remove a PTFE introducer from a patient while the primary device remains in place
Heat shrinkable	Thin tubing which shrinks in diameter when hot air is applied to it	Used to sheath wires, glass tubes for insulation or protection
Filled	Chemical additive giving radiopaque properties	Used in medical inserts - to show up in X-rays

Unique in many ways compared to conventional polymer tubing

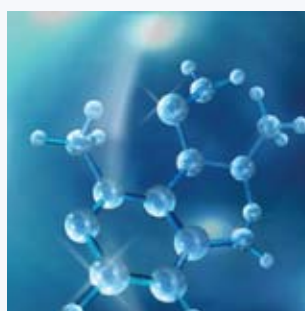
Property	Comments	Applications
Heat resistance	<ul style="list-style-type: none"> Working temperature range of -260 to +260°C Melting point of 327°C 	<ul style="list-style-type: none"> High temperature fluid transfer Insulation of metal parts
Dielectric strength	<ul style="list-style-type: none"> Working range of 50-120 Kilovolts per mm 	<ul style="list-style-type: none"> Insulation of electrical cables
Low friction	<ul style="list-style-type: none"> Coefficient of friction of 0.1 Almost identical static and dynamic coefficients 	<ul style="list-style-type: none"> Inserts into human body Sheaths on metal parts
Corrosion resistance	<ul style="list-style-type: none"> Water absorption at 0% Chemically inert - affected only by molten alkali metals, fluorine and chlorine tri-fluoride at elevated temperatures and pressures 	<ul style="list-style-type: none"> Chemical substances transfer Protection of metal parts

Numerous applications



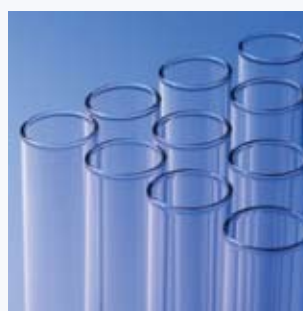
Automotive

- High-pressure air fuel and hydraulic transfer



Chemical

- Steam, acids, organic compounds transfer
- Laboratory valves



Medical

- Snares
- Multi-lumen catheters
- Introducers



Electrical

- Bulb/tube protectors
- Cable sheaths

If you have an application and are unsure of whether PTFE tubes will be effective – our technical staff will be more than happy to assist you in finding the right solution.

Other PTFE products from Poly Fluoro

Engineered PTFE components

Engineering components from Poly Fluoro are the combination of design expertise and unusual fabrication techniques. Poly Fluoro has a dedicated team of machining experts who review each product and recommend the design and material most suitable for the application..

Our design team, using cutting edge modelling software Solid Edge® and NX™ CAM Express can be as involved in the development of the component as you require, while our state-of-the-art CNC facilities and long experience in working with PTFE enable us to offer the highest quality service in the industry.

When it comes to fabrication skills Poly Fluoro Ltd. has experience in moulding, machining, thermoforming, grinding, welding and finishing PTFE products. Parts may be cut from stock shapes or they may be custom moulded and machined.



Lubring™

Lubring™ Slideways (a proprietary PTFE formulation) is a superior bearing material developed specially for machine tool ways, gibs and other sliding applications. It is widely used by leading machine tool manufacturers, re-builders and in-plant personnel to restore existing equipment to like-new precision.

Lubring™ exhibits superior performance when compared to other slideway bearings:

- Excellent vibration dampening – dampens cutting tool vibration from migrating throughout the machine tool
- Chemical resistance – resists aggressive coolants and lubricants
- High wear resistance – ensures long service life
- Low wear in the event of dry operation – protects mechanical components in cases of poor or failed lubrication
- Impervious to moisture



Bridge Bearings

Poly Fluoro combines its expertise in PTFE skived sheets with know-how on PTFE bonding techniques to produce high quality sliding bearings and PTFE-POT bearings. Our bearings usually employ PTFE with a 25% glass filling as this gives us superior creep properties. Fillers of bronze and carbon are also available.

We are equipped with facilities for testing the testing tensile properties, deformation and shore hardness of our sheets before we employ them in bridge bearings.

Our bridge bearings exhibit the following characteristics:

- Coefficient of friction as low as 0.03-0.05 – near rolling friction
- Load bearing capacity in the range of 40MPa
- PV values in excess of 10,000



Solid Edge is a registered trademark of UGS Corp, NX is a trademark of UGS Corp and Teflon is a registered trademark of E. I. du Pont de Nemours and Company



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