



Ultra-thin Wall Super Engineering Plastic Tube Series

We offer various extrusions with various materials.

Manufacturable size (In outer diameter from 0.3mm to 3.0mm)
Please contact us about manufacturable wall thickness.

PEEK (Polyetheretherketone)

It is a super engineering plastic with excellent chemical resistance and heat resistance. It can be used as metal substitution, because it has excellent hardness.

Features	Heat Resistance	Friction Resistance	Impact Resistance	Flame resistance
	Continuous use is possible at high temperatures up to 260 °C.	The friction coefficient of PEEK tube is very low.	PEEK tube retains its toughness and strength under harsh conditions.	PEEK tube has an inherent low flammability (UL: V-0).



TPI (Thermoplastic Polyimide)

It has excellent smoothness and eco-friendly. It also has excellent heat resistance because its glass transition temperature (250°C) is higher than other super engineering plastics.

Features	Heat Resistance	Smoothness	Eco Friendly	Stability
	It can be used up to 240°C.	Its kinetic friction coefficient is very low.	As compared to other super engineering plastics, it contains less impurities and emits less gas.	It has excellent plasma resistance, radiation resistance, and electrical properties.



PPS (Polyphenylenesulfide)

It has excellent mechanical properties. It meets the flammability requirements of UL94 V-0. It has excellent resistance to acid, alkali, and organic solvents at high temperature environment.

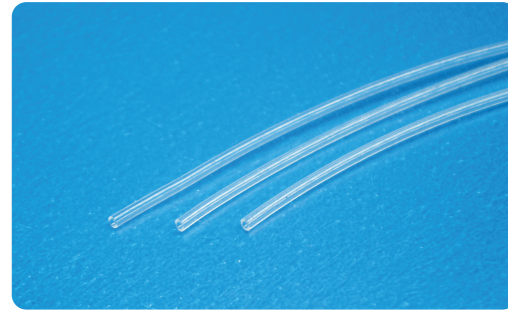
Features	Heat Resistance	Chemical Resistance	Chemical Resistance	Flame Resistance
	Continuous use is possible at high temperatures (170 - 200 °C).	It has excellent resistance to acid, alkali, and organic solvents at temperatures lower than 200 °C.	It has excellent resistance to acid, alkali, and alcohol, etc.	It meets the flammability requirements of UL94 V-0.



LM-ETFE (Ethylene Tetrafluoro Ethylene Copolymer)

Fluororesin tube which has excellent heat resistance and transparency. It shows excellent flexibility, heat resistance and transparency compared to the conventional ETFE tubes.

Features	Heat Resistance	Chemical Resistance	Flame Resistance	Transparency
	It can be used at temperatures ranging from -200°C to 180°C.	It shows exceptional resistance to strong acids, alkalis, etc.	It meets the flammability requirements of UL94 V-0.	It has excellent transparency compared to the conventional ETFE tube.



HOTTYPOLYMER Co.,Ltd.

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Ultra-thin Wall Super Engineering Plastic Tube Series

TPX* (Polymethylpentene)

It has excellent transparency, heat and chemical resistance. It also has excellent electric insulation, gas transmission rate and mold release characteristic.

Features	Heat Resistance	Chemical Resistance	Low Specific Gravity	Gas Transmission Rate
	It can be used at high-temperature because its melting point is high.	It has excellent resistance to acids, alkali and alcohol.	It can reduce the weight of products because its specific gravity is the lowest in thermoplastic elastomers.	It has high gas transmission rate because of its molecule structure.



PA11 (Plant-derived Nylon 11)

It is made from castor oil that is distilled from castor beans. It has better properties than Nylon6 and Nylon66 tubes.

Features	Temperature Property	Flexibility	Chemical Resistance	Impact Resistance
	It can be used at temperatures ranging from -40 °C to 130°C.	It has excellent flexibility.	It has excellent chemical resistance; therefore, it is used for making car hoses,machines, sewage pipes,etc.	It retains its properties at temperatures lower than -40°C.



PA12 (Nylon 12)

It has special properties such as low-temperature characteristics, water resistance, weather resistance and impact resistance. It also has excellent electric insulation and gas transmission rate.

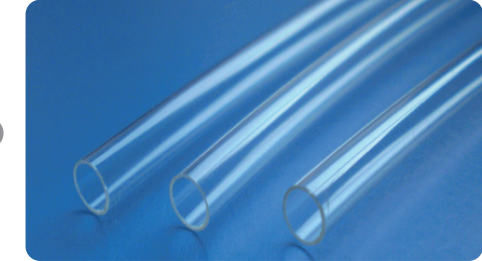
Features	Low-temperature Characteristics	Weatherability	Impact Resistance	Water Resistance
	It has excellent low-temperature characteristics compared with general nylons.	As compared to general nylon products, it has excellent weather-ability.	As compared to general nylon products, it has excellent impact resistance.	It has excellent water resistance because the water absorption rate of the nylon 12 is approximately 1/7 of the water absorption rate of nylon 6.



PC (Polycarbonate)

It has excellent properties such as transparency, heat and impact resistance. Its visible light transmittance is as good as acrylic resin and it is self-extinguishing.

Features	Temperature Property	Impact Resistance	Flame Resistance	Transparency
	It can be used at temperatures ranging from -40 °C to 120°C.	It can retain its impact resistance at temperatures lower than -40°C.	It is suitable for fire safety because it has self-extinguishing properties.	Its visible light transmittance is as good as acrylic resin.



PGA (Polyglycolic Acid)

It has excellent gas barrier properties, abrasion resistance, and solvent resistance. It is also eco-friendly because it is biodegradable. It is decomposed into water and carbon dioxide in compost after one month. It can retain its properties at normal environmental conditions for one year.

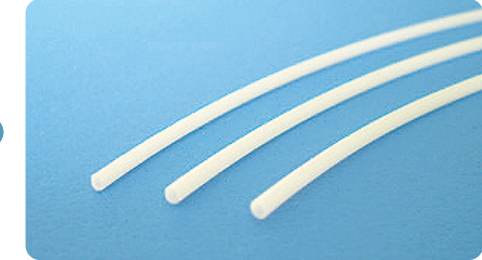
Features	Eco-friendly	Abrasion Resistance	Gasbarrier Properties	Mechanical Strength
	This tube is eco-friendly because it is biodegradable.	As compared to PEEK and PPS, it has excellent abrasion resistance.	This tube has superior gas barrier properties to oxygen and carbon dioxide because of its density.	As compared to engineering plastics, it has excellent mechanical strength. Its bending strength is as good as PEEK tubes.



PLA (Polylactic Acid)

It is a biodegradable thermoplastic aliphatic polyester by polymerizing lactic acid. It is an eco-friendly product and can reduce the use of oil resource.

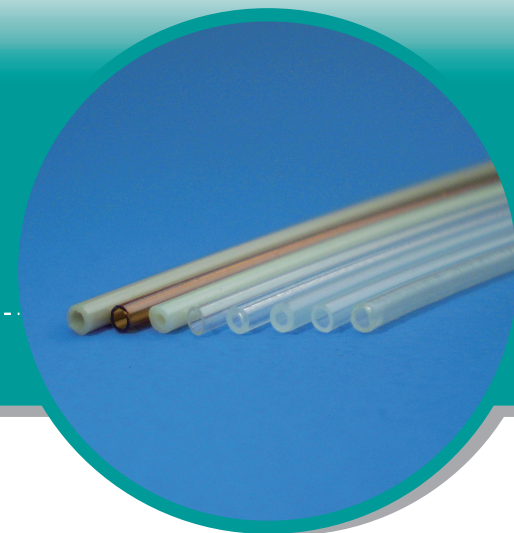
Features	Eco-friendly	Advancement	Biodegradability	Eco-friendly
	It is a eco-friendly product because it is a biomass plastic.	It is a eco-friendly product using polylactic acid. It can reduce the use of oil resource.	This tube is eco-friendly because it is biodegradable.	It is environmentally friendly because it does not emit CO2 and toxic gas.



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Impact Resistance

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Flame resistance

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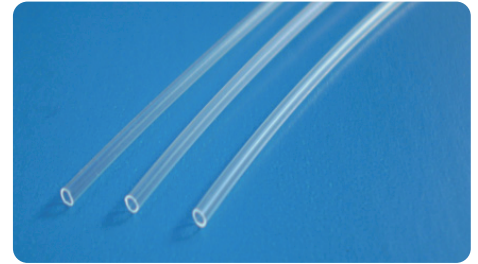
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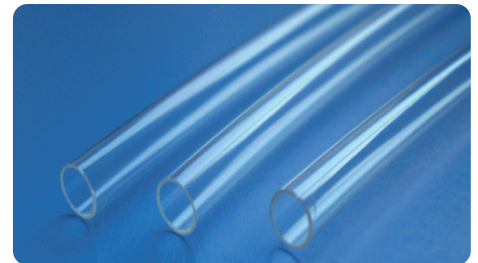
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