Junkosha®
Enabling Technology Innovators

Junkosha Liner Tubing

Wrapped PTFE Liner



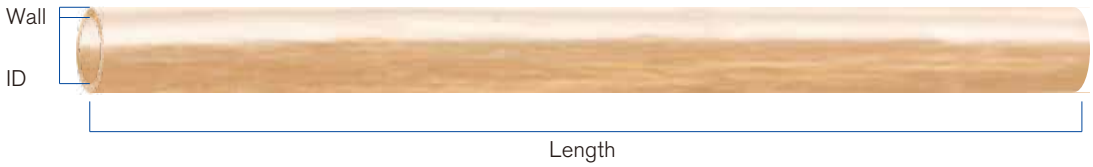
Junkosha Wrapped PTFE Liner is manufactured using advanced proprietary PTFE tape manufacturing and wrapping technologies that differ fundamentally from conventional film-cast, dispersion, and extrusion processes. Liner-level testing demonstrates that compared with our extruded PTFE liners, Junkosha Wrapped PTFE Liner delivers up to five times the tensile stress and twenty times the elastic modulus while maintaining a thinner wall profile. Wrapped PTFE Liner features a sodium-etched surface for excellent bondability and meets USP Class VI requirements.* Backed by patented high-strength technology, our Wrapped PTFE Liner combines exceptional strength, thin-wall performance, and design flexibility to support new possibilities in advanced catheter design and manufacturing.

- **Proprietary PTFE Technology:** Advanced PTFE tape manufacturing and wrapping technologies.
- **High Tensile Stress and Elastic Modulus:** Liner-level testing demonstrates up to 5× tensile stress and 20× elastic modulus compared with our extruded PTFE liners.
- **Thin-Wall Profile:** High strength with a thinner wall profile.
- **Excellent Bondability:** Sodium-etched surface provides excellent bondability.

*Test date: July-August 2026

Liner Size Capability

Imperial			Metric		
ID	Wall	Length	ID	Wall	Length
0.016-0.096"	0.00075"	39-78"	0.40-2.45 mm	19 µm	1,000-2,000 mm



Liner Applications

- Neuro catheter
- Micro catheter
- Balloon catheter
- EP/Ablation catheter

Patented Technologies

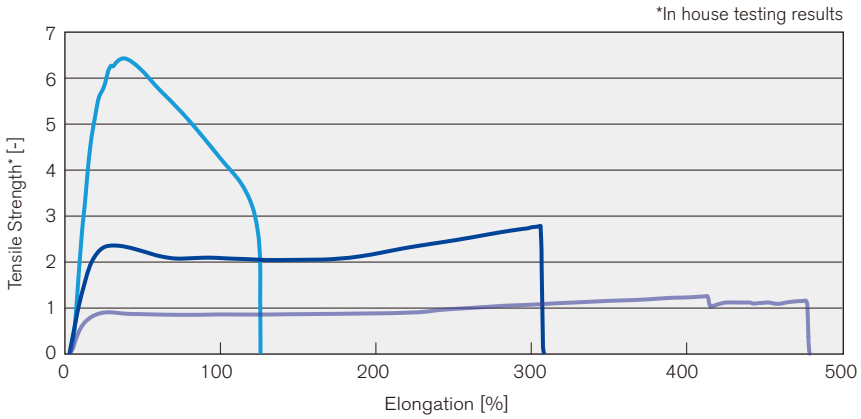
This product is protected by issued patents and pending patent applications.

Images have been digitally enhanced

Benefits

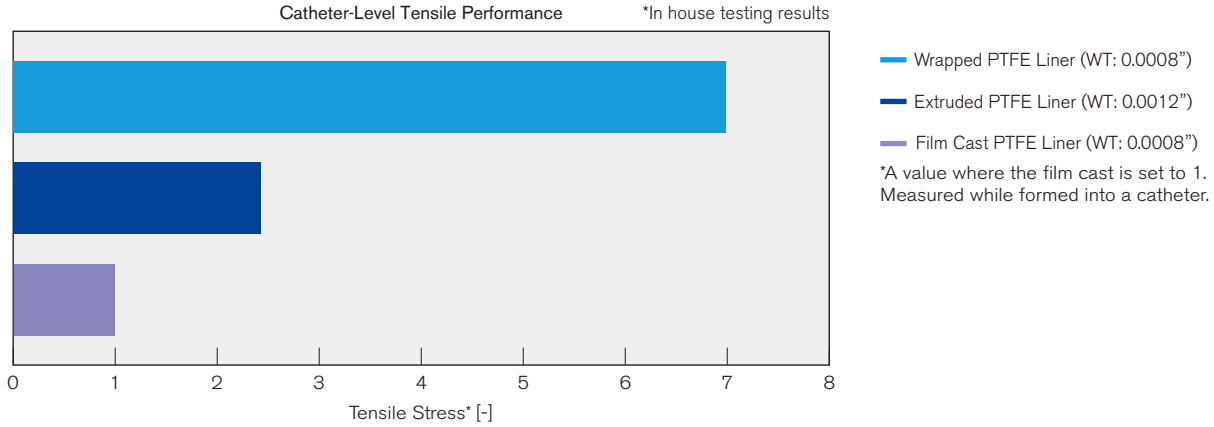
1 Greater Catheter Design Freedom

During device deployment, conventional liners may stretch, narrowing the inner diameter and increasing friction. The high tensile strength and elastic modulus of Junkosha Wrapped PTFE Liner, enabled by our unique tape manufacturing and wrapping technologies, help minimize elongation and maintain catheter structural integrity. This provides greater design freedom when selecting braid, coil, and outer jacket materials, supporting catheter designs for improved trackability and device delivery.



2 Smaller Profile. Larger Lumen.

Catheter designs require a balance between wall thickness, inner diameter, and outer diameter. Wrapped PTFE Liner combines a thin wall with tight wall thickness tolerance, allowing for a smaller outer diameter while maintaining the required inner diameter. Its precise inner diameter control also allows for a larger inner diameter within the same outer diameter, supporting improved access and delivery of larger devices.



3 Reduced Lamination Steps

Wrapped PTFE Liner is supplied on-mandrel, eliminating the lamination process typically required for conventional extruded PTFE liners. In suitable applications, this can reduce production time and manufacturing space while minimizing potential yield loss associated with the additional manufacturing step.

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Junkosha Liner Tubing

Etched PTFE Liner

The superior lubricious properties of PTFE make it an excellent material choice for lining catheter lumens. Conventional dip-coated or Filmcast PTFE Liners are mechanically weak, exhibit low tensile strength, and are prone to inconsistencies. Junkosha's extruded PTFE Liners are robust, high in tensile strength, have superior consistency in elongation, and are available with ultra thin walls to meet critical catheter dimension requirements. Junkosha's PTFE Liners have an optimized etching treatment to enhance adhesion during reflow even in the most demanding tapered catheter designs.

Features

- High tensile strength and consistent elongation (stretch control) resulting in higher yield rates during lamination
- Higher tensile strength/more consistent stretching prevents inserted/delivered devices from becoming stuck inside of catheter shafts
- Improved abrasion and scratch/tear resistance compared to dip-coated or Filmcast PTFE Liners
- Meets USP Plastic Class VI standards

Liner Applications

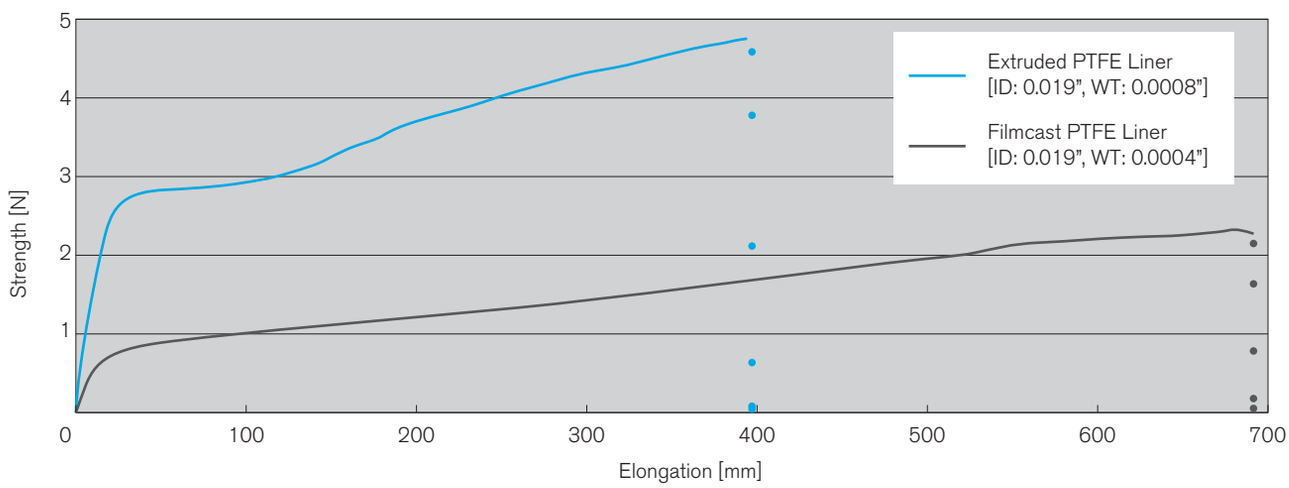
- Coil-reinforced catheter
- Delivery catheter (especially for self-expandable device delivery)
- Hypotube-reinforced catheter
- Tapered-ID catheter
- Multi-lumen catheter

Liner Size Capability

Imperial			Metric		
Inner Diameter	Wall Thickness	Length	Inner Diameter	Wall Thickness	Length
0.010-0.130"	0.00075-0.002"	39-78"	0.25-3.30 mm	19-50 µm	1,000-2,000 mm
0.131-0.200"	0.0015-0.002"	39-78"	3.33-5.08 mm	38-50 µm	1,000-2,000 mm

PTFE Liner Tubing Stress-Strain Curve Comparison Data

Junkosha's Extruded PTFE Liner has less elongation and higher tensile strength compared to Filmcast PTFE Liner.



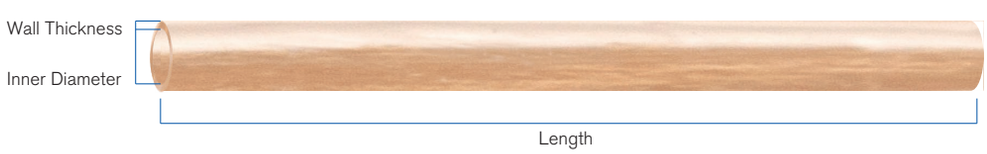
Request Etched PTFE Liner Samples

Request Stock Samples

- Shipped from inventory for quick delivery
- Limited quantity orders (5 pieces per order, limit 2 orders per request)
- Free of charge

Part Number	Imperial			Metric		
	Inner Diameter	Wall Thickness	Length	Inner Diameter	Wall Thickness	Length
SAMPLE0.010-0.001-65	0.010"	0.001"	65"	0.25 mm	25 µm	1650 mm
SAMPLE0.020-0.00075-65	0.020"	0.00075"	65"	0.51 mm	19 µm	1650 mm
SAMPLE0.020-0.001-65	0.020"	0.001"	65"	0.51 mm	25 µm	1650 mm
SAMPLE0.030-0.001-65	0.030"	0.001"	65"	0.76 mm	25 µm	1650 mm
SAMPLE0.040-0.001-65	0.040"	0.001"	65"	1.02 mm	25 µm	1650 mm
SAMPLE0.050-0.001-65	0.050"	0.001"	65"	1.27 mm	25 µm	1650 mm
SAMPLE0.060-0.001-65	0.060"	0.001"	65"	1.52 mm	25 µm	1650 mm
SAMPLE0.070-0.001-65	0.070"	0.001"	65"	1.78 mm	25 µm	1650 mm
SAMPLE0.080-0.0015-65	0.080"	0.0015"	65"	2.03 mm	38 µm	1650 mm
SAMPLE0.090-0.0015-65	0.090"	0.0015"	65"	2.29 mm	38 µm	1650 mm
SAMPLE0.100-0.0015-65	0.100"	0.0015"	65"	2.54 mm	38 µm	1650 mm
SAMPLE0.110-0.0015-65	0.110"	0.0015"	65"	2.79 mm	38 µm	1650 mm
SAMPLE0.120-0.0015-65	0.120"	0.0015"	65"	3.05 mm	38 µm	1650 mm
SAMPLE0.130-0.0015-65	0.130"	0.0015"	65"	3.30 mm	38 µm	1650 mm
SAMPLE0.140-0.0015-65	0.140"	0.0015"	65"	3.56 mm	38 µm	1650 mm
SAMPLE0.150-0.0015-65	0.150"	0.0015"	65"	3.81 mm	38 µm	1650 mm
SAMPLE0.160-0.0015-65	0.160"	0.0015"	65"	4.06 mm	38 µm	1650 mm
SAMPLE0.170-0.0015-65	0.170"	0.0015"	65"	4.32 mm	38 µm	1650 mm
SAMPLE0.180-0.0015-65	0.180"	0.0015"	65"	4.57 mm	38 µm	1650 mm
SAMPLE0.190-0.0015-65	0.190"	0.0015"	65"	4.83 mm	38 µm	1650 mm
SAMPLE0.200-0.0015-65	0.200"	0.0015"	65"	5.08 mm	38 µm	1650 mm

*Subject to availability. In case of stock shortage, alternative arrangements may apply.



Request Made-to-order Samples

- Custom variations within our liner size range can be requested
- Samples made upon order for quick device delivery (Shipped in approximately three weeks)
- Please specify any requirements for elongation and tensile strength
- Price: from US$1,000 for 50 pieces

Details of our patented technology are available on our website.

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