

# Optinova Mandrels

## Solutions for Medical Applications.



Optinova's PTFE or Acetal (POM) mandrels are ideal to be used as processing aids in the manufacturing of braid or coil reinforced shafts and other interventional delivery devices.

Optinova mandrels, monofilaments, and rods come with tight tolerances to enable a consistent diameter and roundness for catheter shaft manufacturing.



## Key advantages

- **Material Options:** Optinova offers both PTFE and Acetal (POM) mandrels for various manufacturing needs and application requirements.
- **Acetal Mandrel Versions:** Available in single and multilayer options, with multilayer improving dimensional stability and roundness.
- **Acetal (POM) Benefits:** Ideal for medium-sized shafts, cost-effective, holds tight tolerances, and has a smooth surface for easy removal.
- **PTFE Benefits:** Low friction and shrinks in diameter when stretched, simplifying post-manufacturing mandrel removal
- **Customize with Additives:** Apply additives for durability, lower friction, and other optimizations.

## Applications

- Manufacturing aid for braid or coil-reinforced catheter tubing
- Transport aid of ultra thin wall delicate extrusions such as catheter jackets or CRM lead components

**Tight tolerances** enable a consistent diameter and roundness for **catheter shaft manufacturing.**

### Technical specifications

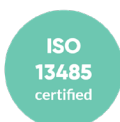
Feature		PTFE	POM
Dimensional range		0.50-6.00 mm (0.020-0.230")	
Tolerances		+/- 0.025 mm (0.001")	
Tensile strength at break	MPa	20 -34	40-70
Elongation at break	%	200-400	10-200
Flexural modulus	MPa	275-620	1400-3000
Hardness	Shore D	55-65	85
Density	g/cm <sup>2</sup>	2.17	1.3-1.4
Coefficient of friction		0.10	0.35
Transparency			
Melting Point	°C	330	160-175
Min/Max Service Temp.	°C	-240 +260	-40 +100
Water absorption	%	<0.01	0.2-1
ETO		X	X
Steam		X	X
Radiation		--	X

For more technical information, please contact us at our sales offices or visit our website: [optinova.com/contacts](https://www.optinova.com/contacts)

# We empower customers through highly reliable tubing solutions.



## Medical-grade certifications



We provide the full catheter tubing system:

- Mandrels
- Etched PTFE Liners
- Braided Tubing
- Pebax Jackets
- FEP Heat Shrink
- And more...

## We empower customers through highly reliable tubing solutions.

Founded in 1971, Optinova is a world-leading extrusion partner for advanced medical and industrial tubing. With sales offices around the world and four extrusion plants in Finland, Thailand, and the US, we are serving partners from 50+ countries across industries.

### Contact Us

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