

Optinova TPU IV Nova Catheter Tubing

Solutions for Medical Devices.



TPU IV Nova Catheter Tubing is engineered for superior production efficiency and unmatched patient comfort.

With 53% less gel in production*, improved length change predictability, and precise manufacturing control, TPU IV Nova delivers high performance with minimal waste.

TPU IV has three distinct flexibility levels, allowing you to tailor the tubing to meet specific requirements.



Key advantages

- **Less gel in production:** Higher quality tubing delivers less scrap
- **Improved length change predictability:** Delivers increased in-batch consistency
- **High control of ID and OD:** Optimized formula that lowers scrap
- **Customize:** Stiffness, kink resistance, and friction
- **Choose:** From three optimized versions of TPU (soft, medium, stiff) for seamless processibility and better patient experience
- **Scalability:** Enables rapid growth in production
- **Top Quality:** In-process visual and statistical process controls
- **PFAS-Free:** TPU products are free from PFAS

Type	Properties	Unique Properties
Soft	Softer material	In vivo performance, kink resistance, patient comfort, optimal utilization of TPU properties
Medium	Standard	Balance between processing and patient comfort
Stiff	Stiffer, reduced in vivo performance, less kink-resistance	Easy to process, ultimate ease of use

Medical-grade certifications



Applications

- IV catheterization for precise and reliable critical fluid delivery
- Optimized for seamless infusion therapy applications

Technical specifications

Shore Hardness	55D, 65 D, 75 D
X-ray Visibility	3, 4, 5 and 6 stripes
Gauge Size:	14-26G
Inner Diameter Range	0.43 - 1.77 mm
Outer Diameter Range	0.63 - 2.21 mm
Wall Thickness Range	0.09 - 0.22 mm
Tolerance	Length +/- 2%

Supplied On Spools

For more technical information, please contact us at our sales offices or visit our website: optinova.com/contacts

By popular demand, we've optimized TPU for **superior customization and improved product yield.**

* As compared to our TPU IV Standard

We empower customers through highly reliable tubing solutions.



Properties

	Soft Pellethane	Medium Pellethane	Stiff Pellethane
Size	14-26G	14-26G	14-26G
Sterilization	EtO, Peroxide	EtO, Peroxide	EtO, Peroxide
Density	1.16-1.19	1.16-1.19	1.16-1.19
Hardness (Shore D)	55D	65D	75D
Transparency	Good	Good	Good
Chemical resistance	Excellent	Excellent	Excellent
Ultimate tensile strength	20 Mpa	20 Mpa	20 Mpa
Elongation at break	650-750%	650-750%	650-750%
Flexural Modulus (Mpa)	90	130	1500

Note: This table is only meant to serve as a reference and the values are not necessarily typical for any specification. Users should evaluate the material to determine the suitability for their own particular application.

Optinova maintains an open dialogue with customers to be able to provide personalized solutions.

Optinova tubing is configured as cut-to-length pieces or spools.

Optinova also extrudes IV Catheter tubing in FEP and PTFE.

About Us

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

www.optinova.com

customerservice@optinova.com

