

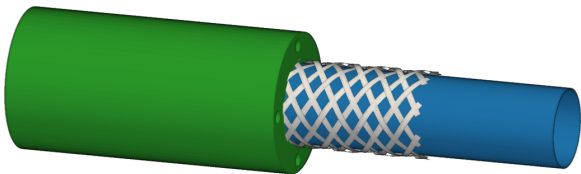
DefaultCatheter

Report Generated: 31 January, 2026

Catheter Summary

Design Mode	Fixed Inner Diameter
Overall Outer Diameter	0.109 in
Fixed Inner Diameter (Mandrel)	0.060 in
Number of Sections	3
Pullwire Arrangement	4 wires
Pullwire Offset	0.045 in
Pullwire Anchor Section	2

Section 1: Proximal



Analysis Results

Outer Diameter	0.109 in
Inner Diameter	0.060 in
Bending Stiffness (EI)	0.6151 lbf·in ²
Torsional Stiffness (GJ)	0.52692 lbf·in ²
Axial Stiffness (EA)	562.4 lbf
Linear Density	0.004 lb/ft
Kink Radius (Brazier)	0.424 in
Max Moment (Brazier)	0.968 lbf·in
Tensile Failure Load	95.761 lbf
Torque at Failure	0.807 lbf·in
Burst Pressure	2861.011 psi
Crush Pressure	64820.344 atm

Laminate Construction

L	Material	Reinf.	Thick (in)
1	PTFE	None	0.0010
2	PEBAX® 2533 SA 01 MED	Braid	0.0040
3	PEBAX® 7233 SA 01 MED	None	0.0200

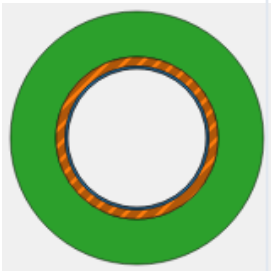


Fig. 1.1: Layer Cross-section

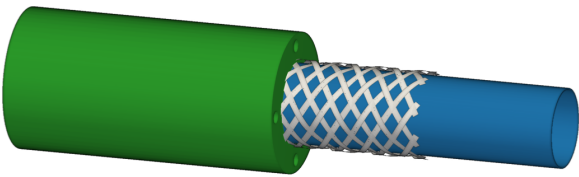
Layer 2: Braid Setup

Angle	57.3°
Coverage	58.6%
Wire Material	304V (1/2 Hard)
Wire Shape	Flat/Ribbon
Wire Dimensions	0.005 x 0.002 in (W x T)
Carriers	16
Picks Per Inch	60.0



L2 Reinforcement

Section 2: Flexible



Analysis Results

Outer Diameter	0.109 in
Inner Diameter	0.060 in
Bending Stiffness (EI)	0.0463 lbf·in ²
Torsional Stiffness (GJ)	0.03633 lbf·in ²
Axial Stiffness (EA)	25.9 lbf
Linear Density	0.004 lb/ft
Kink Radius (Brazier)	0.324 in
Max Moment (Brazier)	0.095 lbf·in
Tensile Failure Load	80.968 lbf
Torque at Failure	0.661 lbf·in
Burst Pressure	2016.498 psi
Crush Pressure	60175.362 atm

Laminate Construction

L	Material	Reinf.	Thick (in)
1	PTFE	None	0.0010
2	PEBAX® 2533 SA 01 MED	Braid	0.0040
3	PEBAX® 3533 SA 01 MED	None	0.0200

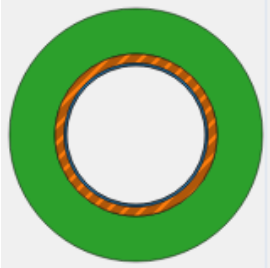


Fig. 2.1: Layer Cross-section

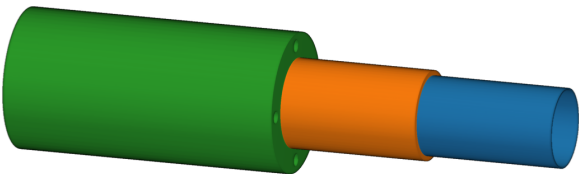
Layer 2: Braid Setup

Angle	57.3°
Coverage	58.6%
Wire Material	304V (1/2 Hard)
Wire Shape	Flat/Ribbon
Wire Dimensions	0.005 x 0.002 in (W x T)
Carriers	16
Picks Per Inch	60.0



L2 Reinforcement

Section 3: Tip



Analysis Results

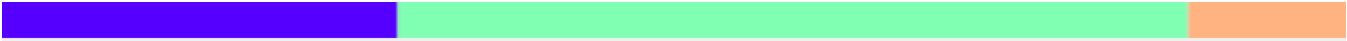
Outer Diameter	0.109 in
Inner Diameter	0.060 in
Bending Stiffness (EI)	0.0448 lbf·in ²
Torsional Stiffness (GJ)	0.01675 lbf·in ²
Axial Stiffness (EA)	24.9 lbf
Linear Density	0.003 lb/ft
Kink Radius (Brazier)	0.745 in
Max Moment (Brazier)	0.040 lbf·in
Tensile Failure Load	35.972 lbf
Torque at Failure	0.661 lbf·in
Burst Pressure	1951.570 psi
Crush Pressure	624.623 atm

Laminate Construction

L	Material	Reinf.	Thick (in)
1	PTFE	None	0.0010
2	PEBAX® 2533 SA 01 MED	None	0.0040
3	PEBAX® 3533 SA 01 MED	None	0.0200



Fig. 3.1: Layer Cross-section



Appendix: Material Properties

Material Name	Polymer Family	Density (g/cm³)	Modulus of Elasticity (MPa)	Poisson's Ratio	Tensile Strength (MPa)
PEBAX® 2533 SA 01 MED	PEBA	1.000	12.000	0.450	32.000
PEBAX® 3533 SA 01 MED	PEBA	1.000	21.000	0.450	39.000
PEBAX® 7233 SA 01 MED	PEBA	1.010	513.000	0.450	56.000
PTFE	PTFE	2.160	496.000	0.410	27.000
304V (1/2 Hard)	Metal	7.920	193000.000	0.290	1269.000