Extruded Products

StreamLiner™ Series

Sub-Lite-Wall™ StreamLiner™ VT, XT Sub-Lite-Wall™ StreamLiner™ OTW VT, XT, UT



Zeus PTFE Sub-Lite-Wall[™] StreamLiner[™] series takes our Sub-Lite-Wall[™] family to the next level with the thinnest PTFE liners in the industry. Available in both freeextruded and over-wire configurations, StreamLiner[™] series opens up new pathways for advanced catheter designs.

StreamLiner™ VT and XT-

StreamLiner VT and XT represent our thinnest and most flexible free-extruded PTFE liners. Pairing max wall thicknesses of 0.001" / 0.0254 mm (VT) and 0.00075" / 0.01905 mm (XT) with best-in-class tensile strength, free-extruded StreamLiner™ VT and XT catheter liners enable advanced catheter designs with smaller profiles or larger working channels.

StreamLiner™ OTW VT, XT and UT -

StreamLiner[™] Over-The-Wire (OTW) is the latest addition to the StreamLiner[™] family and helps bridge the gap between film cast and free-extruded liner technology. StreamLiner[™] OTW liners provide the same thin walls and tight tolerances as free-extruded StreamLiner[™], but with softer, more flexible mechanical performance enabling next-gen catheter designs to navigate the most tortuous vasculatures.





COEFFICIENT OF FRICTION

BIOCOMPATIBLE CONTINUOUS SERVICE TEMP



StreamLiner[™] is available in free-extruded and over-the-wire (OTW) configurations.

APPLICATIONS

- Catheter liners and access sheaths used in:
 - Endovascular
 - Neurovascular
 - ° Peripheral
 - Structural Heart
- ° CRM / EP

CAPABILITIES AND SIZING

- Free-Extruded
 - Inside diameters: 0.004" 0.120" (0.102 mm - 3.048 mm)
 - Wall thicknesses: 0.0005" 0.00075" (0.0127 mm - 0.01905 mm)
- Over-The-Wire
 - Inside diameters: 0.013" 0.0915" (0.330 mm - 2.324 mm)
 - Wall thicknesses: 0.0004" 0.00075" (0.0102 mm - 0.01905 mm)
- Cut lengths available in straight lengths (max cut length 86" / 2184.4 mm)

KEY PROPERTIES

- Highly lubricity
- Improved flexibility
- High tensile strength
- Biocompatibility
- Chemical resistance
- ETO and autoclave sterilizable
- Excellent dielectric insulating properties



PTFE StreamLiner™

All PTFE Streamliner[™] liners are produced based on customer specifications and the chart below is a general capability guide. All material can be etched on the OD to enhance adhesion. For even greater adhesion, a tie layer coating can also be applied.

PTFE StreamLiner™				
	StreamLiner™ VT	StreamLiner™ XT		
Process	Free-Extruded	Free-Extruded		
Material	PTFE	PTFE		
Inside Diameter (ID)	0.004" to 0.120"	0.004" to 0.040"		
	0.102 mm to 3.048 mm	0.102 mm to 1.016 mm		
ID Tolerance +/-	0.0005" to 0.001"	0.0005" to 0.001"		
	0.0127 mm to 0.0254 mm	0.0127 mm to 0.0254 mm		
Nominal Wall Thickness	0.00075″	0.0005″		
	0.01905 mm	0.0127 mm		
Wall Tolerance +/-	0.00025″	0.00025"		
	0.00635 mm	0.00635 mm		
Cut Length	86" Max	86" Max		
	2184.4 mm	2184.4 mm		
Surface Treatments	Etched, Tie Layer	Etched, Tie Layer		
Sterilization Methods	Autoclave, EtO	Autoclave, EtO		

PTFE StreamLiner™ Over-The-Wire

The chart below is a general capability guide. All material can be etched on the OD to enhance adhesion.

Material PTFE PTFE PTFE Inside Diameter (ID) 0.013" to 0.0915" 0.013" to 0.040" 0.013" to 0.020" 0.330 mm to 2.324 mm 0.330 mm to 1.016 mm 0.330 mm to 0.508 mm ID Tolerance +/- 0.0005" 0.0005" 0.0005" 0.0127 mm 0.0127 mm 0.0127 mm Nominal Wall Thickness 0.00075" 0.0005" 0.0004" Vall Tolerance +/- 0.00025" 0.00025" 0.0002" Vall Tolerance +/- 0.000635 mm 0.000635 mm 0.00051 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched Etched		PTFE StreamLiner	Over-The-Wire	
Material PTFE PTFE PTFE Inside Diameter (ID) 0.013" to 0.0915" 0.013" to 0.040" 0.013" to 0.020" 0.330 mm to 2.324 mm 0.330 mm to 1.016 mm 0.330 mm to 0.508 mm ID Tolerance +/- 0.0005" 0.0005" 0.0005" 0.0127 mm 0.0127 mm 0.0127 mm Nominal Wall Thickness 0.00075" 0.0005" 0.0004" Vall Tolerance +/- 0.00025" 0.00025" 0.0002 mm Vall Tolerance +/- 0.00025" 0.00025" 0.0002" Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm 2184.4 mm		Streamliner™ OTW VT	StreamLiner™ OTW XT	StreamLiner™ OTW UT
Inside Diameter (ID) 0.013" to 0.0915" 0.013" to 0.040" 0.013" to 0.020" 0.330 mm to 2.324 mm 0.330 mm to 1.016 mm 0.330 mm to 0.508 mm ID Tolerance +/- 0.0005" 0.0005" 0.0005" Nominal Wall Thickness 0.00075" 0.0005" 0.0004" 0.01905 mm 0.0127 mm 0.0127 mm 0.01027 mm Wall Tolerance +/- 0.00025" 0.0005" 0.0004" 0.01905 mm 0.0127 mm 0.0102 mm 0.0102 mm Wall Tolerance +/- 0.00025" 0.00025" 0.0002" 0.01905 mm 0.00025" 0.00025" 0.0002" Vall Tolerance +/- 0.00025" 0.00025" 0.0002" 0.000635 mm 0.000635 mm 0.00051 mm 0.0051 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm 2184.4 mm	Process	Extruded Over-The-Wire	Extruded Over-The-Wire	Extruded Over-The-Wire
0.330 mm to 2.324 mm 0.330 mm to 1.016 mm 0.330 mm to 0.508 mm ID Tolerance +/- 0.0005" 0.0005" 0.0005" 0.0127 mm 0.0127 mm 0.0127 mm 0.0127 mm Nominal Wall Thickness 0.00075" 0.0005" 0.0004" 0.01905 mm 0.0127 mm 0.0102 mm 0.0102 mm Wall Tolerance +/- 0.00025" 0.00025" 0.0002" 0.00635 mm 0.00635 mm 0.0051 mm 0.0051 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm 2184.4 mm	Material	PTFE	PTFE	PTFE
ID Tolerance +/- 0.0005" 0.0005" 0.0005" Nominal Wall Thickness 0.00075" 0.0005" 0.0127 mm Nominal Wall Thickness 0.00075" 0.0005" 0.0004" Wall Tolerance +/- 0.00025" 0.00025" 0.0102 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched Etched	Inside Diameter (ID)	0.013" to 0.0915"	0.013" to 0.040"	0.013" to 0.020"
Nominal Wall Thickness 0.00127 mm 0.00127 mm 0.00127 mm Nominal Wall Thickness 0.00075" 0.0005" 0.0004" 0.01905 mm 0.0127 mm 0.0102 mm Wall Tolerance +/- 0.00025" 0.00025" 0.0002" Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Get Ched Etched		0.330 mm to 2.324 mm	0.330 mm to 1.016 mm	0.330 mm to 0.508 mm
Nominal Wall Thickness 0.00075" 0.0005" 0.0004" 0.01905 mm 0.0127 mm 0.0102 mm Wall Tolerance +/- 0.00025" 0.0002" 0.000635 mm 0.00635 mm 0.00051 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched Etched	ID Tolerance +/-	0.0005″	0.0005″	0.0005"
Number of the second		0.0127 mm	0.0127 mm	0.0127 mm
Wall Tolerance +/- 0.00025" 0.00025" 0.0002" 0.00635 mm 0.00635 mm 0.0051 mm Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched Etched	Nominal Wall Thickness	0.00075″	0.0005″	0.0004"
Out Length Out Len		0.01905 mm	0.0127 mm	0.0102 mm
Cut Length 86" Max 86" Max 86" Max 2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched Etched	Wall Tolerance +/-	0.00025″	0.00025"	0.0002"
2184.4 mm 2184.4 mm 2184.4 mm Surface Treatments Etched Etched		0.00635 mm	0.00635 mm	0.0051 mm
Surface Treatments Etched Etched	Cut Length	86" Max	86" Max	86" Max
		2184.4 mm	2184.4 mm	2184.4 mm
Sterilization Methods Autoclave, EtO Autoclave, EtO Autoclave, EtO	Surface Treatments	Etched	Etched	Etched
	Sterilization Methods	Autoclave, EtO	Autoclave, EtO	Autoclave, EtO