

# StreamLiner™ Series

Ultra-Thin-Walled PTFE Catheter Liners

## Overview-

Zeus PTFE Sub-Lite-Wall™ StreamLiner™ series takes our Sub-Lite-Wall™ family to the next level with the thinnest PTFE catheter liners in the industry. Available in multiple configurations, our StreamLiner™ series sets the standard for advanced catheter designs.

## StreamLiner™-

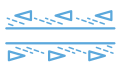
StreamLiner™ represents our thinnest and most flexible free-extruded PTFE liners. Pairing max wall thicknesses of 0.001" (0.025 mm) and below with best-in-class tensile strength, free-extruded StreamLiner™ catheter liners enable advanced catheter designs with smaller profiles or larger working channels.

## StreamLiner™ OTW-

StreamLiner™ Over-The-Wire (OTW) helps bridge the gap between film-cast and free-extruded liner technology. Blending strength and flexibility with nominal wall thicknesses as low as 0.0004" (0.0102 mm), StreamLiner™ OTW catheter liners open new pathways for delivering lifesaving therapies.

## StreamLiner™ NG-

StreamLiner™ NG is the latest addition to the StreamLiner™ family. Thanks to Zeus' proprietary film-cast process, which helps reduce surface imperfections and pinholes, StreamLiner™ NG catheter liners take flexibility, mechanical performance, and reliability to the next level while still featuring the exceptional sizing and tolerances of existing StreamLiner™ offerings.



COEFFICIENT OF FRICTION



TENSILE STRENGTH



FLEXURAL MODULUS



*StreamLiner™ Series catheter liners are available in multiple configuration options.*

## APPLICATIONS

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

## CAPABILITIES AND SIZING

- Inside diameters from 0.004" – 0.120" (0.102 mm – 3.048 mm)
- ID tolerances as low as  $\pm 0.0005"$  ( $\pm 0.0127$  mm)
- Nominal wall thicknesses from 0.0004" – 0.00075" (0.0102 mm – 0.01905 mm)
- Wall tolerances as low as  $\pm 0.0002"$  ( $\pm 0.0051$  mm)
- Available in straight cut lengths

## KEY PROPERTIES

- High lubricity
- Improved flexibility
- High tensile strength
- Class VI approved resins available
- Chemical resistance
- ETO and autoclave sterilizable
- Excellent dielectric insulating properties



# StreamLiner™ Series

All PTFE StreamLiner™ catheter 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 jacket-to-liner adhesion, a tie layer coating can also be applied.

PTFE StreamLiner™			
	StreamLiner™	StreamLiner™ OTW	StreamLiner™ NG
MATERIAL	PTFE	PTFE	PTFE
PROCESS	Free-Extruded	Extruded Over-The-Wire	Proprietary Film-Cast
MANDREL	None	Silver-plated copper, Stainless steel	Silver-plated copper, Stainless steel
INSIDE DIAMETER (ID)	0.004" – 0.120" (0.102 mm – 3.048 mm)	0.013" – 0.0915" (0.330 mm – 2.3241 mm)	0.017" – 0.0915" (0.432 mm – 2.3241 mm)
ID TOLERANCE	± 0.0005" – 0.001" (± 0.0127 mm – 0.025 mm)	± 0.0005" (± 0.0127 mm)	± 0.0005" (± 0.0127 mm)
NOMINAL WALL THICKNESS	0.0005" – 0.00075" (0.0127 mm – 0.01905 mm)	0.0004" – 0.00075" (0.0102 mm – 0.01905 mm)	0.0005" – 0.00075" (0.0127 mm – 0.01905 mm)
WALL TOLERANCE	± 0.00025" (± 0.00635 mm)	± 0.0002" – 0.00025" (± 0.0051 mm – 0.00635 mm)	± 0.00025" (± 0.00635 mm)
CUT LENGTH	86" Max.* (2184.4 mm Max.)	86" Max. (2184.4 mm Max.)	86" Max. (2184.4 mm Max.)
SURFACE TREATMENTS	Etched, Tie Layer	Etched	Etched, Tie Layer
STERILIZATION METHODS	Autoclave, EtO	Autoclave, EtO	Autoclave, EtO
STRENGTH	●●●●○	●●●●○	●●●○○
FLEXIBILITY	●●●●○	●●●●●	●●●●●

\* Liners with a Tie Layer have a maximum cut length of 78" (1981.2 mm).

StreamLiner™ and StreamLiner™ OTW may be shipped with product labels that feature VT, XT, or UT size designations. VT represents a standard nominal wall thickness of 0.00075" (0.01905 mm). XT represents a standard nominal wall thickness of 0.0005" (0.0127 mm). UT represents a standard nominal wall thickness of 0.0004" (0.0102 mm).

