

# Tie Layer

Enhanced Catheter Construction

## Overview-

Delamination is a challenging failure mode in catheter construction; it carries both risk and cost burden for device manufacturers. Detection typically does not occur until final inspection – after catheter assembly is complete – resulting in significant product loss. Delamination can also lead to failures in the field and product recalls.

Addressing this industry need, Zeus has developed a Tie Layer that improves jacket-to-liner bond strength and reduces the risk of delamination. Zeus' Tie Layer increases consistency in catheter performance and ultimately improves patient safety. Tie Layer reduces inspection requirements, increases product yield, and lowers manufacturing costs. Tie Layer is a true total solution in catheter design and manufacturing.

## Complete Your Design With StreamLiner™

*Zeus StreamLiner™ Series is our ultra-thin-walled line of PTFE catheter base liners. These free extruded liners provide ultra-low luminal friction with just the right combination of strength and flexibility. StreamLiner™ is the perfect match for Tie Layer allowing you to complete your catheter construction and design with Zeus.*



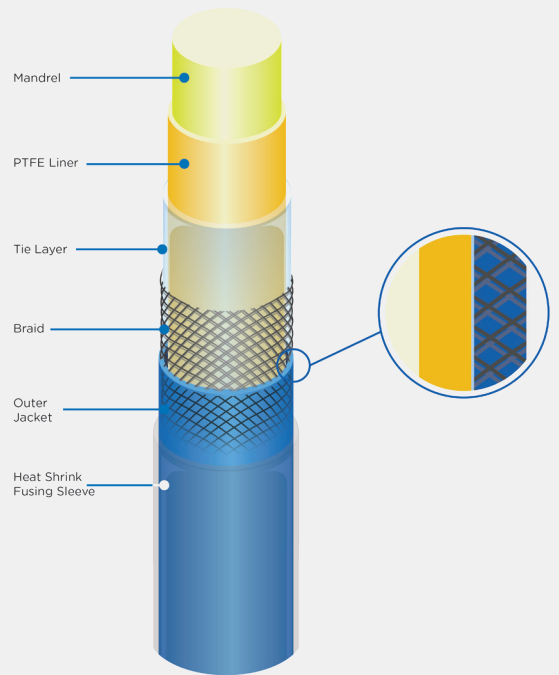
BIOCOMPATIBILITY



FLEXURAL MODULUS



HARDNESS/DUROMETER



*Tie Layer creates a melt-bondable surface that improves adhesion to both the liner and catheter jacket during the reflow process.*

## APPLICATIONS

- Catheter construction
- Laser cut metallic hypotubes
- Improves bondability of component layers in many applications

## CAPABILITIES AND SIZING

- Standard OD ranges 0.015" – 0.250" (0.381 – 6.350 mm)
- Thicknesses 0.0001" – 0.0003" (0.0025 – 0.0076 mm)
- Available in multiple grades and durometers of Pebax®, nylons, and polyurethanes

## KEY PROPERTIES

- Biocompatible USP Class VI approved material
- Reduces delamination
- Improves bond strength 20 - 40%
- Increases yields
- Lowers manufacturing cost/scrap
- Tailored catheter performance
- Maintains overall catheter profile

