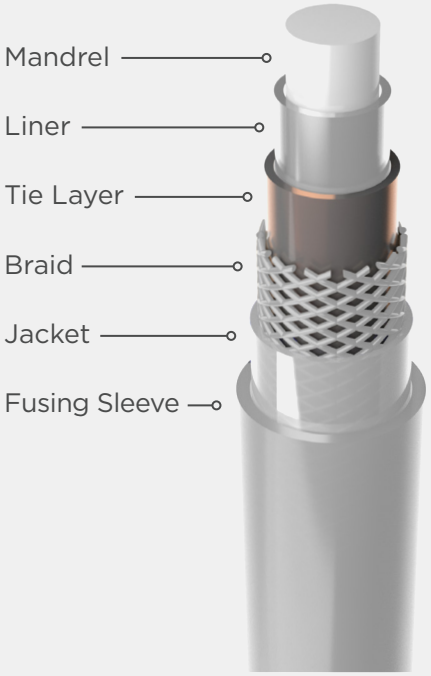
Coatings

Tie Layer

Enhanced Catheter Construction



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

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. By creating a stronger bond between the outer catheter jacket and inner liner, Tie Layer helps to improve patient safety, enhance catheter performance, and reduce manufacturing costs. Tie Layer is a true total solution in catheter design and manufacturing.

Multiple Options

Tie Layer can be applied to almost any round substrate. For catheter construction, products that can be manufactured with a tie layer include:

- *Tie layer-coated PTFE liners and multi-lumen tubing*
- *Tie layer-coated FEP liners*
- *Tie layer-coated polyimide tubing*

APPLICATIONS

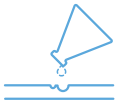
- Catheter construction
- Improves bondability of component layers in many applications

CAPABILITIES AND SIZING

- Standard ID ranges 0.015″ – 0.350″ (0.381 – 8.890 mm)
- Thicknesses 0.0001″ – 0.0003″ (0.0025 - 0.0076 mm)
- MAX cut length 78″ (1981.2 mm)
- Available Tie Layer Materials:
  - Pebax® – 35D to 72D durometers
  - Vestamid® 75D (Nylons)

KEY PROPERTIES

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


CHEMICAL RESISTANCE


FLEXURAL MODULUS


HARDNESS/DUROMETER

ZEUS®

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