

Unibody Laminate Shaft Architecture

Designing Catheter Performance at the System Level

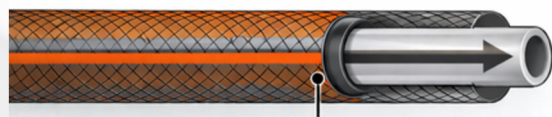
As catheter systems become more complex, the most significant performance limitations no longer come from individual materials — they come from how layers interact.

EverGlide technologies serve as **design-enabling building blocks** within this architecture, supporting stable, manufacturable unibody shaft designs.

Reducing interlayer slip through material and interface design



EverGlide+
(Bondable Liner | 20D–60D)



EverGlide MED Dyna2
(Embedded Lubricity Additive)

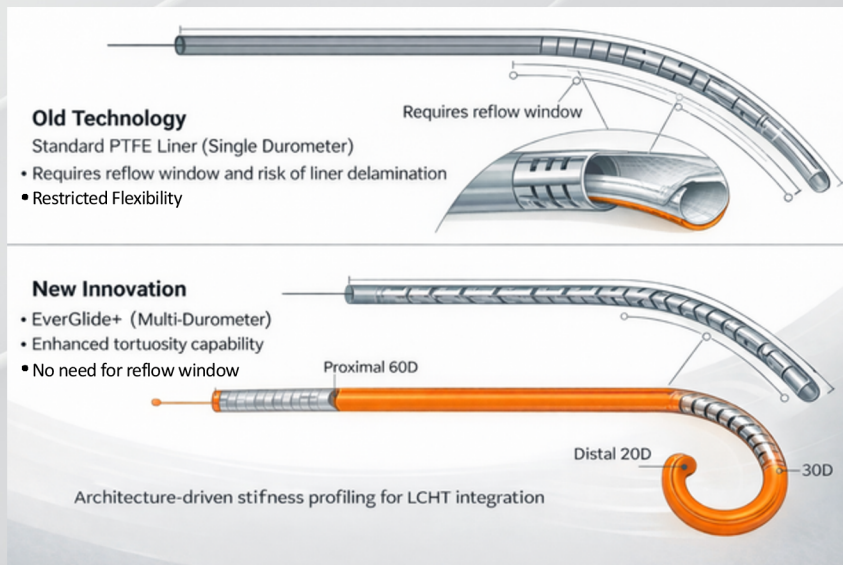
**Jacket system incorporating
EverGlide MED Dyna2**

**PFAS-FREE
E-beam
Stabilization**

A shaft architecture concept designed to minimize interlayer slip by treating liner, reinforcement, and jacket as a unified mechanical system.

Enabling Next-Generation Architectures: LCHT Integration

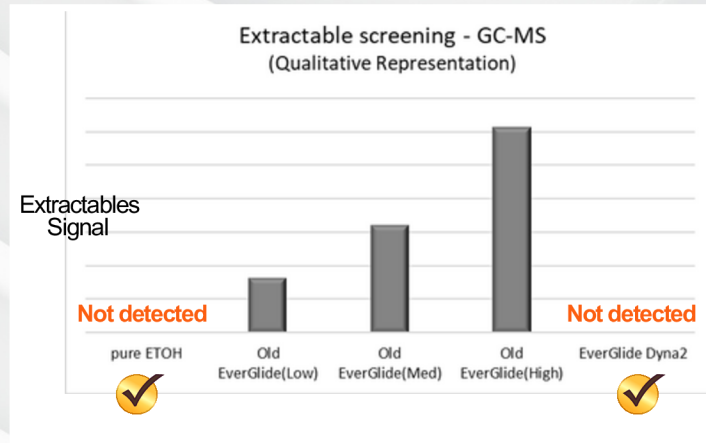
The same unibody laminate design approach naturally extends to laser-cut hypotube (LCHT) integration, where interlayer slip and bonding instability have traditionally limited performance. By minimizing slip interfaces and maintaining stable layer behavior, this architecture supports predictable interaction between polymer layers and laser-cut metal structures.



Validated Behavior

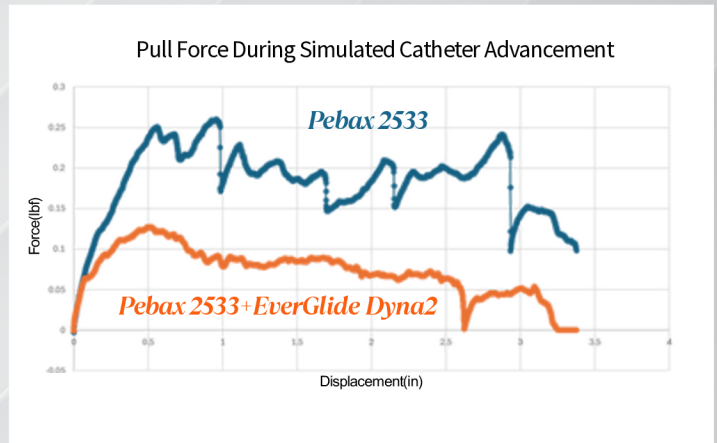
Migration / Extractables - GC-MS

No detectable extractable peaks were observed for EverGlide Dyna2 under validated GC-MS extraction conditions, supporting long-term durability amid tightening PFAS expectations.



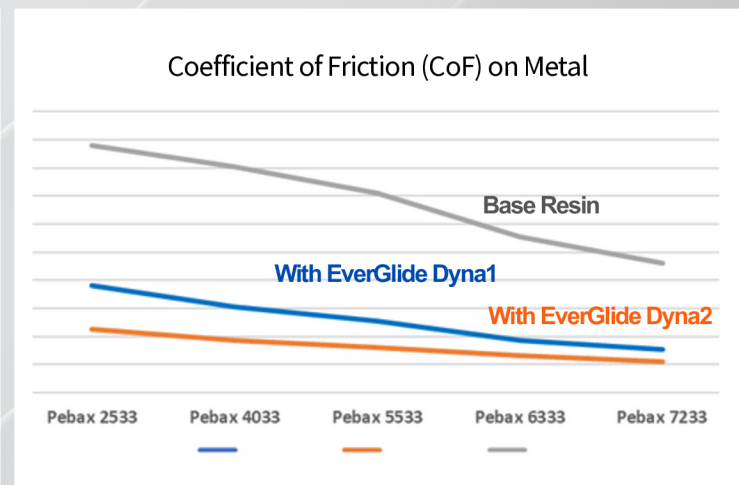
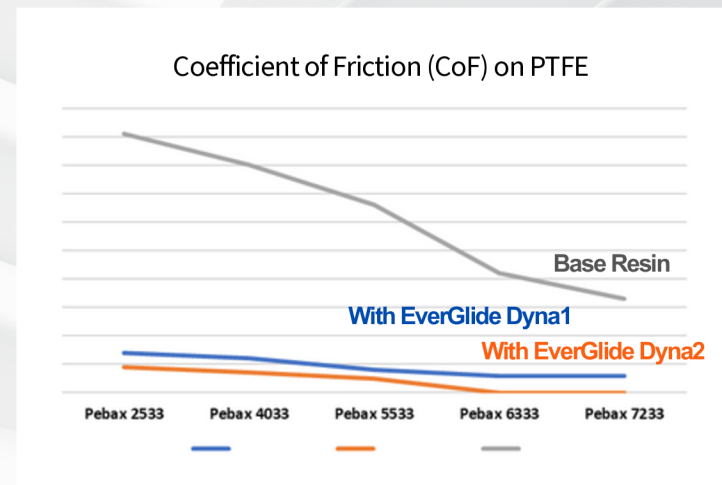
Pulling Test:

Reduced pull force observed under simulated catheter advancement conditions (37 °C, wet environment), supporting stable layer interaction within the laminate architecture.



Relative Friction Trend on PTFE Interface

Qualitative trend showing reduced friction across multiple Pebax grades with EverGlide integration, reflecting architectural integration rather than surface coatings.



Dynaflex approaches shaft development at the architecture level. Ask us how this architecture can redefine performance in your shaft design.

www.dynaflextech.com
cs@dynaflextech.com

