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PTFE Glass Filled Mandrels are the latest and greatest way to create smooth and consistent catheters and are an alternative to traditional **PTFE-Coated Stainless-steel Mandrels**.

Challenges with Stainless Steel PTFE Coated Mandrels

- PTFE-coated stainless-steel mandrels can impart and peel, causing contamination into the final product,
- PTFE Coated Mandrels vary greatly and have inconsistent performance, degrade rapidly with Performance of Mandrels degrade over time and usage,
 - Increases in cycle times.
 - Increases yield losses.
- Difficult to remove in most challenging & most expensive devices like,
 - Multi Lumen
 - Steerable
 - Micro Lumens
 - Fine Tapers
- Supply-chain and current raw material capacity can hold lengthy lead times,
 - Coatings cost can be very expensive due to the fact of using stainless-steel and PTFE coating and manufacturing process.
 - o 8 weeks min to 50-week min for stainless-steel coated mandrels.

Benefits using PTFE Glass Filled Mandrels

- PTFE glass-filled mandrels are **incredibly consistent**, **eliminate contamination risk**, and are significantly cheaper.
- Modern grinding technology also allows for a high-performance ground surface finish when compared to their PTFE-coated counterparts. When it comes to catheter forming and assembly, PTFE glass-filled mandrels are not just preferred but essential!
- Well, how about ultra-precision tolerances as tight as +/- .0001"? This means they are incredibly precise and can be used in most applications where a stainless-steel mandrel with PTFE coating is usually used.
- They are also **highly lubricious**, even before applying a high-performance ground finish. The obvious benefit here is how **easily they can be removed** even if they have been elongated.
- PTFE glass-filled mandrels can also withstand working temperatures of up to 260 Celsius or 500 Fahrenheit, making them ideal for use in high-temperature applications.
- In difficult-to-extract materials, such as **nylon**, PTFE glass-filled can be elongated for a simple release in seconds without damaging the device. This is especially useful in medical procedures where fast and efficient extraction is essential.
- In multi-lumen work, they eliminate significant thermal mass for much quicker production rates from reduced cooling and removal times. The multi-lumen approach also provides a comprehensive range of solutions for any application, from simple 3D printing systems and complex components with intricate details.

If you're looking for a precision component that offers all of the benefits of a standard PTFE-coated stainless steel mandrel with none of the drawbacks, then PTFE glass-filled mandrels are a perfect choice.