

Date: TBD

Subject: FilmCast Select™

1.0 Purpose:

This memo will introduce Confluent Medical’s new FilmCast Select™ program: Select the material properties that power your device!

2.0 Design Pressures and Restrictions

As the demand for minimally invasive procedures continues to grow, medical devices must become smaller, more sophisticated, and increasingly performance driven. As a result, a “one size fits all” approach to polymer tubing is no longer sufficient. Confluent Medical Technologies addresses this challenge through FilmCast Select™, a materials customization program that enables OEM customers to intentionally select key performance attributes of filmcast PTFE and polyimide tubing.

Through FilmCast Select™, customers can choose materials based on characteristics such as flexibility, strength, durability, surface finish, regulatory compliance, and optical clarity to align with specific device requirements. Supported by Confluent’s deep materials science expertise and advanced manufacturing capabilities, FilmCast Select™ delivers polymer tubing engineered to meet the unique demands of next generation delivery devices.

3.0 Polyimide

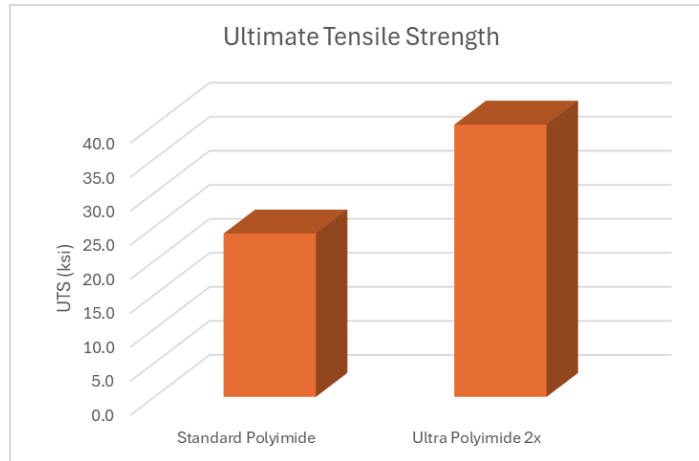
Confluent Medical is proud to offer a variety of polyimide options for medical applications:

Polyimide Type	Advantage
Standard Polyimide	Highly Transparent Historical Industry Standard
REACH Polyimide – Glossy	Highly Transparent REACH Compliant
REACH Polyimide – Matte	Lower Friction Stronger Bonds REACH Compliant
Ultra Polyimide	~2x Tensile Strength REACH Compliant

Standard polyimide is the original polyimide formulation utilized in many different medical devices; this thermoset polymer has exceptional column and tensile strength, dielectric properties, thermal resistance, and chemical resistance.

Confluent’s REACH Polyimide takes polyimide further by utilizing a REACH compliant solvent instead of the traditional, REACH-restricted solvent used in standard polyimide. The resulting tube is equivalent to standard polyimide and is REACH compliant in every lot without the need for additional processing. Therefore, there are no restricted solvents to remove, or extensive and expensive lot release testing required.

Additionally, Confluent offers REACH polyimide in either a glossy or matte finish. The glossy finish is as transparent and glossy as standard polyimide for visual consistency across device generations, while the matte finish is translucent with noticeable friction and bonding advantages on the outer diameter. Ultra Polyimide is a higher-modulus polyimide that is almost twice as strong as standard polyimide in tensile strength while utilizing a REACH-compliant solvent. This material is particularly useful in applications that require high tensile or column strength on devices with very thin walls.



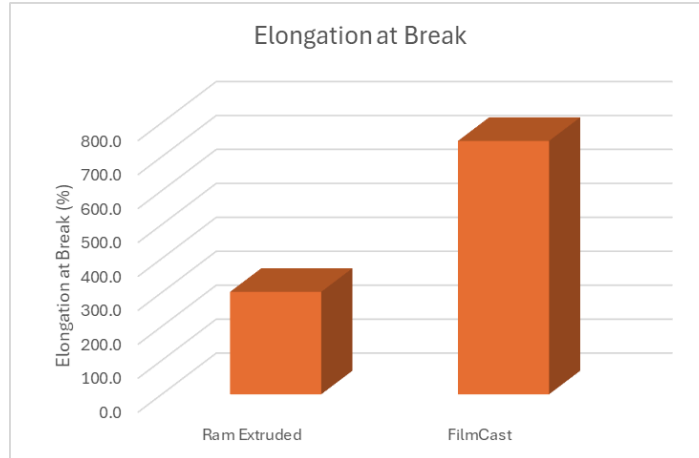
Any of the polyimide offerings can be further modified with additives such as PTFE for decreased friction on the inner diameter or colorants for marketing purposes to further tailor the material to a particular application or device.

4.0 PTFE

Furthermore, Confluent Medical is proud to offer a variety of PTFE options for medical applications:

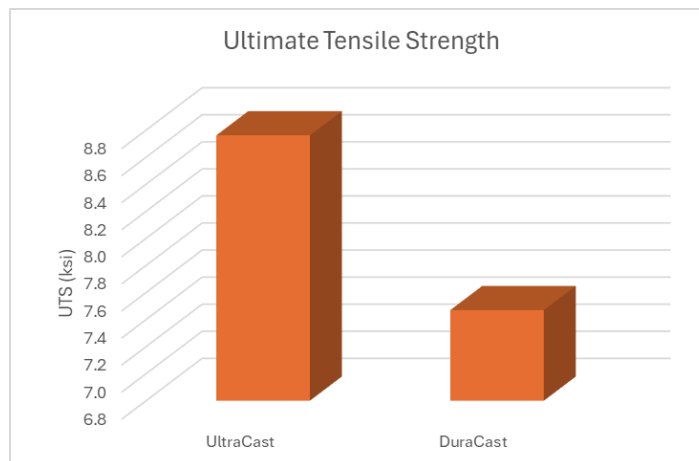
PTFE Type	Advantage
FlexaCast	Higher Elongation
DuraCast	Higher Abrasion Resistance
UltraCast	Higher Tensile Strength

FlexaCast Filmcast PTFE is the industry standard PTFE utilized in many different medical devices. When compared to ram extruded PTFE, Filmcast PTFE has more flexibility and more than twice the amount of elongation, making it a prime choice for medical devices that must navigate tortuous anatomy.



DuraCast Filmcast PTFE has higher abrasion resistance than standard Filmcast PTFE. This option is therefore ideal for applications where multiple tool passages or device exchanges are required or in other situations where increased durability is beneficial.

UltraCast Filmcast PTFE has a higher tensile strength than DuraCast PTFE. This option is useful for applications that involve stents or other devices that might cause other PTFE liners to wrinkle or elongate.



Finally, Confluent has the ability, expertise, and experience to utilize customer-preferred PTFE dispersions to match existing biocompatibility data. This allows the customer to leverage previous biocompatibility testing for new projects, reducing the time and financial obligations necessary to launch a next-generation or new device.

5.0 Next Steps

Combining any of these materials with braid reinforcement or subsequent outer jackets results in a composite shaft that is tuned to your unique device requirements. It is no longer necessary to compromise on medical device material performance when you can select the material properties to power your device!

To receive a quotation or more information, please reach out to sales@confluentmedical.com.