

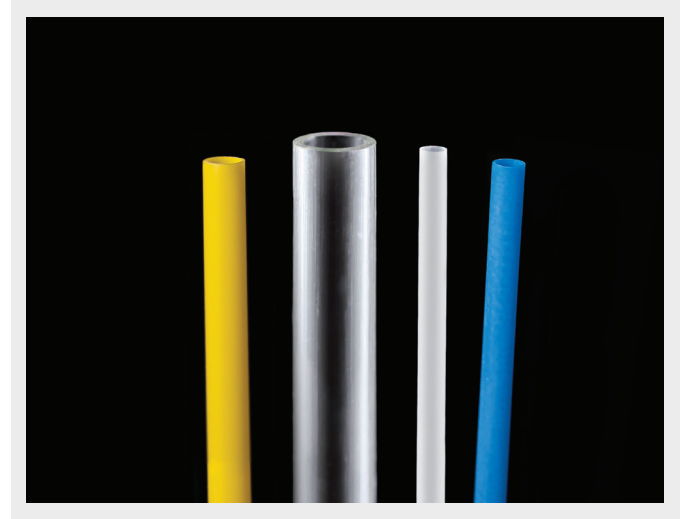
# NYLON 6/6



## OVERVIEW

Since its development in 1935, nylon has found a home in applications ranging from automotive and aerospace to life saving medical devices. Today the family of nylon resins has expanded to meet the demands of a wide range of custom applications.

The strongest of all aliphatic nylons, Nylon 6/6 offers good abrasion resistance compared to Nylon 6. The addition of fillers such as glass fiber can improve stiffness and enhance fatigue resistance. Nylon 6/6 improved low temperature toughness translates into more robust performance in cold environments than Acetal, PBT or Nylon 6.



Extruded Nylon 6/6 tubing available in a variety of colors and sizes.



TENSILE STRENGTH



ABRASION RESISTANCE



BIOCOMPATIBLE

## APPLICATIONS

- Catheter jacket
- Electrical insulation
- Furcation tubing
- Tether for GI sutures
- Fluid handling

## PRODUCTS

- Extruded tubing
- Custom profiles
- Multi-Lumens
- Sub-Lite-Wall® tubing
- Monofilament
- Spiral cut




## KEY PROPERTIES




- Superior abrasion resistance compared to nylon 6
- Good fatigue resistance
- USP Class VI approved
- High melting point (505 °F / 263 °C)
- Superior tenacity and elasticity
- Strongest aliphatic nylon






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The information presented in this publication is believed to be accurate and is not intended to constitute a specification. Property characteristics are dramatically impacted by geometry and processing method, thus properties of extruded parts may vary. In some instances, data may not be available for publication and will be notated as "na" where applicable. These tables are meant to serve as a general guideline only. Users should evaluate the material to determine suitability for their own particular application.

PHYSICAL		ASTM	Zytel ST801 NC010	Zytel 42A NC010
	Density (g/cc)	D792	1.08	1.14
	Water Absorption (%)	D570	1.2	1.2
	Oxygen Index (%)	D2863	na	na

MECHANICAL				
	Ultimate Tensile Strength (MPa)	D638	52	86
	Elongation at Break (%)	D638	60	90
	Flexural Modulus (GPa)	D790	0.169	0.283

ELECTRICAL				
	Volume Resistivity ( $\Omega$ -cm)	D257	$1 \times 10^{14}$	$1 \times 10^{15}$
	Dielectric Constant 1MHz	D150	3.2	4.0

THERMAL				
	Thermal Conductivity (W/m-K)	C117	na	na
	Melt Temp ( $^{\circ}$ C)	D 3418	263	263
	Glass Temp ( $^{\circ}$ C)	D 648	216	210

### - OVER 50 YEARS OF INDUSTRY SOLUTIONS -

Zeus delivers precision polymer solutions that transform businesses, markets and lives. We have dedicated ourselves to building partnerships, products and services for the benefit of our customers.

Headquartered in Orangeburg, South Carolina, Zeus employs approximately 1,300 people and operates multiple facilities around the world.