

NYLON 11 Polymer

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.

Nylon 11 offers exceptional low water absorption for a PA (c. 2.5% at saturation), which leads to excellent dimensional stability. A true all-weather performer, it excels in extreme climates. Nylon 11 performs significantly better in wet environments than Nylon 6 and 6/6 while delivering higher strength and better heat resistance than Nylon 12. It also has high impact resistance at sub-zero temperatures and high pressure resistance. Nylon 11 is extremely robust, with excellent chemical resistance and high abrasion resistance. It also possesses a low coefficient of friction. UV resistance compared to other PAs is reasonable.



Extruded Nylon 11 tubing in a variety of colors and sizes.

APPLICATIONS

- Catheter jacket
- Electrical insulation
- Delivery systems for catheters
- Furcation tubing for fiber optics
- Optical coatings
- Pneumatic and hydraulic systems
- Petroleum industry / drilling

AVAILABLE PRODUCTS

- Extruded tubing
- Custom profiles
- Multi-lumens
- Sub-Lite-Wall™ tubing
- Monofilament
- Spiral cut
- Bump tubing
- Lay-Flat tubing

QUICK SUMMARY OF PROPERTIES

- Exceptional flexibility
- Low moisture absorption
- Chemically resistant
- Class VI approved resins available
- High impact resistance at sub-zero temperatures
- High abrasion resistance



TENSILE STRENGTH



FLEXURAL MODULUS



MOISTURE ABSORPTION



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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	Rilsan® BENSO TL
	Water Absorption (%)	D570	0.9
MECHANICAL		ASTM	
	Ultimate Tensile Strength (MPa)	D638	10
	Elongation at Break (%)	D638	380
	Flexural Modulus (GPa)	D790	0.110
ELECTRICAL		ASTM	
	Volume Resistivity (Ω - cm)	D257	1.0×10^{14}
	Dielectric Strength (V/mil)	D149	30
THERMAL		ASTM	
	Melt Temp ($^{\circ}$ C)	D3418	189

