



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

TORLON®

Item:	Torlon® (polyamide-imide)	
Description:	<p>Torlon®, being a high-end engineered thermoplastic, features properties such as high thermal endurance, high dimensional stability, low creep, exceptional high heat capability, and broad chemical resistance over an average high temperature range.</p> <p>Capable of operating at a continuous temperature of 500°F and ideally suited for bearing, seal, and electrical parts requiring heat resistance.</p> <p>Torlon® machining to close tolerances is easily achieved with The Gund Company. The Gund Company has a complete stock of Torlon® rods, sheets, and tubes ready for custom fabrication.</p>	
Applications:	<ul style="list-style-type: none"> • Electrical insulators • Seals • Valve plates 	
Key Characteristics:	<ul style="list-style-type: none"> • High Impact resistance • High creep resistance • Excellent dimensional stability 	
Availability:	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.

Length, width, thickness, and diameter sizes are available in a wide variety, with the proper product specified for your particular application. Product colors will vary according to material type.

Typical Properties	Test Method	Torlon® 4203 Electrical Grade	Torlon® 4301 Bearing Grade	Torlon® 5530 Glass Filled
Specific gravity (lb/in ³)	ASTM D792	0.051	0.052	0.059
Water Absorption, immersion 24 hours (%)	ASTM D229	0.4	0.4	0.3
Tensile strength (psi)	ASTM D638	18,000	12,000	15,000
Tensile modulus (psi)	ASTM D638	600,000	800,000	900,000
IZOD impact, notched (ft-lbs/in of notch)	ASTM D256	2.0	0.8	0.7
Hardness, Rockwell	ASTM D785	E80(M120)	E70(M106)	E85(M125)
Flammability Rating	UL 94	V-O	V-O	V-O
Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	ASTM D696	1.7	1.4	2.6
Glass Transition Temp (°F / °C)	ASTM D3418	527° / 275°	527° / 275°	527° / 275°
Max Operating Temp (°F / °C)	ASTM D3418	500° / 260°	500° / 260°	500° / 260°
Dielectric Strength (V/mil) short time, .125" thick (V/mil)	ASTM D149	580	--	700

Data supplied above are typical values and are not to be considered specification values. All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.