THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

VESPEL®

Item:	Vespel® (polyimide)	
Description:	Meets Military Specification GE A50 TF146 Class A, ASTM-D 6456-99 Type 1, AMS 3644 Class 1, Mil-R-46198 Type 1 Vespel® is a high performance polyimide material that combines heat resistance, lubricity, dimensional stability, chemical resistance, and creep resistance. Ideal for use in hostile and extreme environmental conditions. The Gund Company has the ability to machine Vespel® to close tolerances, ensuring ,we deliver, and you receive, the exact Vespel® machined parts you need. Several grades of Vespel® are available. For additional information on Vespel® plastic materials, contact your local Gund Company representative. Vespel® is manufactured by DuPont.	
Applications:	• Wear strips • Bushingss • Thermal and electrical insulators	
Key Characteristics:	• Dimensionally stable • High wear resistance • Resistance to radiation	
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**	Vespel® Unfilled	Vespel®15% graphite	Vespel®40% graphite	Vespel® 10% PTFE, 15% graphite	Vespel®15% Moly
Specific gravity (lb/in³)	ASTM D792	0.051	0.055	0.060	0.056	0.058
Water Absorption @ 73˚F, immersion 24 hours (%)	ASTM D570	0.24	0.19	0.14	0.21	0.23
Water Absorption @ 122˚F, immersion 24 hours (%)	ASTM D570	0.72	0.57	0.42	0.49	0.65
Tensile strength @ 73˚F (psi)	ASTM D638	12,500	9,500	7,500	6,500	8,200
Tensile strength @ 500˚F (psi)	ASTM D638	6,000	5,500	3,400	3,500	--
Tensile modulus (psi)	ASTM D638	--	--	--	--	--
IZOD impact, notched (ft-lbs/in of notch)	ASTM D256	0.8	0.8	--	--	0.4
Flammability Rating	UL 94	V-O	V-O	V-O	V-O	V-O
Coefficient of Linear Thermal Expansion (x 10-5 in./in./°F)	ASTM D696	3.0	2.7	2.1	3.0	2.9
Dielectric Strength (V/mil) short time, 1/8" thick	ASTM D149	560	250	--	--	--