



# THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

## Fiberglass Reinforced Epoxy Rods

<b>Item:</b>	<b>Fiberglass Reinforced Epoxy Threaded &amp; Unthreaded Rods</b>
<b>Availability:</b>	Threaded Rods - Nominal Diameters: M10, M12, M16, M20 Maximum Length: 600 mm (24") Threaded / Up to 2400 mm (96") if not threaded.
<b>Fabricated Parts:</b>	The Gund Company custom fabricates materials to the exact specifications and drawings of our customers. Standard Size is M10 - M20 (3/8" - 3/4") Larger size and non standard thread, pitch available upon request. The molded rods meet ANSI/NEMA IM 60000-2021 (G11) and IEC 61212-3-3 EPCG 42 requirements.

Threaded Rod			Test Method	Units	M10 - 1.5	M12 - 1.75	M16 - 2	M20 - 2.5
Breaking Load	Nut Height	1 X Diameter		kN (lbf)	13 (2923)	18 (4047)	36 (8094)	54 (12140)
	Nut Height	2 X Diameter			20 (4497)	31 (6969)	55 (12365)	82 (18435)

Molded Rod Material (G11) <sup>(1)</sup>		ASTM Test	Units	G11 Nominal
Standard Color		--	--	Natural
Type of Resin		--	--	Epoxy
Specific Gravity		--	g/cc (lbs./in3)	1.9 (0.069)
Flexural Strength (0.062")	LW Condition A	ASTM D-790	Mpa (ksi)	552 (80)
	CW Condition A			486 (70)
	LW Condition E-1/150:T-150			276 (40)
Flexural Modulus (0.062")	LW	ASTM D-790	Gpa (ksi)	29 (4200)
	CW			27.6 (4000)
Compressive Strength - (0.500")		ASTM D-695	Mpa (ksi)	483 (70)
Tensile Strength (0.125") - LW		ASTM D-638	Mpa (ksi)	283 (41)
Perpendicular Electric Strength - (90°C in Oil, 1.5mm)		IEC 60243-1	kV/mm	15
Parallel Breakdown Voltage - (Stepped 90°C in Oil, 3mm)		IEC 60243-1	kV	>45
Dielectric Strength (0.062") - Condition A, Oil		ASTM D-149	V/mil	485
Water Absorption (0.188")		ASTM D-229	%	0.15
Coefficient of Thermal Expansion		--	" / °C x 10-6	10.0
Thermal Endurance		IEC 60216	°C	180
Insulation Resistance - (After Water Immersion)		IEC 60167	MΩ	>10 <sup>7</sup>
Flammability (0.250")		UL94	Class	VO <sup>(2)</sup>

LW = Length-Wise ; CW =Cross-Wise

<sup>(1)</sup> Values are based on unthreaded rod/base material

<sup>(2)</sup> G-11H from The Gund Company is VO at 0.25" and greater thickness. Below this thickness is HB

AS9100C Certified | ISO/AS9100 Certified QMS | RoHS Compliant | ITAR Compliant

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