ATLAS FIBRE

Rolled & Molded Rod Specifications

Value	Test Method	Grade "L"	Grade FR4
SPECIFIC GRAVITY	ASTM D349	1.3	1.8
HARDNESS, M SCALE	Rockwell M	105	110
TENSILE STRENGTH (psi)	ASTM D349	11,000 psi	25,000 psi
COMPRESSIVE STRENGTH (psi)	ASTM D349	19,000 psi	35,000 psi
FLEXURAL STRENGTH (psi)	ASTM D349	16,000 psi	35,000 psi
HEAT RESISTANCE	°F Short time	275°	300°
	°F Continuous	225°	250°
SPECIFIC HEAT	Calories/gram/°C	.035 - .040	0.26
THERMAL CONDUCTIVITY	10^{-4}cal/sec/cm²/(°C/cm)	7	1.2
COEFFICIENT OF THERMAL EXPANSION	10^{-6}cm/cm/°C	20	10
WATER ABSORBTION	Under .250" diameter	2.50%	0.75%
% - 24 hrs	.250" to .499" diameter	2.00%	0.50%
	.500" to 999" diameter	1.50%	0.50%
	1.00" diameter and over	1.20%	0.50%
DISSIPATION FACTOR	10^6 Cycles, Condition A		0.032
DIELECTRIC CONSTANT	10^6 Cycles, Condition A		4.80
ELECTRIC STRENGTH	Volt/Mil, Short time		500
FLAMMABILITY RATING	U.L.	94HB	94V-O
MILITARY SPECIFICATION		MIL-I-24768/15	MIL-I-24768/27

Atlas Fibre Company Rolled and Molded rods are also compliant with current and/or cancelled specifications NEMA LI1-1998, MIL-P-79, LP509, and ASTM D709

Atlas Fibre Company Rolled and Molded rods are composed by rolling layers of resin impregnated material between pressure rollers and curing the rods in cylindrical molds under high heat and pressure. During this process the structures of these thermoset materials cross link, creating solid homogeneous rods that will not soften appreciably under the reapplication of heat. Our rods are then precision ground to the closest tolerances in the industry.

All values given are average based on test samples. The performance characteristics attributed to the products described herein are based on assumptions of general and reasonable use. As results cannot be predicted or guaranteed for any specific set of conditions, each user should make their own determination of these products' suitability for their particular application. 05/19