

FIBERGLASS GATE

Subject: Mechanical Properties of Fiberglass Reinforced Thermoset Polyester Resin Material (Open Mold Laminate).

<u>Results: (MFG) ASTM</u>	<u>Values, Units</u>	<u>Standard Deviation, Units</u>
Thickness by ASTM D 638-97	0.253 inches	0.009 inches
Barcol Harness by ASTM D 2583-95	40	2.8
Tensile Strength by ASTM D 638-97	18,500 psi	1,800 psi
Flexural Strength by ASTM D 790-97	27,900 psi	820 psi
Flexural Modulus by ASTM D 790-97	1,080,000 psi	39,000 psi
Notch Izod Impact by ASTM D 256-A	15.4 ft-lbs./ inch	0.9 ft-lbs./inch
Water Absorption by ASTM D 570	0.13 percent	0.006 percent
Coefficient Thermal Expansion by ASTM E 831	20.7 X 10 ⁻⁶ in/in/0F	-----

Procedure:

The Tensile and Flexural tests were conducted with a 30,000lbs load cell. The hardness tests were performed with a Barcol Hardness Tester; the Izod Impact Tests were performed on a Impact tester; and the CTE was performed on a Thermomechanical Analyzer.