

TECHNICAL DATA

FiberForce® & BarForce® Plastic material properties

Test Methods	English Units		Metric Units		
Test	ASTM Test	Value	Units	Value	Units
Flexural Strength	D6109	2750	PSI	193	Kg/cm ²
Flexural Modulus Secant @ 1% strain	D6109	306080	PSI	21520	Kg/cm ²
Compression Strength Parallel to grain	D6108	2842	PSI	200	Kg/cm ²
Compression Strength Perpendicular to grain	D6108	1482	PSI	104	Kg/cm ²
Compression Modulus Strength Parallel to grain – Secant at 1% strain	D6108	159576	PSI	3804	Kg/cm ²
Compression Modulus Strength Perpendicular to grain – Secant at 1% strain	D6108	54119	PSI		Kg/cm ²
Chemical Resistance Salt water	ASTM D543 ASTM D543/D638	.05 3736	% by Weight PSI – Tensile – 7 Day soak		
Chemical Resistance Gasoline	ASTM D543 ASTM D543/D638	2.9 3431	% by Weight PSI – Tensile – 7 Day soak		
Chemical Resistance #2 Diesel	ASTM D543 ASTM D543/D638	0.98 3596	% by Weight PSI – Tensile – 7 Day soak		
Hardness	D4329	67	Shore D		
Specific Gravity	D6111-97	0.93	g/cc	0.93	g/cc
Flash point		644	Deg F	340	Deg C
Water Absorption	D570	0.25	% by Weight – 24 hour		
Thermal Expansion	D6341-98	0.000033	Inch/Inch/Deg F		
Average Screw pull out	D6117	646	Lbs	293	Kg
Flame Spread	E84(03a)	62			
Flame Spread Classification	E84(03a)	60			
Smoke Developed	E84(03a)	230			
Smoke Developed Classification	E84(03a)	250			
Spontaneous Ignition	D-1929	824	Deg F	440	Deg C
Tensile test	D638	3623	PSI	254	Kg/cm ²
Notched impact resistance Method A	D256	2.77	Ft*LB/IN		
Brittleness – Base materials	D746	< -40 Deg C			
Abrasion resistance	D4060	<0.023	Grams (0.043%)		
Hardness	D4329	66	Shore D		
Ultraviolet	D4329	< 10	% Change in Type D Durometer at 500 hours		
Static coefficient of Friction -Dry	D2394-83(99)	.53			
Static coefficient of Friction -Wet	D2394-83(99)	.51			
Sliding coefficient of Friction -Dry	D2394-83(99)	.23			
Sliding coefficient of Friction -Wet	D2394-83(99)	.51			
Formaldehyde gassing	D6007	0.02	ppm		

The technical data on this page represents only average values and not minimum values. Safety factors must be added into the design.

Ultraviolet Weathering

An ultraviolet stabilizer is added at the time of manufacture to help protect against ultraviolet degradation of the plastic surface in exterior applications.

