

BENEFITS

- High compressive strength
- Excellent fiberglass adhesion
- Corrosion resistant
- Abrasion resistant
- Electrical and thermal insulation
- High water resistance
- 50% the weight of aluminum
- Sheets available up to 60" x 144"
Available in 1/4" – 3" thickness
- Made in the USA

APPLICATIONS

Backer boards for fiberglass boat hull construction:

- Pedestal mount tables / seating
- Railings / stanchion
- Transom reinforcement
- Swim platform reinforcement
- Gunnel mount accessories
- Moisture resistant coring (under windows)

Property	Test Method	Units	Results
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PHYSICAL PROPERTIES

Density		Lbs./ft ³	75.84
Specific Gravity		g/cc	1.213
Water Absorption	ASTM D570	%	1.55%
Hardness (Shore D)	ASTM D 2240-05		90
Tensile Strength	ASTM D3039	Psi	X Direction = 13,100 Y Direction = 19,200
Compressive Strength	ASTM D695	Psi	X Direction = 15,900 psi Y Direction = 18,400 psi Z Direction = 30,000 psi
Compressive Modulus	ASTM D695	Msi	X Direction/Edge = .96 Y Direction/Edge = 1.53 Z Direction/Face = .33
Flexural Strength	ASTM D790	Psi	X Direction/Face = 22,000 Y Direction/Face = 17,300 X Direction/Edge = 20,400 Y Direction/Edge = 16,100
Flexural Modulus	ASTM D790	Msi	X Direction/Edge = 1.90 Y Direction/Edge = 1.15 X Direction/Face = 2.18 Y Direction/Face = 1.40

THERMAL PROPERTIES

Thermal Expansion	ASTM E831	x10 ⁻⁶ in/in/F	X Direction = 5.2 Y Direction = 12.8 Z Direction = 45.9/73.5 ²
Thermal Conductivity	ASTM D2214	cal-cm Cm ² -sec- °C	5.1x10 ⁻⁴

ELECTRICAL PROPERTIES

Dielectric Strength	ASTM D149	Volts/mil	150
Dielectric Constant	ASTM D150	Volts/mil	9.24
Dissipation Factor	ASTM D150	Volts/mil	.29
Fire Rating	UL 723	Flame spread 25 Smoke developed 40	Class A

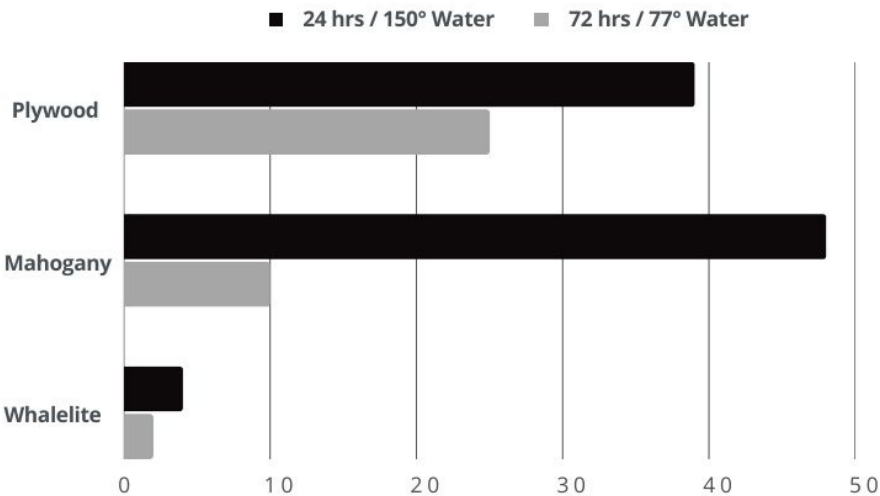
Property	Test Method	Units	Results
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PHYSICAL PROPERTIES

Izod Impact (Face Impact)	ASTM D570	Ft./Lbs./in. of Width	X Direction = 2.48 Y Direction = 1.46
Izod Impact (Edge Impact)	ASTM D570	Ft./Lbs./in. of Width	X Direction = 2.48 Y Direction = 1.46
Abrasion Resistance - Taber Abraser (CS - 17) (1/4" x 4" x 4")		Weight Loss Per 1000 Revs Wear per 1000 Revs (Inches) Coefficient of Friction (Unpolished)	0.0112% 0.00011 0.2
Burn Rate			Very Slow
Aging			Improves Mechanical & Electrical Properties
Sunlight			Darkens Surface
Clarity			Opaque
Weak Acids			None to Slight Depending on Acid
Strong Acids			None to Slight for Reducing & Organic Decomposing by Oxidizing Acids
Weak Alkalinity			None to Slight for Reducing & Organic Decomposing by Oxidizing Acids
Strong Alkalinity			Slight to Marked Depending on Alkalinity
Organic Solvents			None
Metal Inserts			Inert

- The two values for C.O.L. T. E., represents coefficients below and above glass transition temperatures (130° F) respectively.

WATER ABSORPTION CAPACITY OF SUBSTRATE MATERIALS

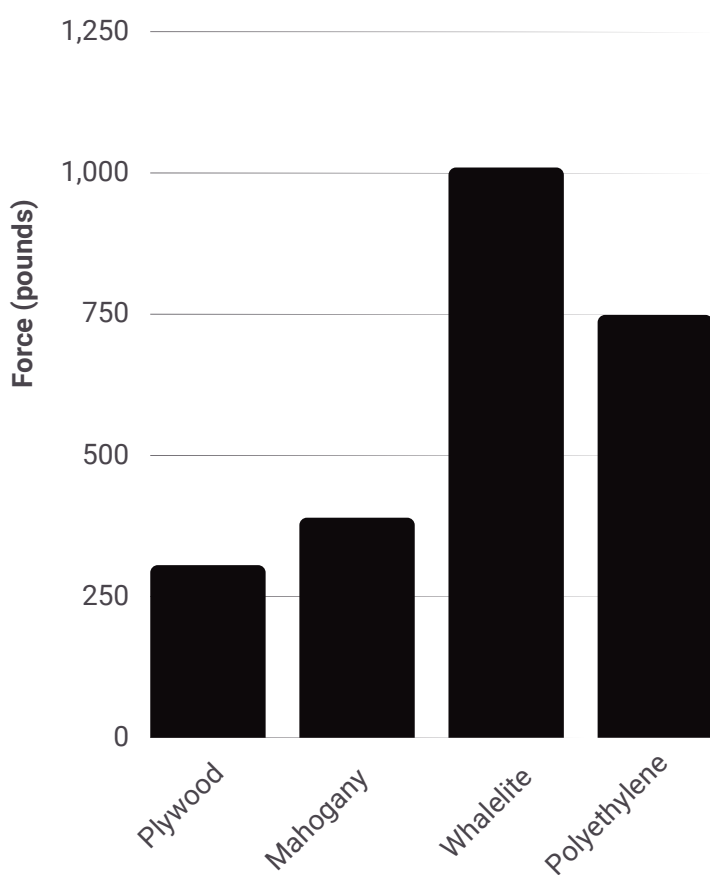


SCREW TESTING

Screw testing with Whalelite is crucial to establishing its ability to withstand the stress and load of screws and fasteners. This test can help determine the material's inherent qualities and whether it is suitable for use in specific applications. Additionally, the results of screw testing with Whalelite whale board can provide valuable insight into the effectiveness and reliability of different fastening methods and hardware. Therefore, screw testing with Whalelite forms a critical part of the material selection process, and its results can help engineers, architects, and designers make informed decisions about its use in their projects.

FORCE REQUIRED TO INITIATE SCREW PULL OUT

All board materials tested with #10 (0.1875) wood screw



SCREW RETENTION STRENGTH OF 1/2" WHALELITE

Subjected to 300 lb. Static and +/- 200lb Dynamic load cycling

