

CONSTRUCTION MATERIAL

CONDITION	ALUMINIUM	GRP	STEEL
Lightweight	Lightweight	A 16 meters G.R.P hull will be about 2 tones heavier than same hull in Aluminium. Also G.R.P can absorb water & become even heavier	60 % heavier than Aluminium
Strength (Inter laminar)	Unaffected by repeated hull. Slamming in heavy Sea. Inherently strong and light.	Low interlaminar strength means higher risk of delamination due to hull slamming and other fatigue or impact related damage.	Good strength
Strength (Yield Stress)	High resistance to impact damage or grounding. even at speed. Unlikely to suffer hull penetration.	Suffers brittle failure with even minor impacts. Will not absorb impact so will crack and lose watertight integrity. Prone to damage from grounding.	Good strength
Maintenance & Repair	Nil maintenance and quick to repair. Easy to retro-fit equipment or alter design after construction.	Maintenance is frequent G.R.P needs to dry out properly before repair. Repairs never restore original strength	Requires constant maintenance because of corrosion
Corrosion Resistance	Marine grade alloys have outstanding resistance to sea water corrosion comparable to bronze or titanium . No protective coating necessary.	G.R.P not subject to corrosion	Steel plate has no corrosion resistance and needs constant coating protection to prevent corrosion
Osmosis (Water Absorption)	Cannot absorb water and metal unaffected by marine growth	Fiberglass absorbs water when gel coat damaged. Pitting & blistering can be a serious problem Hull damage caused by marine growth	Unaffected by osmosis
Fire	Non-combustible. Boats remains intact . No problem of static electricity build-up	Polyester burns rendering boat unusable Fire-retardant resin can be used but may give off toxic fumes. Risk of static electricity build up	Non-combustible.
Ultra Violate Sunlight Exposure	Unaffected by Ultra Violate Light	Some resins are sensitive to sunlight. Gel-coat breaks down & Surface cracks appear. This hastens water ingress.	Unaffected by Ultra Violate Light



COMMUTER CRAFT

www.commuter-craft.com
sales@commuter-craft.com