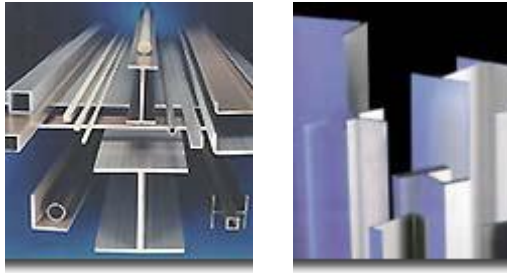


RE-STRUCT GRP Profiles vs. Aluminium Profiles



PULTRUSIONS vs. ALUMINIUM

Pultruded glass fibre reinforced structural shapes and plates have a number of significant advantages over aluminium extrusions. Pultruded GRP is electrically and thermally non-conductive, impact resistant, highly corrosion resistant and EMI/RFI transparent.

COMPARE!	RE-STRUCT Pultruded Fibreglass Structural Shapes	Aluminium Extruded Shapes
CORROSION RESISTANCE	Excellent corrosion resistance even in aggressive chemical environments. Surfacing veil and UV additives improve weather-durability.	Can cause galvanic corrosion. Corrosion resistance can be increased through anodizing or other coatings.
WEIGHT	Very lightweight - about 30% the weight of aluminium.	Lightweight - about 1/3 that of copper or steel.
ELECTRICAL CONDUCTIVITY	Non-conductive - high dielectric capability.	Conducts electricity – requires earthing.
THERMAL CONDUCTIVITY	Insulates - low thermal conductivity, about 1/250 of aluminium.	Heat conductor - high thermal conductivity.
STRENGTH	Pultruded fibreglass has 86% of the yield strength of aluminium and, kg for kg, stronger than aluminium in the lengthwise direction.	Homogeneous material.
FINISHING AND COLOR	Pigments added to the resin provide colour throughout the part. Special colours available. Composite design can be customized for required finishes.	
EMI/RFI TRANSPARENCY	Transparent to radio waves, EMI/RFI transmissions; used for radar and antennae enclosures and supports.	Highly reflective.
FABRICATION	Easy field fabrication with simple carpenter tools - utilizes adhesive bonding and/or mechanical joining. No torches or welding.	Welding, brazing, soldering or mechanical joining Required.
COST	Slightly higher tooling costs; price per lineal foot marginally higher.	Extrusion tooling is relatively inexpensive. Part price comparable or slightly lower.
IMPACT RESISTANCE	Will not permanently deform under impact even in sub-zero temperatures.	Easily deforms under impact.