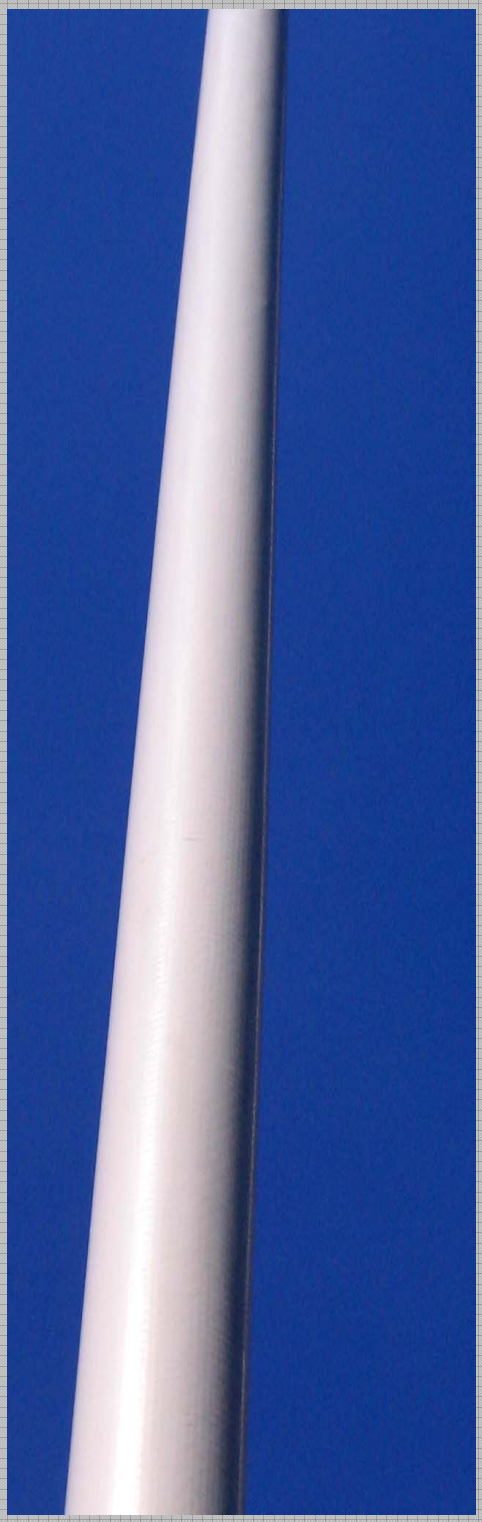
PILA group

SUSTAINABLE



PILA group® is Australia's leading manufacturer of high quality sustainable fibreglass goal posts for rugby league, rugby union, AFL and football (soccer), flag poles and banner poles. Low maintenance - Australian Made.

What is GRP? GRP stands for Glass Reinforced Polyester, outside the industry it is commonly referred to as fibreglass. Sheets of glass fibre matting are layered over a mould which is then coated with a special resin, heat set and hardened. The hardened polymer is then finished according to the customer's specified finish.

Why Choose Sustainable PILA Fibreglass goal posts and flag poles?

The advantages of fibreglass over other common materials:

- Smooth aesthetically pleasing gelcoat finish that never needs recoating.
- Cost effective as it is corrosive resistant and virtually maintenance free.
- Easily and cheaply repairable unlike steel, aluminium or timber.
- Good chemical resistance and dielectric properties (electrical insulator).

The advantages of fibreglass in comparison to STEEL:

- High quality zinc or galvanising is not required, as is required on steel.
- It is resistant to salt water, to sulphur, chlorine or basic environments.

The advantages of fibreglass in comparison to ALUMINIUM:

- No electrolytic corrosion due to contact of metals in humid environments.
- Much longer life span in basic, chlorine or halogen atmosphere.

The advantages of fibreglass in comparison to STAINLESS STEEL:

- Absence of hollow corrosion and corrosion under tension (mechanical).
- Will not get rust spots or pitting on the surface, as stainless steel does.

Mechanical Strength:

A specific resistance, 2 to 4 times higher traditional materials, allows significant save of weight. According to applications, a GRP solution (i.e.: 70% fibres, 30 % resin) allows a weight save, for equal resistance, up to:

- 75% in comparison to steel.
- 65% in comparison to aluminium.
- 60% in comparison to stainless steel.
- Assembly and installation times and costs are reduced by up to 50%.

The GRP advantages in comparison to metals:

- No earthing required therefore no requirement for electric continuity test.
- Easy to work (cut, drill) on site with no burring and no finishing required.

Thermal / Electrical Insulation:

- Excellent thermal insulation (1000 times less heat conductive than alloy).
- No spark risks due to contact with other materials.
- Excellent electrical insulation (~ 6 KV / mm).

The utilisation of composite materials, in particular glass reinforced polymer (GRP), offers new applications and new markets every day. Thanks to the development of new products and constant improvement of the fabrication process, PILA group continuously offers new opportunities to our clients.

PILA group

SUSTAINABLE

What are the environmental benefits of choosing PILA Fibreglass?

There are significant environmental benefits of choosing sustainable PILA fibreglass products over metal and timber products. There are no large smoke plumes or other forms of environmental pollution from the manufacture of GRP (glass reinforced plastics) / FRP (fibre reinforced plastics) products. Unlike the production of metal and timber products, the production process for GRP / FRP products is extremely benign. Even the production of the base resins and the glass fibre rovings have little environmental impact when compared to the production of steel for example. As with most synthetic products the resins are derived from petroleum by-products. Although there appears to be little threat to the sustainability of Polyester and Vinylester resins and glass fibre rovings, research is continually seeking alternative raw materials that are able to provide similar or better qualities. Development continues with the use of bio-composites and natural fibres. GRP / FRP Polyester and Vinylester products should not be confused with what is generalised as Plastics.

The ester resins are more environmentally friendly and sustainable because they do not break down as quickly as the PVA and PVC products. Consequently, there is no continual need to manufacture replacement materials and dispose of or recycle the old. The recycle process alone creates a larger carbon footprint than the production of new GRP / FRP products. The nature in which Plastics break down often results in the surface becoming dry, brittle and powdery. This powder ultimately disperses into the local environment when used outdoors. It is generally acknowledged that GRP / FRP Polyester and Vinylester products will have a service life of more than 50 years and many suggest a longevity of 100+ years, giving a greener and more cost effective product.

Because GRP / FRP products have so many great green benefits to the development of society and industry in general, there is continual research into the methods of disposal of waste materials. Fibreglass is more environmentally friendly, economical and resistant to corrosion than steel, aluminium and timber. Using fibreglass in lieu of steel, aluminium and timber also means there will be less demand upon our natural resources and a reduction of the environmental impact resulting from the production of metals and the disposal of their waste.

What are the other benefits of choosing sustainable PILA Fibreglass?

Sustainable - significant environmental benefits compared to metal / timber.
Safer - a low conductor of electricity / lightning so is safer than metal.
Low Conductor - non-metallic does not spark / safe near electrical hazards.
Corrosion Resistant - designed for aggressive environments; no treating.
Low Maintenance - maintenance free; won't rust, rot, oxidise or decay
Colour Fast - pigmented surface will not darken, fade, powder or crack.
Natural Insulator - requires no thermal break / will not absorb moisture.
Durable - gelcoat is impervious to salt spray and polluted atmospheres.
Sound Absorbing - acoustically efficient / high rating for sound deadening.
Impact Resistant - inherent flexibility to resist impact and failure.
Lightweight - up to 75% lighter than steel / easier and cheaper to install.
Strong - high strength-to-weight ratio so is rigid but also naturally flexible.
Easy To Handle - strong but light weight for ease of lifting / OH&S safe.
Easy to Store - multi-piece design allows for easy transport and storage.