



GRP PROFILE Transport Industry



Since 1998 TECNIPUL has been dedicated to the design and manufacture of GRP profiles (Glass fiber Reinforced Polyester)) using the pultrusion method.

Pultrusion is a continuous automated production process of GRP profiles, which allows obtaining any type of profile with an optimum surface finish.

Main advantages of the use of composite materials in GRP in the transport Industry:



Lightness: The reduction of weight influences the fuel saving and facilitates the manipulation and the subsequent assembly of the material.



Excellent mechanical properties: The flexibility and memory of composite materials offer high impact and fatigue resistance, thereby increasing safety against impact.



Fire-retardant properties: The composition of the material is adapted to the use and / or destination of the profile to achieve the fire regulations and more demanding fumes.



Corrosion resistance: The durability of the material is not affected by hard weather conditions, atmospheric pollution or saline or acidic environments.



Thermal, electrical and acoustic insulation: The use of GRP profiles reduces the energy consumption of cooling and heating systems, increases travel comfort and does not produce electromagnetic fields.



No maintenance: The benefits of our profiles guarantee a long life of the vehicles, with no added costs.



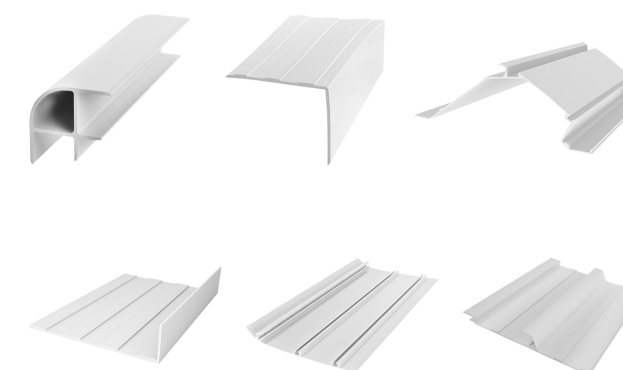
Low coefficient of expansion: The profiles in GRP do not suffer changes in front of the thermal oscillations.



The evolution of the transport industry has always been parallel to the use of new materials.

At present, the use of profiles in GRP provides an improvement in weight, durability and safety with respect to materials traditionally used.

Pultrusion can provide solutions both exterior and interior.



Railway and coaches Industry.

External body panels:

Top and bottom fairings, under-window panels.

Internal Components:

All types of solutions requiring or not a optimum surface finish: ceilings, covers, lateral hatch, air conditioning and installation ducts, lateral panels, floors, etc.

Trucks and trailers.

Lateral panels, structural elements, angled corners and floor or panel fixing, skirting boards, baseboards, reinforcing bars, etc.

The excellent insulating properties of the material make it especially suitable for refrigerated trucks.

The freedom that gives us pultrusion in design, geometry and properties allows us to offer the most appropriate solution to the specific requirements that each client needs.



Custom Property - Pultrusion profiling. The manufacture of molds and profiles property of the client is a very common practice in Tecnipul. We provide customer with a highly qualified technical team in order to offer a product that meets the specifications and working conditions provided for each project.



Mechanization. The GRP profiles can be machined according customer needs. Conventional methods such as drilling, milling, cutting, etc. can be chosen. Or turn to machining by CNC numeric control if the project requires high precision.



Painting. The GRP profiles can be painted using polyurethane in two-component, been any RAL color obtained.

The technical characteristics of the GRP profiles can vary according to the geometry, thickness and profile type. Also the orientation, the weight of the fiber reinforcement used and the type of polymer matrix will influence it.



Profile measurements.

Maximum height: 600mm

Maximum width: 1500mm

Maximum thickness: 70mm

Minimum thickness: 2mm



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