
Data Sheet SG

SPIRAL WOUND THERMOPLASTIC VESSELS vs. GRP

Storage and Process vessels manufactured in heavy gauge thermoplastic materials exhibit many unique features when compared with glass fibre reinforced tanks with thermoplastic liners.

The thermoplastic vessels, by their nature, are a completely homogeneous construction and hence exhibit the same corrosion resistance throughout their structure, which means external spillage or leaching of chemicals into the walls of the tank has no effect on the structure.

GRP vessels on the other hand are limited in their design by the number of fill and empty cycles due to the brittle mode of failure of thermosets whereas the design of thermoplastic vessels, now governed by a Pan-European standard BS EN 12573, allows a *minimum* design of 10 years with unlimited fill and empty cycles due to the ductile nature of thermoplastics.

The homogeneous construction of thermoplastic tanks eliminates the differing thermal expansion characteristics of dual laminate constructions such as GRP vessels with thermoplastic linings.

Of increasing importance is the "green agenda" and here again thermoplastic comes into its own as the characteristic property of thermoplastic allows recycling of the vessel construction material at the end of its working life.

Homogeneous thermoplastic materials of construction can be easily cut and welded to form corrosion resistant complex tank or tower internals which can be totally immersed in corrosive solutions; the ductile nature of thermoplastics allowing their installation on simple flat concrete bases without the expensive base preparation recommended for a GRP vessel or tower.

Process Plant in Plastics

A full installation and commissioning service is offered with our process plant utilising the expertise of our experienced installation and commissioning engineers.

All Chem-Resist process plant is fabricated under our Quality Assurance system assessed to BS EN ISO 1901 covering the "design, fabrication and repair of chemical process plant in plastics, including storage tanks and fume scrubbing equipment" (Certificate No. FM14249).

If you have any questions relating to the many benefits of thermoplastic technology then please be in touch – we're always happy to help...