

Aerospace

Faster, higher stronger. Attwater's range of polyimide glass and phenolic cotton laminates is helping the aerospace industry take the next step in aerospace construction.

Choose the right laminate grade for your application:

Polyimide glass grade B34 – Our premium laminate: able to withstand higher temperatures while retaining its mechanical properties. A typical choice for mounting strips, gaskets and washers thanks to:

Excellent mechanical Strength

High temperature capabilities

Attwater's polyimide glass laminate is an essential choice for the aerospace industry.

Phenolic cotton laminate grade B10 - Lightweight, abrasion resistant and an ultra-fine weave that delivers high machinability. It is these properties that make phenolic cotton laminates ideal for use within wing and fuselage structures such as pipe and cable clamping blocks, fairlead assemblies and mounting strips. Parts may be painted and / or engraved.

Trusted by the aerospace industry

Attwater & Sons Ltd holds AS9100 approval. We are an approved supplier of machined parts and composite sheet for several Aerospace companies and sub-contractors.

Power generation and distribution

The power generation and distribution products we manufacture help our clients produce power safely, more efficiently and more effectively. Our products help extend machine life and improve reliability.

Among the products manufactured from our materials are:

- Epoxy glass wedges
- Phenolic paper, fabric and silicone spacers and supports in transformers
- Epoxy/polyester winding packing in rotating machines
- PTFE-faced phenolic paper phase barriers





Tel: +44 (0)1706 526 255

Fax: +44 (0)1706 350 187

Attwater

Rail industry

Improved performance coupled with improved safety makes Attwater's laminates and composites a natural choice for the rail industry.

Specific products in our range exhibit low flammability, low smoke emissions and low toxicity.

Grades B32 Silicone Glass and B30 phenolic glass both meet the requirements of the LUL SE970 flammability tests.

Choose Attwater composites and laminates for:

- Electrical insulation and mounting blocks on automatic partition doors
- · Signalling switch box liners
- General electrical insulation

Make Attwater a part of your machine.

Automotive

Attwater is at the forefront of creating lighter, stronger materials that improve performance, reduce weight and wear, and resist petrochemicals.

Attwater laminate is used in protectors for gearbox shafts, and as inserts to provide fixing points within GRP and carbon mouldings.

We believe this is just the beginning. The potential to bring further strength and efficiency to the automotive industry is an inherent part of our laminate and composite capability.

Marine

Attwater Group's marine challenges come in all shapes and sizes.

Our Custom Composites team created the tiller handles that helped speed UK sailing craft to gold in the 2008 Olympics. Our epoxy glass and carbon fibre sheet is used to provide mounting points for seats and deck mounted equipment within marine GRP structures. And our phenolic cotton tubes and staves can be found in stern and rudder bearings on much larger craft.

Lightweight and with a unique range of properties, the sheet and tube products in the Attwater range provide designers with the flexibility and choice of materials to solve many problems in the marine sector. So whatever your issue, challenge the team that's helped win Olympic gold.

General Engineering

Strength in depth

The engineering applications for Attwater industrial laminates and composite tubes are almost limitless. They are used to make bearings and supports, gears, clamps and countless other products stronger, safer and more effective.

From phenolic papers and cottons to glass grades such as polyimide: no matter how demanding the task, Attwater has the laminated plastics to perform.









Range specifics vary, yet all grades of laminate and composite are lightweight, easy to machine and possess:

- Good mechanical properties
- Good electrical insulation

High strength to weight ratio

Military

For a generation, servicemen and women in battlefield situations have relied on the composite components we produce to help them do their job and keep them safe.

Our products are at work in battlefield communications antenna systems, weapons systems, GRP mine hunter vessels, laser range finders and instrument support systems.

It is a highly technical and demanding market that expects product quality, reliability and the ability to meet the tightest of deadlines every time.

Discover why Custom Composites has an enviable reputation in supplying the defence industry with products that perform. Talk to our experts about developing the composite product for your military application.

Electrical Distribution

Attwater manufactures high performance laminates for transformers and switchgear.

- PGM, epoxy and SRBF materials are primarily used for machined parts in switchgear.
- PGM, SRBP, polyester epoxy and PTFE faced laminate: these materials are used extensively in switchgear and transformers.

Lectraglas EP™ glass fibre tubes have set the standard in composite materials throughout the world's electrical power generating and distribution industry for over 25 years.

Our experience and the high electrical insulation properties of our epoxy/glass materials make our products the ones OEMs and contractors ask for by name.

Products include:

- 150 types of interlocking and telescopic poles for power line, earthing and sub-station usage, capable of continuous working at voltages up to 33kV
- Insulating handles for high voltage testers
- Insulating bushes

- Battery sleeves for oil well logging equipment
- Insulators for conductivity measuring instruments
- A variety of machined insulating components

Our product range continues to grow as our client requirements develop.







Industrial

Higher temperatures, improved performance, better machinabilty, lower weight and a finer finish: composites bring a multitude of advantages to industry compared to traditional materials.

For a generation, Custom Composites has been helping industry deliver better product performance through the application of composite technology.

In partnership with manufacturing, engineering, process and medical sectors we are constantly developing new applications for our glass fibre and carbon fibre tubes.

It is this drive for new applications that has seen our products used in cryogenic (liquid helium) vessels, rollers and airshafts for converting machinery, robotics and high speed automation, oil industry products, medical prostheses, smoke detector maintenance equipment and many more.

What we do helps businesses' products perform better and become more cost-effective. We can do the same for you.

Telecoms/antennas

For three decades Custom Composites has been at the forefront of telecommunications shroud and antenna manufacture.

In military and domestic environments our products, which include specialised parallel and tapered tubes, help people and organisations communicate effectively.

Typical applications include:

- Mobile telephone network telecommunication shrouds
- Military tank whip antennas

- 3G antenna shrouds
- Military telescopic 9m masts

Talk to our experts about creating bespoke custom tubes for your telecommunications requirement.

Sports

A winning performance relies on more than the abilities of the athlete.

From racing yachts to gymnastic equipment to Formula 1, top teams rely on Custom Composites' advanced carbon fibre technology. Our work is present in motor racing refuelling booms and competition gymnastic equipment. Our composite dinghy spars, tillers and tiller extensions have helped British sailors to Olympic gold.







