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HYBRID AND ELECTRIC VEHICLES

INNOVATIVE COMPOSITE SOLUTIONS

Making an impact where weight drives performance



ABOUT US

We believe that by reducing the weight of vehicles and developing solutions for energy efficient products we can minimise the use of precious resources.

We do this because we're passionate about reducing fuel use and emissions and we want to model what innovative, responsible manufacturing looks like.

With over 60 years experience in the design and manufacture of high-quality, lightweight components for the transport industry, TRB is well placed to consult, design and manufacture solutions for customer applications. Our knowledge and expertise encompasses composite materials, bonding methods, and fabrication techniques. This makes us the perfect partner to deliver your product.

With facilities in the UK, Europe, and USA, we are able to maintain quality and deliver finished products to an exceptionally high standard.



FROM DESIGN TO DELIVERY

Design

At TRB, our team of design engineers develop concepts, detailed CAD drawings, FEA and physical testing.

Materials

We help choose the right set of materials to meet goals such as weight, strength, durability, and manufacturability.

Manufacturing

From low volume to large-scale production, our manufacturing principles deliver a consistently high product within short lead times. We are ISO 9001 certified to ensure that our manufacturing, testing and validation services meet the highest level of quality.

Finishing

We finish the product to the highest standard. Finishes include - wet painting in our state of the art facilities, approved by Trimite and Dupont.





AUTOMOTIVE

TRB have a wealth of experience working with their customers to reduce weight and increase strength. These are the two most requested briefs from the automotive industry.

Our expertise ranges from battery enclosures, chassis, floorpans and components where lightweight is critical.

Our wide range of products for the automotive industry.

- Battery Enclosures
- Chassis Components
- Floorpans
- Grabrails
- Flooring
- Ceilings
- Internal Partitions

- Cooling System Components
- Storage Modules
- Luggage Racks/Stacks
- Shelving
- Cabinets
- Coach Tables
- Doors (Internal/External)

BATTERY ENCLOSURES

More recently our expertise has been utilised in the design and manufacture of carbon fibre battery boxes for the next generation of fuel cell vehicles. From hi-speed recordbreaking supercars to coaches and commercial vehicles.

As the future moves towards electric and hybrid vehicles, reducing weight while increasing strength becomes paramount.

Using the right materials for the application is where TRB's knowledge and expertise sets us apart from the competition. We bring a strong understanding of design concepts, material composition, and manufacturing processes. This allows us to advise customers through their options, engineer the best solutions, and thoroughly test the outcome.

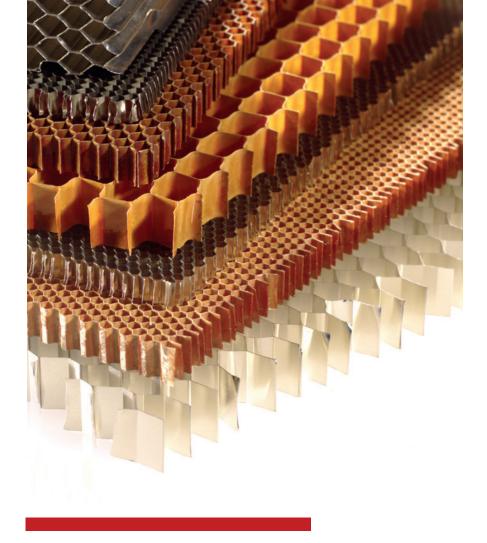


NIO EP9

TRB designed a carbon fibre battery enclosure for the NIO EP9. The enclosure was designed as a self-contained modular unit, that could be removed and replaced with ease.

The NIO EP9 holds the record for the fastest electric car in the world.





MATERIALS

Utilizing our experience and knowledge in composite design, we will help to select the appropriate materials for your application.

Consideration will be given to weight, strength, durability, material performance and manufacturing requirements. We will discuss these options with you so that we can arrive at the best solution for the project.

Our expertise spans composites, high-strength metals, cores, adhesives, standard aluminium, steel fabrications as well as biobased materials, including a "Bio" composite pre-impregnated system.





GREEN MATERIALS

As well as reducing weight and energy consumption within the Industrial sector, we have moved towards materials that are sustainable and environmentally friendly.

Part of our R&D programme is to source new materials that meet this requirement. One such discovery is EvoPreg – a revolutionary "Bio" composite pre-impregnated system that combines high strength fabrics with a biobased resin system. This resin system used is extracted from the natural waste bi-product, obtained from the manufacture of sugar, which is non-toxic and does not use volatile organic solvents. It can produce an extremely light and hard wearing composite assembly combined with exceptional fire resistance.