



World class innovative
composite solutions



TCS was founded in 2017 and partnered with GRP Solutions Ltd. in January of 2018 where we found shared values, a “people” culture and a strategic drive to service the whole composite sector. Partnering with a number of major principals specialising in Prepregs, Woven Fibres, Advanced Resin Systems and Structural Adhesives we service wide ranging markets from Automotive, Aerospace, Tooling and Industrial sectors in regions from the UK through the Americas and globally where the market or supply chain dictates.

We see material supply as a part of what we do but it does not define our business. We are a solutions based business with over 100 years expertise in the global market. Our structure and strategy allows us to be reactive to challenge, fast to respond, and along with our Manufacturing partner's flexibility in operations, bespoke material solutions are formulated and implemented efficiently, ensuring our clients realise their goals and launch their developments in much shorter timelines with less complexity.

Our mission at TCS is to work to provide real value to both our partners and clients always focusing on the full solution. Our partners see us as an extension of their businesses and our clients as the “go to” position to meet their business needs. We see our customers challenges as our greatest opportunities.

*“The closer we are to our partners and clients
the higher our performance becomes”*

Andy Pointon
Managing Director, Total Composite Solutions

Capabilities

“From conceptual idea to market realisation”

At TCS we utilise over 100 years direct global market experience and knowledge from within the Composite market including technologies of SMC/BMC, Advanced resin chemistry, reinforcement and weaving to Prepregs and Adhesives, to support our clients in bringing their projects to life, often working from initial idea through to defined manufacturing positions.

SUPPORTING AND PROVIDING SERVICE IN:

- Design and engineering.
- Purchasing and supply chain.
- Material development and selection.
- Material supply and technical service.
- Prototyping and testing.
- Manufacturing selection.

“Working together for a better solution”





Automotive

Environmental need driving global legislation change, along with a desire for greater design flexibility, continue to facilitate a double digit growth for composites within the global Automotive sector.

Stronger, lighter materials and faster production methods stretch the reach of the material toward more main stream production, a position historically limited to only the specialist vehicle sector.

Technical demands on the material selection continue to increase and create the necessity for more advanced resin systems, alternative reinforcement and processing.

TCS and its partners have and continue to focus on these challenges ensuring research and development for the sector is central to our strategy. New resin systems featuring greatly improved material handling safety, and higher material application properties, are some of the areas where our material and service proposition add value to our clients.

Our wide ranging bespoke weaving capability and fast efficient supply chain gives OEM's and designers new exciting product propositions to exceed their clients expectations.

MARKET PRODUCTS INCLUDING:

- Market leading ultra clear, high TG, cosmetic prepreg systems.
- Toughened structural prepreg systems.
- Multi chemistry structural adhesives.
- Fast Cure VE advanced resin formulations.
- Bespoke weaving designs in exotic fibres and metals with matched resins systems.

"Developing smarter solutions to a changing market"



Aerospace

The global Aerospace market remains the largest consumer of global advanced composite volumes and continues to demonstrate high CAGR across all applications.

Materials from primary structures, secondary structures through to interior applications call for wide ranging properties, as well as technical and chemical solutions.

Within the interior sector, traditionally and to the current time, materials based on Phenolic

chemistry have been the products of choice, offering the performance to meet stringent fire resistant specification and low smoke emissions. The driver to remove Phenolic, as a more hazardous material from the sector creates both opportunity along with a substantial technical challenge.



TCS and our partners have developed some unique material and process solutions to meet and exceed the challenges faced by the sector, offering an alternative chemistry for interior aerospace applications.

With a newly formulated and patented development, the team at TCS work with both OEM and Tier 1 suppliers to close the gap between material and the market need.

*“New advanced technology
exceeding the market expectations”*



Wider Market Applications

At TCS we work alongside many other industrial sectors where our product portfolios and solutions-based strategy add value to the market and product. Wide ranging advanced materials are gaining traction in current and developing markets taking alternative technical solutions to build product performance to new levels. Using our material knowledge and experience gained from the industry and more established sectors, we support our clients in their development and product improvement plans.



MARKET AND SECTOR APPLICATIONS INCLUDE:

- Tooling manufacture.
- Medical device and prosthetics.
- Renewable energy.
- Marine, structural and decorative design.
- Satellite and space.
- Defence and ballistics.
- Sports and leisure.
- Rail.

*"Supporting the growth of advanced materials
into current and emerging applications"*



Structural Adhesives

With the addition of structural and engineering adhesives, TCS offers high quality adhesives and bonding solutions to complement its current product offerings, further enhancing the total solutions position, supported by extensive in-house adhesives knowledge and expertise.

TCS structural and engineering adhesives portfolio utilises a wide range of resin chemistry in order to provide end users with the best possible product for each individual application.

Fully compatible with modern manufacturing processes and capable of providing even greater flexibility in component design, our adhesive

solutions potentially reduce weight and increase production throughput.

Suitable for bonding the vast majority of composite materials, metals and plastics, the TCS structural adhesives range will ensure durable bonds, offering multiple options for designers, engineers and production managers.

KEY BENEFITS OF STRUCTURAL ADHESIVES:

- Strong with excellent fatigue resistance.
- Working and cure speeds to fit many manufacturing processes.
- Resistant to water and many common chemicals.
- Good elongation, reducing stress on parts.
- Gap filling capabilities.
- Minimal surface preparation required on most composites.
- Excellent for bonding dissimilar substrates.
- Multiple open/working times to suit multiple applications.
- Range of testing capabilities, both in-house and external.
- Impact resistant.

“TCS - the solution to all your advanced composite bonding needs”



www.totalcompositesolutions.com
e: sales@totalcompositesolutions.com t: office +44 (0) 2392 459513
Total Composite Solutions, Unit 6 Kenwood Business Park, New Lane, Havant,
Hampshire, PO9 2NT, United Kingdom