



## DELIVERING THE FUTURE OF COMPOSITE SOLUTIONS

# INDUSTRIAL

The benefits of advanced composite materials are being seen and understood by an ever increasing number of industry sectors. Sectors that have traditionally used steel or aluminium structures are turning to composites for the competitive advantage they offer. No longer solely the realm of aerospace, defence and high performance yachting applications, advanced composites are finding their way into building façades, milking platforms, surfboards, truck cabs, robotic arms and pipes, and others.

The depth of expertise and experience in demanding sectors makes Gurit the ideal partner for any general industrial project considering composite construction. With an end-to-end solution, offering composite structural design, tooling fabrication, materials supply and prototyping services, customers can be confident of a well considered and technically sound solution to meet performance, budget and timescale requirements.

Gurit helps customers to realise the benefits of composites in an economically challenging and globally competitive world:

- Lower weight – reduced structural weight, easier handling, easier assembly and higher productivity
- Optimisation of mechanical properties – tailored solution to meet exacting requirements
- High fatigue life – durability, reduced replacement costs
- Corrosion resistance – long service life, minimum maintenance requirements
- Ease of moulding – freedom of design

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## OPENING UP NEW POSSIBILITIES IN THE DESIGN & CONSTRUCTION OF INDUSTRIAL COMPONENTS

Gurit has established itself as one of the leading global manufacturers and suppliers of composite materials and technology. Over 30 years' experience in the practical application of composites across various market sectors, combined with an impressive portfolio of materials and a unique technical approach, enables Gurit to offer the most complete composite solution on the market.



Gurit's composite materials are designed for a broad spectrum of general industrial applications and processing technologies. Core materials, prepregs, fabric reinforcements, epoxy laminating systems and adhesives, tooling products, as well as vacuum consumables and ancillary items, are available for use in wet lay-up, infusion and prepreg construction. In addition, Gurit offers a range of services to complement the materials, ensuring the customer maximises the benefits of composites with confidence: structural engineering design, mechanical testing, materials kitting, flat panel manufacture, tooling fabrication and prototyping.

With offices across Europe, the Middle East, India, China, New Zealand, Australia and North and South America, and supported by a network of authorised distributors, Gurit supplies its products and services to composite fabricators around the world.

The opportunities for using composites are everywhere. Due to their versatility and significant advantages over other construction materials, they can be successfully applied in almost every situation. As well as those industry sectors detailed below, others successfully using composites include: mining, industrial machinery, ballistics and defence, and consumer electronics.

### ARCHITECTURE

Gurit has worked on some of the most ambitious and challenging architectural projects, where composites were the only viable solution for the design. Architects have true freedom of design due to the material's lower weight and formability to create complex shapes. In addition, composite components are a practical

option due to ease of installation, durability, and their lower maintenance requirements compared with alternative materials.

### INFRASTRUCTURE

Since the 1990s, Gurit has been supplying composite solutions to infrastructure projects: complete composite footbridges and fibre reinforced plastic fairings for suspension bridges, to overbridge protection screens and underground ventilation pipes. A thorough understanding of the behaviour of composite materials, along with an ever expanding range of fire retardant products, allows Gurit to assist with the development of new infrastructure initiatives, or extend the life of current structures through repair and reinforcement solutions.

### AGRICULTURE

Lower weight, reduced corrosion, ease of on-site repair, as well as impressive strength and stiffness properties are all reasons that manufacturers of agricultural machinery are turning to composites and Gurit. Manufacturers and their customers are now able to reduce running costs, achieve higher throughput, and rely on improved lifespan of the equipment, with no compromise on quality.

### MEDICAL

MRI tables, chemotherapy positioning devices, artificial limbs, back boards/stretchers... the applications for composites within the medical field are almost limitless. This sector favours composites due to their low weight, high strength and durability, plus ease of moulding. Gurit's comprehensive product range means that a customised solution can be found for every project, no matter how demanding or complex the requirements.

### SPORTS GOODS

Composite materials have a long history in the manufacture of golf shafts, skis, hockey sticks, fishing rods and bicycles. The low weight and stiffness properties of composites, especially carbon fibre, are a good match for the high performance requirements of this type of sports equipment. Additionally, Gurit epoxy resins and glass fabrics are used by surfboard and kayak manufacturers, recognised for their improved performance over 'traditional' options.