



## DELIVERING THE FUTURE OF COMPOSITE SOLUTIONS

# AEROSPACE

Durability and low weight are of significant importance to aircraft and aerospace manufacturers, so advanced composites are high up the list when it comes to selecting construction materials. This demanding industry was one of the first to use composite materials for an ever increasing range of applications, and remains at the technological forefront of composite development.

One of Gurit's primary products for this sector is prepreg, which is an engineered material combining fibres and resin matrices in an easy-to-apply form. These aerospace-qualified materials are highly suitable for many interior and structural applications, demonstrating a unique combination of properties combining excellent mechanical

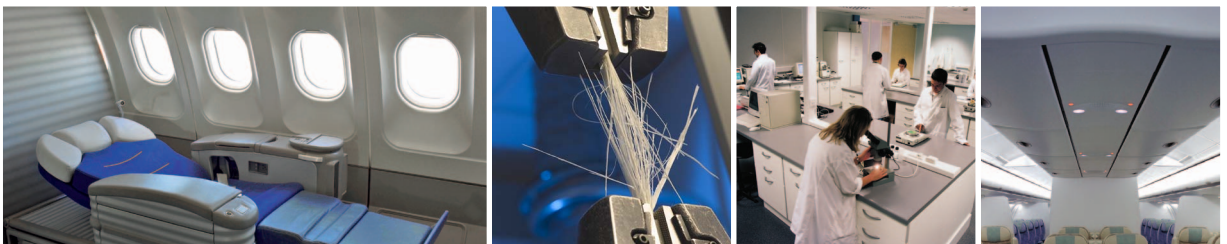
performance and the fulfilment of the highest international JAR/FAR fire protection regulations regarding fire, smoke, toxicity (FST) and heat release.

With its worldwide network of sales teams and two dedicated aerospace material production sites, Gurit is well positioned to serve a truly global customer base in the aircraft and space industry.



**The aircraft industry remains at the forefront of the adoption of composite solutions for an increasing range of components. With over 30 years experience, Gurit understands the needs of the global aerospace industry. With two ISO 9001 and EN 9100 certified production sites in Switzerland and Germany, dedicated to the manufacture of aerospace materials in Switzerland and Germany, Gurit holds a leading position as a materials supplier to the European aircraft and space industry and is expanding its presence to other global aerospace customers.**

Gurit materials are qualified and used at various levels within the aerospace sector: from large structural components in Airbus and Boeing models, to interior and flooring parts for smaller regional and non-commercial aircraft, to space launch vehicles and helicopters. In addition, Gurit's high performing composite solutions are used in the manufacture of the large payload fairings for the European Ariane 5, the Lockheed Martin Atlas v-500 rockets and the European launcher Vega - the payload fairings shelter the satellites before and during launch, and from thermal, aerodynamic and acoustic effects on the flight through the atmosphere.



## FULFILLING THE TOUGHEST REQUIREMENTS

Gurit has developed a broad range of strong, light and fire-retardant aerospace materials which are ideally suited for interior or exterior components such as passenger and cargo floor panels, cabin linings, ceiling panels, air ducts, plenums, overhead compartments, lavatories, galleys, bars, wardrobes, partitions, seats, flap track and belly fairings, winglets and fins, landing gear doors, trailing edges and brackets. Gurit's materials fully comply with the requirements of the U.S. Federal Aviation Administration's Regulations (FAR) and other international fire protection regulations regarding fire, smoke, toxicity (FST) and heat release. Exceeding existing physical requirements and achieving lower overall cost, Gurit has recently introduced a series of lower cost material solutions based on changes in applied raw materials. These new material concepts will allow customers to increase their profitability.

## CUSTOMISED PRODUCTS

Gurit's expertise in the manufacturing of composite materials enables products to be tailored to customers' requirements. Gurit's engineered prepregs are composed of

innovative resin matrices based on phenolic, epoxy, cyanate ester and benzoxazine resins reinforced with glass, carbon, and aramid fibre fabrics, rovings, multiaxial complexes or hybrids. Honeycomb or crushed core panels are supported by inserts created from Gurit's specialist laminates, and adhesive films enhance prepreg adhesion to core materials. Gurit's key aerospace products include:

- PB 1000: this "eco"-alternative for interiors complies with the latest FST requirements and combines an outstanding surface quality, with near-zero warpage, improved mechanical properties and short curing cycle
- EP 137: the low smoke density epoxy system combines highest mechanical performance with improved FST properties
- EP 121: Epoxy systems curable in combination with phenolic systems
- PF 811: Low volatile content phenolic system for fast curing processes with excellent surface quality
- PN 900: Cyanate ester system with epoxy-like surface, fire retardancy at phenolic level and high-temperature resistance
- PN 901: Cyanate ester system with extreme temperature resistance, outstanding surface quality, strong FST performances
- EH 420C: Fast curing epoxy system with very short curing cycle and excellent surface quality
- EH 250: Toughened epoxy system for highest impact resistance
- EP 500; Tooling system for improved life cycle, perfect surface quality and easy manufacturing of your tools