SOVOLTA Aviation & Transportation has been specialising in the manufacture of materials for the interiors of passenger aircraft cabins and cargo applications for more than twenty years. We have an international reputation as supplier to the aircraft, railway and other transportation industries. Our wide range of products also meets the very highest standards of mechanical, thermal and chemical strength. From prepregs and technical laminates, through machined parts to decorative laminates, we offer our customers a unique combination of decorative and technical products – a one stop source for transportation interiors.
The secret of safety and wellbeing

Whether on land, water or in the air, travelling today is not nearly as hazardous as it was 100 years ago. Since then comfort, design and safety have improved tremendously and have even become the decisive factor in the choice of supplier. An attractive, distinctively designed ambiance is an important consideration, particularly in passenger transportation. Passengers should be able to look back with pleasure to their time en route and retain a positive memory of their journey on board.

However, behind all the show there is more than one might think at first sight. Decorative laminates are far more than colourful wallpaper for passenger aircraft cabins. Decorative sheets are technically demanding products which have to meet high safety, manufacture and design specifications, whether international flammability requirements e.g. FAR 25.853, or aircraft manufacturers’ specifications for example, whether individual design specifications or our customers’ manufacturing processes. Decorative sheets must always offer maximum performance in every field.

Having set up our own design department and by liaising closely with our customers’ own designers we are able to customise our decorative laminate designs according to individual wishes, and even produce special customer-specific designs.

Our production processes on modern impregnating systems are optimally adapted to the special processing technologies of our customers – high pressure laminating presses, autoclaves, vacuum bag, crushed core. Moreover, beside the excellent quality control, well equipped physical and chemical laboratories enable rapid and targeted product development in accordance with customers’ wishes. We test our products in our own fire test laboratory to ensure that the strict flammability, smoke emission and toxicity (FST) and heat release guidelines are upheld.

TECHNICAL LAMINATE AND PREPREGS COMPETENCIES

- Resin systems
  - Resin development in own laboratory with research centre
  - Production in own resin factory
  - Design and development of individual optimally coordinated resin systems

- Processes
  - Impregnation on state of the art horizontal and vertical impregnating systems
  - Machining (cut to size)
  - Pressing in many different press formats

DECORATIVE LAMINATE COMPETENCIES

- Innovation
  - Design and development of modern embossings and modern chemical systems
  - Research into new pigments
  - Customer Engineering & Design

- Processes
  - Flatbed screen printing
  - Rotation screen printing
  - Digital printing
Decorative Laminates for demanding applications to sidewall panels, ceilings and cabin facing walls (e.g. partition panels) or heavily used surfaces such as galleys and lavatories as well as trolleys and storage cupboards.

SOVOLTA Aviation & Transportation is the only supplier globally that manufactures prepregs as well as technical and decorative laminates for the transportation market. Thanks to an integrated coordination production system our customers no longer have to choose between technology and design. Our portfolio includes decorative laminate sheets, technical laminates, thermoplastics, prepregs and NTF, and moreover such services as design support, testing in the fire test laboratory, application training, ADG service, logistical support and a customer store.

SYMBOISOS OF TECHNOLOGY AND DESIGN
A lightweight, medium weight or heavy weight, integrally laminated decorative laminate which meets the most stringent flammability, heat release rate, and smoke emission requirements for aircraft interiors. It is available either in a continuous roll format or sheet format and gas emission requirements for aircraft interiors. It is dimensionally stable and extremely durable. It is a coloured glass fibre reinforced decorative laminate, designed for use on trolleys. It meets the latest and most stringent flammability and smoke and toxic gas emission requirements for transportation requirements for highly demanding constructions. In high humidity applications or even after immersion in water AIRVOL T® LAMINATES are high performance composites based on a low heat release phenolic resin system for aircraft interiors, meets FST requirements in accordance with FAR 25.853 and FAR 25.855.

For more detailed information on material characteristics, e.g. FST properties, dimensions, fabrics, resins, curing cycles and storage conditions please either refer to the respective technical data sheet or contact our Sales department or visit www.isovolta.com.
The highly specialised teams at our Technology Centre work in close collaboration with international experts, organisations, research laboratories and manufacturers in the railway, air and other transportation industries. We can therefore assure our customers that our products already meet tomorrow’s requirements.

Our in-house teams from Research & Development, process technology and the testing laboratories also work closely together. This is how our engineers develop new processes, modern embossing and pigments, test new surfaces and research modern chemical systems in order to adapt the properties of decorative sheets to constantly changing requirements. The expertise and experience of our fire test laboratory which is capable of carrying out all the flammability tests in accordance with FAR 25.853 (Smoke Chamber, OSU Heat Release Chamber, Vertical & Horizontal Burn, Toxicity) and our testing laboratories, which are fitted with the latest equipment for mechanical testing, round off the research and development projects of the R&D and processing department.

Using our own application machine we are also able to simulate almost all our customers’ manufacturing processes and to incorporate them in our developments from the start. As a special service we also offer application training which assists our customers to design the processing process more efficiently.

A distinctive feature of ISOVOLTA Aviation & Transportation is all-round competence in the preparation and implementation of new design ideas. To advise our customers we have an entire team of specialists in various fields, such as design, graphics, colour design and surface engineering. Design studios and airlines around the globe value this unique service.

In addition we offer our customers:
- ADC Service
- Refrigerated warehouse and customer store
- Logistical support