SAERTEX® is the global market leader in the manufacture of multiaxial reinforcements, called non-crimp fabrics, and core materials for the production of fiber-reinforced composites. In boatbuilding applications, SAERTEX® products help to increase the performance of sailing yachts, motor boats and sightseeing vessels. By using our fiber-reinforced composite materials, steel and aluminum can be replaced to achieve significant weight reduction, energy savings, enhanced stiffness and corrosion resistance.

Our materials are used in the hull and deck planking, superstructures and interior moldings. For such applications, SAERTEX® supplies complete material solutions for the sandwich construction system in the area of composites and delivers proven solutions for closed processes such as RTM. Our SAERcore® special functional fabric with integrated flow enhancer is suitable for the rapid production of straightforward superstructures. When draping the fabric over vertical areas and large curved structures – for instance the hull – many of our customers favor the patented, self-adhesive SAERfix® fabric, which makes this work easier. In addition to multiaxial fabrics made of glass fibers, the patented structural core material SAERfoam® is an excellent replacement for balsa wood components and PVC/PET foams.
The adhesives in the SAERfix® product group simply make the positioning of non-crimp fabrics easier. NCFs finished with SAERfix are self-adhesive, eliminating the use of additional spray adhesives.

Advantages of NCF compared to woven textiles:
- Stretched fibers for optimum mechanical strength and reduced weight at the same time
- Cost savings due to fewer layers
- Individual drapability and outstanding permeability
- CSM (Chopped Strand Mat) available to enhance thickness and reduce print-through

The adhesives in the SAERfix® product group make the positioning of non-crimp fabrics easier. NCFs finished with SAERfix® EP or SAERfix® UP are self-adhesive, eliminating the use of additional spray adhesives.

Advantages of SAERfix® compared to spray adhesive:
- Automatic spread of adhesive affects the homogeneous surface, the result is better resin flow and better laminate quality
- Time efficient: draping the fabric into the mold goes faster, No need to apply additional spray adhesive. Less time = less expense
- Environmentally safe and harmless for workers cause no VOC during draping

Advantages of SAERfix®:
- It is compatible with various resin types for maximum mechanical properties.
- SAERTEX® composite reinforcements made of glass, carbon and aramid fibers, also known as Non-Crimp Fabrics (NCFs). Depending on the fiber type, surface weight and angle combination, various mechanical characteristics can be achieved. SAERTEX® multiaxials are individually configured for our customers and optimally adapted to a range of processes. SAERTEX® NCFs are compatible with various resin systems such as Polyester, Vinylester, Epoxy or Polyurethan.

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SAERTEX® provides comprehensive customer service from design through project completion. We also offer engineering support if necessary.

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Our experts will support you in the choice of material and the development of the NCF. Depending on the fiber type, surface weight and angle combination, various mechanical characteristics can be achieved. The resulting composite material is, therefore, customized to meet your specifications.

GL-CERTIFIED TESTING LABORATORY

The SAERTEX® testing laboratory for non-metallic materials has been certified by Germanischer Lloyd (GL) since 2013. Employees, facilities and procedures have been approved to GL standards for testing fiber-reinforced plastics.

INDIVIDUAL CUT-TO-MEASURE, NESTING SERVICE AND PACKAGING CONCEPTS

Using CAD drawings and your specifications, we can precisely pre-cut required shapes using our cutting machine, making them ready for the next step in your manufacturing process.

We will pack the cut pieces in the most efficient way that will improve your productivity. Your workshop is fully dedicated to composite parts production.
The adhesives in the SAERfix® product group simply make the positioning of non-crimp fabrics easier. NCFs finished with SAERfix® can be laid into the mold goes faster, which reduces deflection and allows thickness reduction. The result is better resin flow and better laminate quality. All products from the SAERTEX® product range can be individually optimised.

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SAERFlow® is used as an internal flow media. It combines a glass reinforcement and a lightweight synthetic structure. Together, they provide unparalleled layers with excellent resin flow and high draping properties. This product is ideal for transitioning from HLU to infusion process.

SAERCore® is the ideal solution when resin injection has to be done particularly quickly. This product consists of one or two layers of chopped strand mat (CSM) and a core of PP (vinyl ester foam). Initially the resin flows horizontally into the core material and then impregnates the outer reinforcements through vertical injection, which saves a significant amount of time.

- CSM for good surface quality and to avoid print through
- Good resin flow due to PP core and good mechanical properties due to the NCF

SAERfix® EP/UP adhesive:
- Automatic spread of adhesive affects the homogenous surface, the result is better resin flow and better laminate quality
- Time efficient, laying the fabric into the mold goes faster, No need to add any additional spray adhesive. Less time is less expensive
- Environmentally safe and harmless for workers cause no VOC during draping

Advantages of SAERfix® compared to spray adhesive:
- Stronger than PET
- Cost efficient compared to PVC
- Lighter than balsa

SAERfoam® panels are more flexible before being impregnated with resin, they can pass large curved designs without jeopardising the core. After being cut to specification, the parts are put in a box in the required lay-up sequence. All products from the SAERTEX® product range can be delivered as KITS.

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SAERTEX® KITS deliver ready-to-use, custom-cut solutions. A KIT consists of pre-cut parts based on the customer’s requirements. All products from the SAERTEX® product range can be delivered as KITS.

Multiaxial fabrics made of glass, carbon and aramid

SAERcore® MAX
CLOSED MOLD REINFORCEMENTS

SAERfoam® is a lightweight structural core material with 3D glass bridges. It replaces conventional core materials such as PVC, PET and balsa. SAERfoam® can be draped while its original flow and mechanical properties are kept intact. Typically only one layer required even in sandwich structures.

SAERfix® EP/UP
ADHESIVES

SAERFlow®
STRUCTURAL FLOW MEDIA

SAERfoam®
STRUCTURAL CORE MATERIAL WITH 3D GLASS BRIDGES

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iXblue Shipyard is one of the few shipyards in the world to master the infusion of large dimension composite parts. They develop and build efficient, economical and eco-friendly workboats, vessels and drones. The DRASSM (Department Research Archeologic Subaquatic and Submarine) is already using 14 meters and 36 meters iXblue composite vessels made of SAERTEX® non-crimp fabrics. In 2015, they started working in partnership with iXblue and the architect MAURIC on a bigger vessel to reinforce its fleet. The project is named NESSIE, and it will be a scientific boat, innovative and multi functional. At 46 meters long and more than 10 meters wide, NESSIE will become the biggest working boat ever produced in the world with composites material.

On this project, the iXblue engineers and the SAERTEX® team tested and studied the potential use of SAERfix®. Glue sprays have been used for years to place fabrics into molds, especially on vertical areas. This process takes significant time and work and ultimately results in higher processing costs. Using SAERfix®, it became immediately clear that self-adhesive glass fabrics could completely eliminate the glue spraying process. The final results speak for themselves: time and cost savings of about 10%, perfect fiber wet out during infusion, and, consequently, a higher laminate quality.

HACO Shipyard is located in Tunisia and is part of the French company CATANA Group, the world’s third-largest manufacturer of catamarans. SAERTEX® partnered with HACO to develop a new catamaran with an entire deck produced in RTM method. The major challenge was to produce one full catamaran every two days. SAERTEX® specialists had to find a way to produce an entire 12 meters x 6 meters deck in one piece using the RTM process, which would save an extensive amount of time. A full technical evaluation was carried out to find the best solution. We chose SAERcore® MAX because of its resin flow speed. In combination with SAERfix®, the mold filling time was also drastically reduced and SAERfoam® was chosen because it is much stronger than PVC. In addition, SAERTEX® developed a project-specific SAERcore® MAX and SAERfoam® kits to substantially reduce the amount of time HACO Shipyard spent for cutting and draping.
GET IN CONTACT WITH US

GLOBAL AVAILABILITY

Being close to our customers is important to us. We want to be right there – on-site – for our partners when they need us. That’s why we are represented by 15 production sites in 10 countries on 5 continents with engineering and production facilities and also offer a service network in more than 50 countries around the world.

CONSERVING RESOURCES WITH AND AT SAERTEX

One of the key success factors in sustainable engineering is achieving minimizing weight while simultaneously maximizing component quality. Both are possible using lightweight construction methods facilitated by SAERTEX® products. Conventional materials such as steel, aluminium, concrete and wood are being replaced by our cutting-edge composite materials made of glass, carbon and aramid fibers, which results in a significant reduction in the consumption of fossil fuels. Environmental impact is thereby reduced through the consequential reduction in emissions.

“Innovation for a resource-saving future” is the SAERTEX® vision. Sustainable business management is the cornerstone of long-term economic success and our products contribute significantly to this. As a company we are also continuously working on the sustainable optimization of our processes and products.

www.saertex.com