

MULTIAXIAL FABRICS MADE OF GLASS, CARBON AND ARAMID

Innovative and tailor-made: **SAERTEX** fabrics made of glass fibre, carbon and aramid, also known as NCFs (non-crimp fabrics), with more than 2,500 article designs. Depending on the fibre type, surface weight and angle combination, various mechanical characteristics can be achieved. **SAERTEX** products are individually configured for our customers and optimally adapted to a range of processes: infusion, RTM, pultrusion, prepreg, compression, etc.

1 Fibre, weight and orientation are ideally adjusted

The positions are specifically aligned to the ideal quantity and orientation in the loading direction // Angles of between -22.5° and $+22.5^\circ$ are possible // 0° position is also possible.

2 Stretched fibres for optimum mechanical strength

Absorption of the highest possible loads through stretched fibres // Reduced component weight while maintaining equal mechanical properties or even a higher component load with the same component weight.

3 Individual drapability and outstanding permeability

The drapability of the SAERTEX fabric is tailored to customer requirements and exhibits outstanding permeability // Optimisation and enhancement of the **SAERTEX** fabrics for infusion processes.

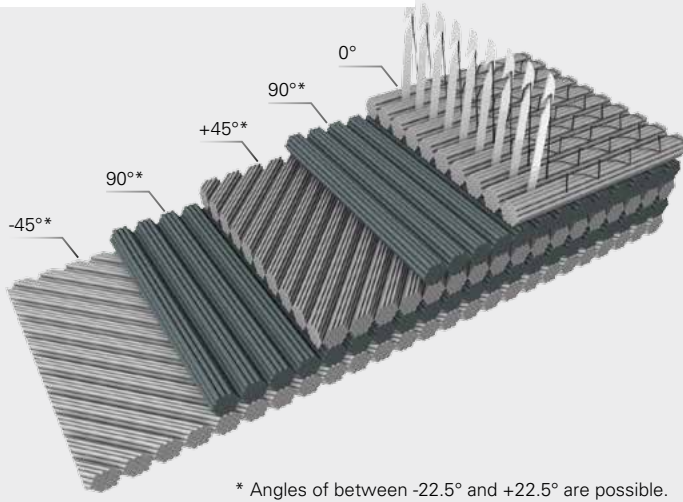
4 Cost savings due to fewer layers

Reduction of the manufacturing costs (fewer layers are required thanks to the higher area weight of the individual layers).

5 Resin compatibility

SAERTEX-fabrics are optionally compatible with various resin systems: EP / UP / VE / PUR / PP / PA and caprolactam.

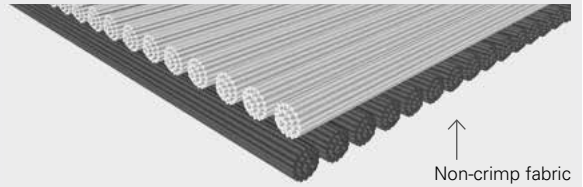
Structure of the SAERTEX NCF system



* Angles of between -22.5° and +22.5° are possible.

Comparison between NCF and woven textile

Non-crimp Fabric



↑ Non-crimp fabric

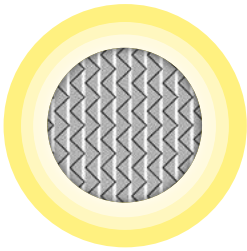
Woven textiles



↑ Crimped fibres

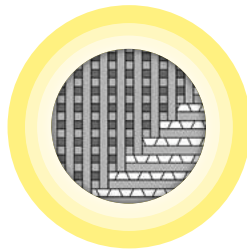
BASIC CONSTRUCTIONS

UNIDIRECTIONAL FABRICS



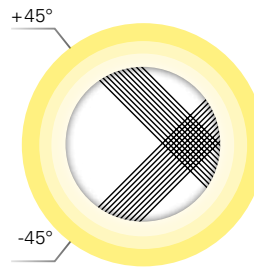
Construction:
0° or 90°

BIDIRECTIONAL FABRICS



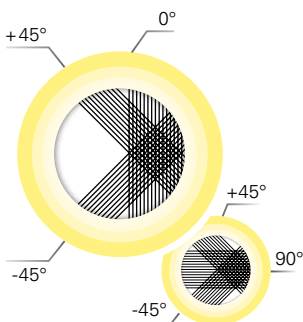
Construction:
90° / 0°

BIAXIAL FABRICS



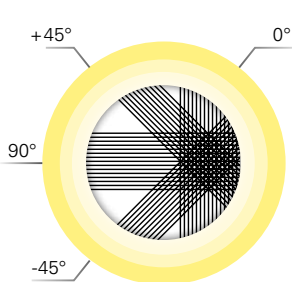
Construction:
±45°

TRIAxIAL FABRICS



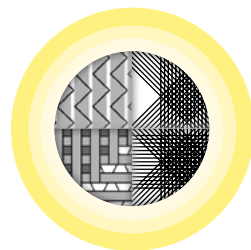
Construction:
±45°/0° or 90°/±45°

QUADRAXIAL FABRICS



Construction:
±45°/90°/0°

TAILOR-MADE FABRICS



Construction:
individually available on request

Facts & figures

Suitable methods:

Infusion, RTM, compression, winding, SMC, T-RTM, pultrusion, prepreg, hand laminating, etc.

Reinforcement materials:

Glass, carbon or aramid fibres, special fibres, hybrid fabrics

Max. width:

3810 mm, individual tapes on request

Resin compatibility:

Epoxy resins // Unsaturated polyester resin // Vinyl ester resin // Polyurethane // Polypropylene // Polyamide and caprolactam, etc.

Certificates:

Type approval DNV GL

Max. surface weight:

4000 g/m²



More information about our standard fabrics can be found at www.saertex.com/downloads

SAERTEX®: Registered trademark (more information at www.saertex.com)

REINFORCING YOUR IDEAS