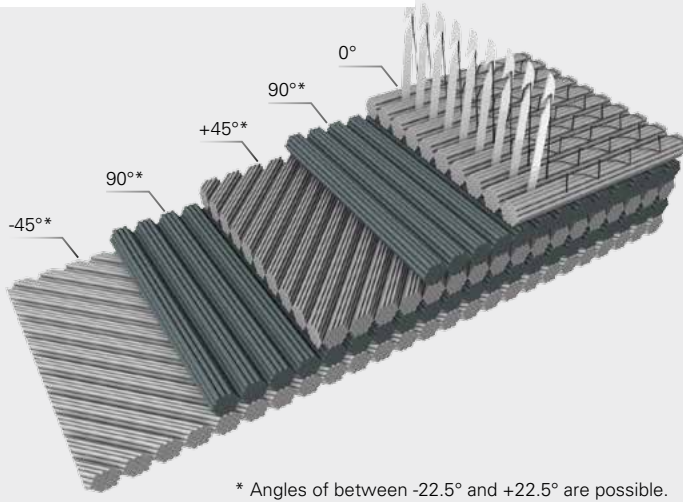


# MULTIAXIAL FABRICS MADE OF GLASS, CARBON AND ARAMID

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.

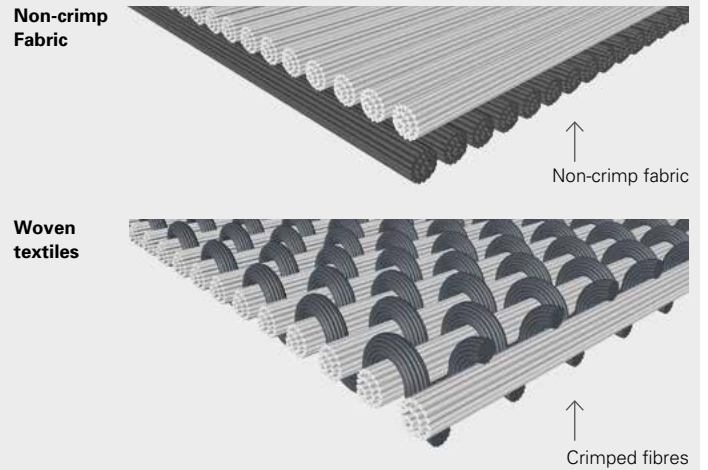
- 1 Fibre, weight and orientation are ideally adjusted**  
The positions are specifically aligned to the ideal quantity and orientation in the loading direction // Angles of between  $-22.5^\circ$  and  $+22.5^\circ$  are possible //  $0^\circ$  position is also possible.
- 2 Stretched fibres for optimum 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



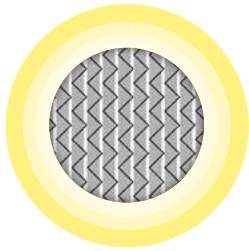
\* Angles of between -22.5° and +22.5° are possible.

### Comparison between NCF and woven textile



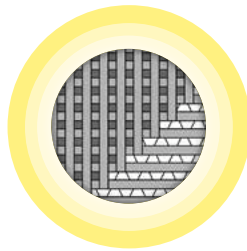
## BASIC CONSTRUCTIONS

#### UNIDIRECTIONAL FABRICS



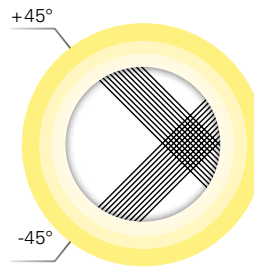
**Construction:**  
0° or 90°

#### BIDIRECTIONAL FABRICS



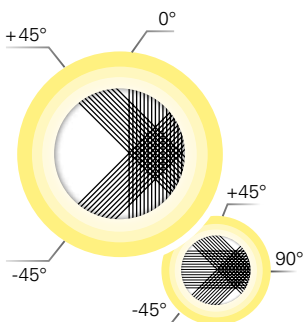
**Construction:**  
90° / 0°

#### BIAXIAL FABRICS



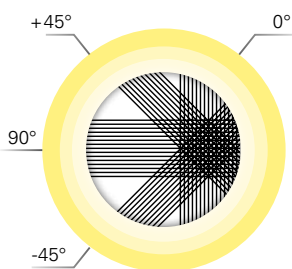
**Construction:**  
±45°

#### TRIAxIAL FABRICS



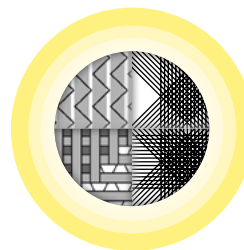
**Construction:**  
±45°/0° or 90°/±45°

#### 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/m<sup>2</sup>



More information about our standard fabrics can be found at [www.saertex.com/downloads](http://www.saertex.com/downloads)

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REINFORCING YOUR IDEAS