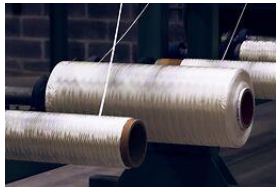
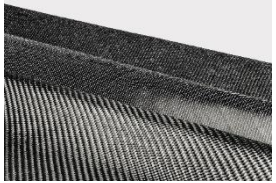
sgl carbon

Composite Materials

Product Portfolio

From carbon fibers to composite materials and components

Precursor	Carbon Fibers	Composite Materials	Composite Components
			
External supply	Continuous tow as well as fiber intermediates (milled, chopped, etc.)	Prepregs, woven fabrics, non-crimp fabrics & Stacks	Friction material solutions, automotive applications, marine technology, aerospace components

- A **wide range of processing technologies**, as well as comprehensive expertise in production, materials, and applications

DC1 - Non-Public or Internal

We contribute to the mega trends of today

SGL Carbon provides advanced **reinforcement materials for the marine industry**, supporting lightweight, durable and high-performance composite solutions.

Our portfolio includes **carbon, glass and natural fiber textiles**, available as NCFs, woven and non-woven materials, both dry and impregnated as prepregs, for a wide range of marine applications.







DC1 - Non-Public or Internal

SIGRATEX® textile materials

High-quality textiles

We offer a comprehensive portfolio of high-quality textile materials based on carbon and glass fibers:

- Non-crimp fabrics
- Woven fabrics
  - ✓ Narrow tapes
- Individual stacks based on multi-material layers of textile fabrics
  - ✓ FixedTow for local reinforcement

All fabrics can be individually be customized to meet defined specifications.








DC1 - Non-Public or Internal

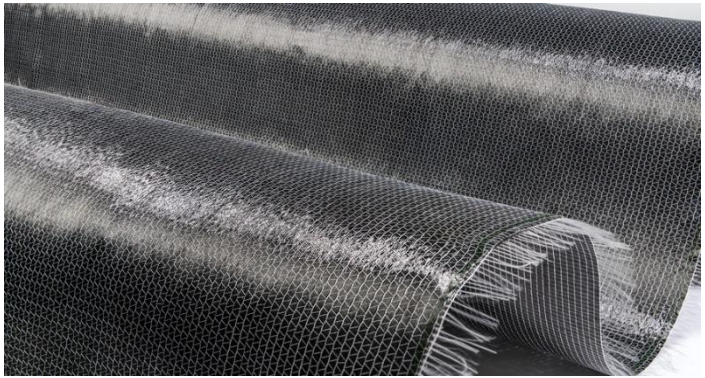
SIGRATEX® non-crimp fabrics

We offer SIGRATEX® non-crimp fabrics from our SIGRAFIL® 50k continuous carbon fiber tow or from glass, flax or basalt fibers. The fibers are stretched out straight to offer the optimum mechanical properties.

- Unidirectional non-crimp fabrics
- Biaxial non-crimp fabrics
- Multiaxial non-crimp fabrics (Triaxial, Quadriaxial)

Customer benefits

- Choice of fiber type, areal weight and fiber orientation to suit the expected stresses
- Good drapability for easy adaption to different shapes
- Excellent resin infiltration properties for rapid injection processes
- Consistently high quality supported by online monitoring
- Visual standard for aesthetic applications
- Secure supply chain through use of own SIGRAFIL® carbon fibers and complete traceability



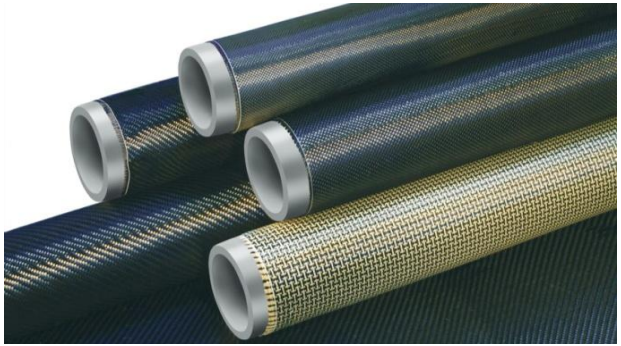


DC1 - Non-Public or Internal

Textile materials.
SIGRATEX® Woven fabrics

Properties

- Different weave styles (plain, twill, satin)
- Carbon, glass, aramid fibers and hybrids
- Different filament counts (1k, 3k, 6k, 12k or 24k)
- Good mechanical properties in 0°/90° direction
- Good handling
- Good impregnation behavior
- Tracer yarn available in different colors
- Fabric tapes with carbon, glass or polyester weft
- Standard width: 100/120 cm, Fabric tapes: up to 16,5 cm
- Fiber areal weight: 80 – 830 g/m^2



Benefits & Applications

- Structural Parts for small aircrafts and gliders
- Woven tapes for local reinforcement



DC1 - Non-Public or Internal

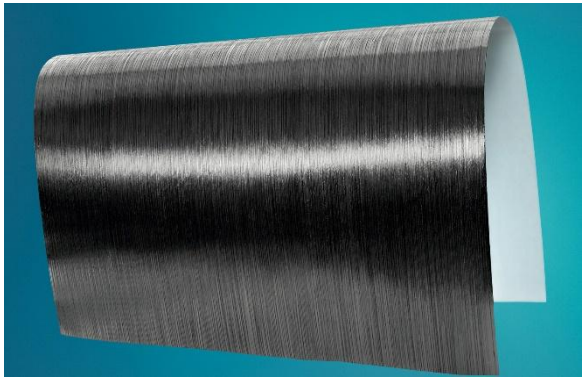
SIGRAPREG® Pre-Impregnated Products

High-quality prepregs

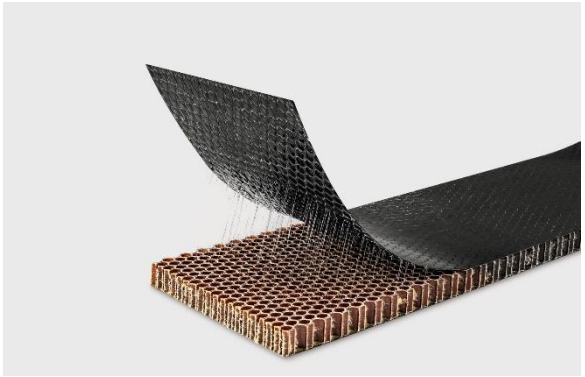
SGL Carbon supplies the whole range of textile reinforced materials produced from carbon, glass and aramid fibers:

- Unidirectional tapes
- Multiaxial fabrics
- Woven fabrics
- Non-crimp fabrics
- Non-woven structures
- Adhesive films
- Fiber areal weights: 25 - 665 g/m²
- Curing temperatures: 70 - 200 °C
- Epoxy and phenolic resin systems

All prepregs can be tailored to individual customer requirements







DC1 - Non-Public or Internal

Product Portfolio
Carbon Fibers & Materials

Textile Materials
SIGRATEX® The Drapables

Continuous Carbon Fibers
SIGRAFIL® The Enablers

Product finder Textile Materials
Digital pre-selecting tool

Pre-impregnated materials
SIGRAPREG® The Simplifiers

Short Carbon Fibers
SIGRAFIL® The Reinforcers

Oxidized PAN Fibers
PANOX® The Protectors

sgl carbon

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