

SGL Carbon expands material portfolio with new carbon fiber for high-strength pressure vessels

- High strength and high elongation characterize the new SIGRAFIL® 50k carbon fiber
- Unique broad portfolio of 50k carbon fibers from SGL Carbon

SGL Carbon will present a new 50k carbon fiber at JEC World 2023. The new SIGRAFIL® C T50-4.9/235 carbon fiber will match the high strength requirements for common pressure vessel designs and exhibits a high elongation capacity. It also enables further applications in market segments that require high strength and elongation.

Development work pays off - new level of strength achieved

SGL Carbon has many years of experience in carbon fiber production and produces its own precursor as well as its own carbon fibers in its European and North American value chain.

The SIGRAFIL® C T50-4.9/235 carbon fiber was developed based on the 50k fiber portfolio already in large-scale production, which is successfully used in the wind and automotive industries, among others. The new SIGRAFIL® C T50-4.9/235 achieves high levels of strength (4.9 GPa) and elongation (2.0%), now available in the 50k arena. Until now, these values could only be achieved with lower filament count fibers (e.g. 12k or 24k). This further complements SGL's broad product portfolio of 50k fibers. The typical advantages of SIGRAFIL 50k fiber types, such as increased process efficiency, higher material throughput, faster process times and less set-up effort, can now also be benefitted from these innovative applications.

"Carbon fiber-based solutions are a key driver for the transformation to sustainable mobility, for example in pressure vessels for future hydrogen mobility and fuel cells. After successful development work, we can now present a carbon fiber at JEC World 2023 that achieves a whole new level of elongation and strength. In addition, it offers the customer clear processing advantages. I am very proud of our team." said Roland Nowicki, Head of Business Unit Carbon Fibers at SGL Carbon.

Use in pressure vessels

With its innovative products, SGL Carbon supports the rapidly growing demand for climate-friendly mobility. Thanks to its special mechanical properties, the new carbon fiber SIGRAFIL® C T50-4.9/235 is ideally suited for winding pressure vessels which are needed for storing hydrogen in fuel cell vehicles. In the manufacture of pressure vessels, plastic containers are wrapped with carbon fibers impregnated in resin and then cured. Due to their low weight combined with high strength, SIGRAFIL carbon fibers enable weight advantages in tank design and can withstand very high pressures of up to 700 bar.

In addition to its use in pressure vessels, the new carbon fiber SIGRAFIL® C T50-4.9/235 also enables applications in market segments such as construction, infrastructure and sports that require high strength and fiber elongation.

The new SIGRAFIL® C T50-4.9/235 will be presented to the public for the first time at the JEC World trade fair in Paris from April 25-27, 2023.

About SGL Carbon

SGL Carbon is a technology-based company and a world leader in the development and production of carbon-based solutions. Its high-quality materials and products made from specialty graphite, carbon fibers and composites serve many industries that are shaping the trends of the future: climate friendly mobility, aerospace, solar and wind energy, semiconductors, and LEDs as well as the production of lithium-ion batteries, fuel cell and other energy storage systems. In addition, SGL Carbon develops solutions for chemical and industrial applications. Further developments in these areas demand more intelligent, more efficient, networked and sustainable solutions. This is where the entrepreneurial vision of SGL Carbon evolves around: contributing to a smarter world.

In 2022, SGL Carbon SE generated sales of around 1.1 billion euros. The company has approx. 4,750 employees at 30 locations in Europe, North America, and Asia.

Further information on SGL Carbon can be found at www.sgllcarbon.com/press.

Important note:

To the extent that our press release contains forward-looking statements, the latter are based on information that is available at present and on our current forecasts and assumptions. Forward-looking statements, by their very nature, entail known as well as unknown risks and uncertainties that may lead to actual developments and events differing substantially from the forward-looking assessments.

Forward-looking statements must not be understood to be guarantees. Instead, future developments and events depend on a large number of factors; they comprise various risks and imponderables and are based on assumptions that may possibly turn out not to be appropriate. These include unforeseeable changes to fundamental political, economic, legal and societal conditions, particularly in the context of our main customers' industries, the competitive situation, interest and exchange rate trends, technological developments as

well as other risks and uncertainties. We perceive additional risks e.g. in pricing developments, unforeseeable events in the environment of companies acquired and Group member companies as well as in current cost savings programs from time to time. The SGL Carbon assumes no obligation and does not intend to adjust or otherwise update these forward-looking statements either.

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