Owens Corning Introduces New Range of WindStrand® Type 30® Rovings, Ultrablade® G3 Unidirectional and New Triax Fabrics for Rotor Blade Applications

Release Date:
Wednesday, March 12, 2014 9:29 am EDT

Terms:
Business & Product News [1]

Dateline City:
PARIS

Integrated fiberglass solutions help OEMs reduce cost of energy generated by on- and off-shore wind turbines

Owens Corning (NYSE: OC), a leading global producer of glass fiber reinforcements for composite systems, today introduced an enhanced WindStrand® Type 30® roving products platform for weaving fabrics at the JEC Europe show and conferences. This new product range is designed to deliver productivity and performance benefits to OEMs constructing and operating wind turbines in challenging on- and off-shore locations with differing wind speed conditions.

In combination with this redefined wind product platform, Owens Corning also unveiled its next-generation Ultrablade® G3 unidirectional and new Ultrablade® Triax fabric solutions for specific wind turbine rotor blade applications.

"The primary objective of turbine OEMs is to reduce total energy production cost to align wind power with other energy sources," says Dr. Christopher Skinner, Director of Product Platforms for Owens Corning's Composite Solutions Business. "To help achieve a reduction in the cost of energy, future wind turbines need to be manufactured as economically as possible while generating as much power as possible. Our new range of WindStrand® and Ultrablade® products deliver enhanced performance to address these needs."

The new product range comprises WindStrand® 2000, WindStrand® 3000, and WindStrand® 4000 Type 30® rovings - all of which provide high weaving efficiencies for fabrics with optimized performance at 90 degrees (T). Each product is designed to perform at differing higher fiber volume fraction (FVF*) levels. The new WindStrand® products deliver lower resin consumption, contributing to an overall blade weight reduction of between 2 and 6 percent, depending on the specific application and roving utilized.

Ultrablade® G3 unidirectional (UD) fabric offers a high modulus and excellent 90-degree (T) performance, and up to 20 percent greater resistance to long-term fatigue loads. Its architecture can be customized to specific end-use applications to meet market requirements for longer blades both on-shore and off-shore, and in low-wind areas. Ultrablade® G3 fabric displays excellent mechanical properties when used in UD spar cap application. It can also help reduce overall blade mass by up to 5 percent. Combined with an operating FVF level of more than 57 percent, Ultrablade® G3 UD fabric can help increase blade lengths by up to 20 percent for turbines operating in low-wind, on-shore areas.

The patent-pending optimal construction of the new Ultrablade® Triax fabric increases blade root laminate stiffness and strength providing a reduction of up to 17 percent of the load transferred to rotor blade root bolts, thereby substantially improving bolt fatigue life.

"Our new WindStrand® and Ultrablade® offerings provide weight-saving, tailored solutions that are helping designers and engineers conceive blades that are lighter and longer. And they deliver improved aerodynamic performance with resistance to higher, long-term fatigue loads,“ Dr. Skinner added. "These features enable the production of wind turbines that increase power yield and reduce the cost of energy."

The announcements were made today at JEC Europe, the world's largest annual composites trade show held in Paris, France, where Owens Corning is exhibiting in Hall 7-2 Booth F22.

WindStrand®, Type 30® and Ultrablade® are registered trademarks of Owens Corning. *FVF is the volume of fiber in a cured composite.

About Owens Corning

Owens Corning (NYSE: OC) is a leading global producer of residential and commercial building materials, glass-fiber reinforcements and engineered materials for composite systems. A Fortune 500® company for 59 consecutive years, Owens Corning is committed to driving sustainability by delivering solutions, transforming markets and enhancing lives. In business for more than 75 years, Owens Corning is a market-leading innovator of glass-fiber technology with sales of $5.3 billion in 2013 and about 15,000 employees in 27 countries. Additional information is available at www.owenscorning.com [2].

Language:
English