

RTP Company's Very Long Fiber Composite Improves Performance of Small-Scale Wind Turbine Blades

WINONA, MINNESOTA, USA -- (June 24, 2010) -- When China-based Hunan ZKenergy Wind Power Industrial Technology wanted to offer a reliable source for providing electricity to remote areas around the world, it adapted the technology of wind turbines to produce affordable, small-scale units suitable for off-grid locations. A crucial element in their success is very long glass fiber reinforced thermoplastic composite from custom compounder RTP Company that is used to injection mold the blades. The compound was chosen over other reinforced plastics due to the enhanced mechanical properties very long fiber composites provide.

"We worked with RTP Company to develop a suitable very long fiber product because it provided the highest strength-to-weight ratio we could find in an injection moldable material," said Danping Xie, Vice President of Design at Hunan ZKenergy. "The long glass fiber reinforcement provided high modulus and impact resistance that keeps the configuration of our blades constant, regardless of environmental conditions. Exceptional dimensional stability is critical for keeping the blades from changing their angle against incoming wind and greatly increases the efficiency of our turbines, especially in very humid or very dry conditions."

When compared to thermoset or metal materials, the very long fiber compound has a lower specific gravity, which makes the blade lighter and more efficient. In addition, it offers enhanced strength and a higher degree of rigidity than other injection moldable materials. "When our turbines are in operation, RTP Company's compound has been able to dampen vibrations within the blade, effectively reducing audible noise," said Xie.

By applying new design principles to increase performance and efficiency, Hunan ZKenergy has revolutionized the wind energy industry. "RTP Company's ability to help improve the performance of the blade, as well as their professional research and development team, made them the perfect supplier for us," said Xie. "Our turbine blades are now able to outlast the life of the mechanical components of the turbine itself," he added.

For more information on RTP Company very long fiber composites or other custom compounds, call (507) 454-6900 or toll-free at (800) 433-4787, or visit our website at www.rtpcompany.com.

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About RTP Company

RTP Company, headquartered in Winona, Minn., is a global compounder of custom engineered thermoplastics. The company has ten manufacturing plants on three continents, plus sales representatives throughout the Americas, Europe, and Asia. RTP Company's engineers develop customized thermoplastic compounds in over 60 different engineering resin systems for applications requiring color, conductive, elastomeric, flame retardant, high temperature, structural, and wear resistant properties.

About Hunan ZKenergy Wind Power Industrial Technology Co., Ltd.

Located in Hunan, China, Hunan ZKenergy Wind Power Industrial Technology Co., Ltd, is a worldwide leader in the clean-energy field. They design and manufacture small wind turbines. For more information, visit their website at www.zkenergy.com