Case Study

Application: Blade Repair And In-Factory Production And Finishing

Gurit’s RENUVO™ uses UV LED curing technology

Gurit’s RENUVO™ offers a fresh and novel approach to the manufacture, maintenance and repair of today’s wind turbine blades. RENUVO uses UV light from specially-designed light source equipment to achieve full cure in just a few minutes.

The Phoseon® FireFly light source is an ideal solution for fast in-factory curing of RENUVO. The FireFly light source has been designed to give superior performance, maximum UV energy and real world reliability. The compact solid state device provides low energy consumption as well as being environmentally friendly, with no ozone generation and mercury free. The FireFly can provide the cure speed required for large scale factory processing using RENUVO materials. This product can provide a lower cost entry to using RENUVO for various applications both in field and in-factory.

Here are some processes that utilize Phoseon’s UV LED curing technology:

RENUVO Blade Repair
RENUVO blade repair materials are designed to be handled at temperatures as low as +5°C. This greatly widens the operating window for carrying out repairs and dramatically reduces the turbine downtime. RENUVO materials are easy to handle, requiring no mixing or awkward hand-impregnation of heavy glass fabrics.

RENUVO In-Factory Blade Production and Finishing
RENUVO materials are also suited to the automation and optimisation of existing in-factory blade production processes such as leading and trailing edge finishing, in-mould repairs and surface preparation prior to topcoat applications. As blade production processes can vary greatly, any of the RENUVO products may be combined in order to achieve a bespoke solution. In order to maximise the flexibility of such solutions, RENUVO WL has been developed specifically for in-factory applications.

RENUVO Wet Laminating System
RENUVO materials are also suited to the automation and optimisation of existing in-factory blade production processes such as leading and trailing edge finishing, in-mould repairs and surface preparation prior to topcoat applications.

About Gurit
Gurit is a leading global supplier of composite materials and technical solutions to the wind energy, transportation, tooling, marine markets and other selected application areas, integrating structural design, materials science, manufacturing technology and process engineering. For more information regarding Gurit’s RENUVO UV curing composite technology, visit www.gurit.com