Belzona 5721 LEP Solution for Cold Weather

ID: 8150

Industry: Power Customer Location: Wind Farm, Minnesota

Application: Application Date: September 2019

Substrate: Fiberglass/Gelcoat
Products: * Belzona 5721,

Problem

Over time, the leading edge of wind turbine blades become eroded and lose efficiency and power production for the turbine generator. Because of the time of year, the weather was very cold, and a blade repair solution was needed to properly complete the repairs.









Photograph Descriptions

- * 1. Damaged leading edge of wind blade,
- * 2. Belzona 5721 ready to mix,
- * 3. Finished Belzona 5721 application on leading edge,
- * 4. View of the Wind Farm,

Application Situation

Leading Edge Protection solutions need higher temperatures to properly be applied and cured. As temperatures dropped towards 40°F (4.4°C) there are not many solutions out there which will work.

Application Method

The application was carried out in accordance with a modified version of Belzona Know-How System Leaflet FBC-1. The blades were coated on the turbine at the operation site. The pitting and loss of surface on the leading edge was resurfaced with a filler product and rebuilt to dimensions. The surface area was sanded down with a mechanical sander and cleaned with a rag and non-residual solvent cleaner. One coat of Belzona 5721 at 20 mils (508µm) was applied.

For more examples of Belzona Know - How In Action, please visit https://khia.belzona.com

ISO 9001:2015 Belzona products are
FS 695214 manufactured under an ISO
ISO 14001:2015 9000 Registered Quality
EMS 695213 Management System.

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Repair • Protect • Improve

Belzona Facts The work was completed by the contractor thanks to Belzona 5721 as they could not normally apply LEP coatings on the blades at this time of the year. It saved the customer time as the coating cures in 6 hours, therefore downtime was substantially reduced.