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Polytech introduces site-optimized leading edge protection

Polytech is expanding its leading edge protection (LEP) portfolio by now offering a solution optimized for onshore conditions.

“There is no one-size-fits-all for leading edge protection. This is why we are expanding and optimizing our LEP offerings to better fit offshore and onshore environments. Our unique ELLE™ shells launched in 2016 are now applied on over 70% of all offshore blades. With this track record and field experience, we are happy to be expanding the LEP family with ELLE™ Onshore,” explains Polytech’s CEO Mads Kirkegaard.

ELLE™ Onshore can ideally be applied during blade manufacturing or later as retrofit from basket or rope.



Polytech is currently the only one on the market with a DNV-certified LEP solution (ELLE™). It was therefore natural that Polytech followed the same rigorous testing schemes, including rain erosion, peel, adhesion, hail and sand impact tests.

“We have spent over 10,000 R&D hours and tested on three continents developing ELLE™ Onshore, so you get protection, durability, and aerodynamics optimized for sites onshore. No edge sealer, no wet paint, no installation training, or special customization are needed. Furthermore, it can be applied between 0-100% relative humidity and the chamfered edges allow us to have a thicker protection at the center of the blade edge, where it matters,” explains Michael Drachmann Haag, Principal Engineer at Polytech.

Leading edge erosion continues to be a major issue and cost driver for wind turbine owners and operators globally. As turbines are installed at even more remote locations and reach higher tip speeds, asset owners are eager to find LEP solutions that minimize their repair costs.

“Our DNV-certified calculations show that ELLE™ Onshore will last more than a decade at most onshore sites. Asset owners only need to apply our solution once or twice instead of replacing or repairing the blade several times securing optimal AEP and avoiding blade debris being spread to the

local environment. We still encourage all asset owners and developers to use our site-specific erosion calculator so they can be in full control of their LEP strategy,” adds CCO Thorbjørn N. Rasmussen.

As ELLE™ Onshore is optimized for onshore sites, it complements Polytech’s original LEP offering, now called ELLE™ Offshore, which is ideal for both offshore and tougher onshore sites.

Polytech will continue to follow the market and add LEP solutions to the ELLE™ family.

About Polytech

At Polytech, we bring sustainable solutions to life that improve the durability and performance of wind turbines. Our solutions protect turbine blades from lightning and erosion, monitor and optimize turbine performance, and protect and monitor turbine equipment during transport, storage, and subsea environments.

Founded in 1994, we are now front-runners in wind power innovation and a trusted partner to major players in the wind industry, with locations in Denmark, China, and Mexico. Ultimately, our ambition is to help the world become powered primarily by renewables by finding new innovative and sustainable solutions to reduce the levelized cost of wind energy.

If you have questions to this press release, please do not hesitate to contact
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