

## Press release

19 September 2022

### Key messages

- Hempel launches its first leading edge protection coating for wind blades
- Hempablade Edge 171 provides long-term protection against rain erosion, and reduces time and costs during application
- Hempablade Edge 171 has the highest rain erosion performance data on the market for a liquid leading edge protection, and some of the lowest dry film thicknesses

## Hempel launches its first leading edge protection coating for wind blades

*Hempel, the leading coatings supplier to the wind energy industry, today announced the launch of Hempablade Edge 171, a new coating for leading edge protection (LEP) on wind turbine rotor blades. With the highest rain erosion performance data on the market for a liquid LEP, and some of the lowest dry film thicknesses, Hempablade Edge 171 provides long-term protection against rain erosion, and reduces time and costs during application.*

The leading edge of a wind turbine blade is exposed to extremely high airflow speeds, even exceeding 300kmh. At these speeds, impact from rain can cause significant coating erosion or even composite damage. In severe cases, the erosion may lead to a loss of aerodynamic performance and a 2-3% drop in Annual Energy Production. This loss of performance and need for maintenance makes leading edge erosion one of the wind industry's most significant maintenance costs and performance challenges. In the European offshore wind energy sector alone, this equates to a loss in productivity of around EUR 56-75 million a year.

Hempablade Edge 171 helps wind turbine operators and applicators overcome these issues, by protecting the leading edge from rain erosion, as Lars Rindom Jensen, Head of Solutions for Wind Blades, explains: "Hempablade Edge 171 is one of the simplest LEP solutions on the market to apply, yet able to withstand the toughest environmental conditions. It provides exceptional protection against rain erosion and composite damages. This extends the interval between maintenance and repairs, giving operators more uptime and lower maintenance costs."

Importantly for service providers, Hempablade Edge 171 requires some of the lowest dry film thickness on the market – just 150 microns – and only needs one or two coats to ensure high protection. This increases application speeds, allowing customers to maintain more blades with the resources available.

"Hempablade Edge 171 has been developed as we listened to the industry challenges and requirements," says Lars. "Its low thickness reduces LEP consumption, application time and drying time, so applicators can work faster, whether they are onsite or in the blade production. It also has a wide application window – from 5-35°C – which means applicators can extend the maintenance season and working day. The result is higher productivity and less blade downtime during maintenance."

Hempablade Edge 171 is Hempel's first LEP coating, developed using the company's in-house Rain Erosion Test (RET) facility. Since 2019, Hempel has used this facility to optimise the product development and LEP validation process – resulting in a best in class liquid LEP offering outstanding rain erosion protection. With the addition of the coating to its portfolio, Hempel can now provide a full range of coatings to customers for every part of a wind turbine, from the foundation to the blade tip.

“Hempel is recognised as the industry's leading coatings supplier,” Lars explains. “We fully understand the challenges manufacturers, operators and maintenance companies face and are the only coatings company with an in-house RET facility. During development and validation, we put Hempablade Edge 171 through more than 400 exhaustive tests to ensure it delivers extremely valuable performance and application benefits. We are very proud to offer it to our customers.”

Hempablade Edge 171 was launched on 19th September and is available globally. Read more here: <https://www.hempel.com/blades>

### **Hempablade Edge 171 at a glance**

A fast-cure, solvent free liquid LEP (Leading Edge Protection) coating for wind turbine rotor blades.

- Exceptional rain erosion protection performance
- Has undergone over 400 Rain Erosion Test (RET) sessions
- Very fast and simple manual application
- Strong UV resistance
- Wide application window (5-35°C) allows for optimized use during blade maintenance situations
- Highly flexible providing high rain drop energy absorption
- Only 1 or 2 coats required for full leading edge protection
- Extremely low coating thickness (150-300µm) for LEP consumption
- DNV-GL RP-0171 complaint

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### **For more information, please contact:**

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### **About Hempel**

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the decorative, marine, infrastructure and energy industries. Hempel factories, R&D centres and stock points are established in every region.

Across the globe, Hempel's paints and coatings can be found in almost every country of the world. They protect and beautify buildings, infrastructure and other assets, and play an essential role in our customers' businesses. They help minimise maintenance costs, improve aesthetics and increase energy efficiency.

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At Hempel, our purpose is to shape a brighter future with sustainable coating solutions. We firmly believe that we will succeed as a business only if we place sustainability at our heart. Not only is it the right thing to do, it will strengthen our competitive position, make ourselves more resilient and reduce our risk.

Hempel was founded in Copenhagen, Denmark in 1915. It is proudly owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

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