



Hempel provides innovative coating solution for offshore wind farm in Zhanjiang

The expansion project with an installed capacity of 300MW of the offshore wind farm in Xuwen County, Zhanjiang City owned by the State Power Investment Corporation Limited (SPIC) is expected to send 0.899TWh to the power grid annually once all of its generator units are connected to the grid and put into production, equivalent to the basic electricity consumption of 370,000 households throughout the year. With this project, about 272,000 tons of standard coal will be saved and carbon dioxide emissions will be reduced by 723,300 tons each year. It will effectively push forward the overall strategic planning of new energy projects in Zhanjiang City and Xuwen County, accelerate the important development of modern economic zones along the coast, and provide firm energy security.

With rich experience in the protection of wind power facilities and a proven track record in this industry, Hempel provided customized coating solutions for this project. For the jacket foundations and pipe piles, we provided our innovative product Hempaprime Strength. This product contains reinforced glass flakes, which can form a highly resilient and high-quality film after curing, providing long-term protection for offshore wind power equipment in splash zones and fully immersive zones and thus reducing the need for maintenance.

Hempaprime Strength provides protection for offshore wind farm in Zhanjiang

The Challenge

The expansion project with an installed capacity of 300MW of the offshore wind farm in Xuwen County, Zhanjiang City is the one with the largest capacity of a single unit among offshore wind power projects under construction and operation in Zhanjiang during the year 2023 as well as the only offshore wind power project under construction in Zhanjiang. As a supplement to the 600MW offshore wind farm invested by SPIC, this project will have 25 wind turbines with an installed capacity of each unit of 12MW, supported by a 220KV offshore booster station. The total investment is over CNY3 billion.

Since offshore wind power equipment is subject to harsh and corrosive environments, the client required highly competitive anti-corrosion coatings that not only provide excellent performance but also offer eco-friendly properties, which can reduce the impact on the environment and the risk of exposure for workers. Besides, for the areas on the jacket foundations to be applied, there are extremely demanding requirements for anti-corrosion materials and application processes. Therefore, easy application and rapid drying of the coating products are also necessary.

The Solution

In response to the needs of the client, Hempel provided an innovative coating solution based on Hempaprime Strength. This product can provide long-term protection for offshore wind power equipment, not only suitable for environments with heavy corrosion such as splash zones but also suitable for those with permanent immersion. As a high-build and self-priming epoxy coating, Hempaprime Strength will form a wear-resistant and corrosion-resistant layer after curing. With reinforced glass flakes, this product offers superior resistance to wear and chemicals.

Hempaprime Strength not only enjoys a low VOC content but also high volume solids, making it easy to apply. It is also a fast-drying coating which can improve production efficiency and help reduce costs. The client expects to benefit from the excellent performance of this product in the coming years.



At a glance	
Location:	China
Project:	SPIC Zhanjiang Xuwen offshore wind farm 300MW expansion project
Product:	Hempaprime Strength
Applied area:	Jacket foundations and pipe piles
Year:	2023

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