

PPG SIGMACOVER™ 850

Our robust, long-lasting coating system protects Hornsea One offshore wind farm

Case study



The Customer

Dragados Offshore Fabrication yard located in the south of Spain, near Cadiz, using the external application company Gaditana de Chorro.

Hornsea One wind farm is a joint venture between Ørsted, the global leader in offshore wind, and Global Infrastructure Partners.

The Location

Four jackets supporting the Offshore Substation Topsides (OSS) off the Yorkshire coast, Great Britain.

The Challenge

To apply a robust, long-lasting coating system to the world's largest offshore wind farm in rough waters 120 km offshore.

The Solution

PPG SIGMACOVER™ 850 high-solids epoxy coating reinforced with glass flake for improved impact- and abrasion resistance, and proven to pass tough NORSOK M-501 Rev. 6 requirements for splash- and immersion zone – Systems 7A and 7B.

The Benefits

Our PPG SIGMACOVER 850 coating is a proven, high-solids epoxy product that ensures low VOC content. It has a long track record and provides easy application with excellent sagging resistance to deliver greater productivity.

The Result

The result met all expectations regarding the coating's outstanding application properties, aesthetic appearance and proven durability.

The Customer

Dragados Offshore S.A. is a leading engineering, procurement, and construction (EPC) contractor for the oil, gas and other energy-related industries. Four decades of experience in both offshore and onshore projects give them a solid track record, ensuring that most complex and challenging projects will be successfully planned, executed and delivered.

Gaditana de Chorro, with headquarters in Puerto Real is a very experienced and specialized paint applicator that has worked in the maritime and industrial sector since 1984. Gaditana is very active and well known in the Offshore market where they has developed very important projects for Oil & Gas and Wind Power segments.

Ørsted A/S with headquarters in Denmark, is a global leader within the clean energy sector and contributes to transforming the world's energy systems from fossil based to carbon neutral sources of energy. The company is also the global leader in developing and building offshore wind farms.



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The Challenge

In 2019, Hornsea One is the world's biggest offshore wind farm, consisting of 1,218 MW and 174 turbines, installed on 174 monopiles/transition piece foundations. The four OSS's are strategically placed and will convert the high voltage power generated from the wind turbines, then send it to the National Grid via the RCS, which is installed between the offshore wind farm and the shore.

The size of the wind farm's four jackets, the rough waters and the location far from shore, meant that the durability of the coating system must be of the highest standard. Any solution for the four jackets would also need to have a global, proven record, have been through extensive testing to meet NORSOK requirements and satisfy all customer expectations.

The Solution

To meet the extreme challenges and customer requirements, we proposed a system with our PPG SIGMACOVER 850 coating as the main component that offers a tough and proven atmospheric-, splash- and immersion zone solution including a durable polyurethane topcoat.

The system also has excellent seawater-, crack- and corrosion resistance, which results in long-term asset protection.



The Benefits

Our PPG SIGMACOVER 850 coating is an established, proven high-solids epoxy product, which ensures low VOC content with good application properties. It has a long, global track record in many different environments, with easy application and excellent sagging resistance that produces greater productivity.

PPG SIGMACOVER 850 – Key Features and Benefits

- Two-component, glass flake, ultra-high-build, polyamine adduct-cured epoxy coating
- Designed for use in heavy-duty and corrosive environments
- Glass flake reinforced for improved impact- and abrasion resistance
- Excellent seawater-, cracking- and corrosion resistance
- Resistant to well-designed cathodic protection
- Strong adhesion properties, suitable for wet blast cleaned substrates (damp or dry)
- Qualified for NORSOK M501, Rev. 6 System 7A and 7B

The Result

Our global expertise and capability, reinforced by our unified EMEA technical support, enabled this important project to be implemented smoothly. The experienced PPG Technical support team provided the most suitable solutions on-site and field technical support during the fabrication phase.

Accordingly, the final result met all customer expectations regarding the coating's outstanding application properties, aesthetic appearance and proven durability.

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