



# Iconic port crane rehabilitation assured with Hempel integrated solution

The huge Titan crane in the port of Leixões in Portugal has been an industrial landmark for over 130 years, visible from both land and sea. Years of exposure to the harsh marine environment had left the crane unusable. Then, in 2021, the port authorities decided to rehabilitate the crane ready for re-use. Hempel put together an integrated solution for the project.

An integrated solution from Hempel comprises a unique package of products and services, tailored to meet the needs of each project. In the case of the Titan crane, the solution included a coatings package based on our award-winning Avantguard activated zinc primer, technical support from our Services team in Portugal and a performance guarantee.

As well as increasing efficiency during application, this combination will ensure that the iconic Titan crane remains corrosion free for many years, despite the extremely harsh marine environment.

# Avantguard coating system and Hempel Services guarantee coating performance

Anyone who walks the Matosinhos beach near Porto in Portugal will see the huge Titan crane at the entrance of Leixões harbour. The crane was re-erected in 2021 after extensive repair work – and once again presides over the harbour entrance.



## At a glance

Customer	Vesam Group, a pioneer in creating integrated and innovative solutions in metallic and mixed structures
Sub-contractor	Prozinco, a civil construction company with long experience in anti-corrosion protection of new constructions and rehabilitation projects
Project	The iconic Titan crane in the port of Leixões, Portugal
Coating system	Primer: Avantguard 750 Intermediate: Hempaprime Multi 500 Topcoat: Hempthane HS 55610
Area	4,000 m <sup>2</sup>

## The challenge

During the restoration, some of the steel from the original crane was re-used. The rest was replaced. As a result, the crane needed an anti-corrosion solution that could be applied to both new and rehabilitated steel. The solution also had to be extremely robust, as the crane will stand for many years in the extremely corrosive port-side environment.

Engineering company Mecwide was responsible for the project. It asked Vesam Group, an expert in creating integrated and innovative solutions in metallic and mixed structures, to design the solution. Long-standing Hempel customer Prozinco was contracted to complete the anti-corrosive work. Prozinco is an industrial paint applicator and steel construction company with long experience in anti-corrosion protection of new constructions and rehabilitation projects.

## The solution

We specified a complete integrated solution for the project, combining coatings, technical service and performance guarantee. The coatings package was based on our Avantguard 750 zinc epoxy primer.

Thanks to activated zinc technology, our Avantguard zinc epoxy primers utilise three methods of corrosion protection: the barrier, inhibitor and galvanic effects. As a result, Avantguard coatings can provide the same or better corrosion protection than other zinc-rich coatings, with fewer coats or at thinner dry film thicknesses. This helps extend coating lifetime and reduce maintenance requirements, while also reducing paint consumption and VOC emissions during application. Avantguard primers also dry significantly faster than other zinc-rich coatings and remain easy to apply, even in high humidity and at different temperatures.

At the start of the project, our sales team and laboratory in Portugal worked closely with Prozinco to ensure the perfect coating specification for the crane. In addition, our Services team assisted Prozinco during application, overseeing all aspects of surface preparation and application to ensure a high-quality finished coating, with minimal time and waste.

To give Mecwide, Vesam Group and Prozinco additional peace mind, our solution also includes a performance guarantee, which guarantees that the coating system will protect the crane for at least 25 years.

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