



## Major new power plant switches to Avantguard<sup>®</sup> 860 for improved productivity and superior<sup>1</sup> protection

Costing some €1.39billion, the Ptolemais V expansion is Greece's largest investment in energy production. Set to produce 660MW of power, it will produce affordable electricity for the people of Greece with significant benefits to the Greek economy and environmental footprint.

Hempel are pleased to have been trusted to provide superior performance<sup>1</sup> protective coatings for steel structures for this project, including the boiler house.

Originally specified with inorganic zinc silicate primer, we proposed a change to our advanced Hempadur Avantguard 860 primer, since it provides many benefits including best-in-class productivity<sup>2</sup> with reduced over-coating times.

Unlike traditional zinc epoxies, Avantguard technology activates all of the zinc in the coating, which significantly improves the coating's anti-corrosive performance and mechanical strength, while remaining easy to apply. This means more accurate application, in a shorter time with the assurance of a high performing, longer lasting coating and lower future maintenance costs.

Avantguard 860 delivers the corrosion protection at the level of an inorganic zinc silicate with the application benefits of an epoxy.

# Ptolemais Unit V power plant

At a glance	
Contractor	Terna S.A.
About	Terna S.A. is a major EPC Contractor, focused on civil structures, power plants and industrial facilities
Coating system	Hempadur Avantguard 860 Hempadur Mastic 4588W Hempathane Topcoat 55210
Total project volume	265,000 liters
Application	Airless spray

## The challenge

Applying a system with a traditional inorganic zinc primer to a steel structure takes a considerable amount of time due to its application challenges in terms of ambient requirements, need of a mist coat and the tendency of cracking of zinc silicates. Hempel was asked to provide a solution to overcome these challenges.

## The solution

With best-in-class drying times<sup>2</sup>, 4x faster than inorganic zinc silicates, and proven superior<sup>1</sup> performance, our Hempadur Avantguard 860 primer was the answer.

Based on our recognised activated zinc technology, Hempadur Avantguard 860 sets a new standard in the protective coatings industry.

The additional benefits afforded by using Hempadur Avantguard 860 were supported by tests proving our product provides the same level of corrosion protection as the originally specified inorganic zinc silicate, whilst also considerably minimizing the application risks and improving the over coating interval time. Due to this, the green light was given to proceed with the project using Hempadur Avantguard 860.

As a result, the project will benefit from an improved application process and a robust coating solution that will keep the power plant in pristine condition for years to come.

Discover Avantguard at [www.hempel.us](http://www.hempel.us)

<sup>1</sup> This superiority has been independently proven by third party laboratory neutral salt spray tests according to ISO 9227. In this test, steel protected with Avantguard produced a lower evolution of rust creep, assessed according to ISO 12944-6, when tested up to 3x the duration for C5-high environments.

<sup>2</sup> Hempadur Avantguard 860 is 4x faster drying than standard IOZs, based on a typical system, when comparing product data sheets.



Facility photographs are courtesy of Nikos Daniilidis

## Avantguard redefines anti-corrosion

Hempadur Avantguard 860 is the first of its class, specifically developed to overcome the problems experienced with inorganic zinc silicate primer application, without compromising corrosion protection and boosting productivity.

### Triple Activation with patented Avantguard® technology



In order to achieve full zinc utilization, we combine zinc, our proprietary activator and hollow glass spheres. Avantguard is also the only zinc-rich primer to use all three methods of corrosion protection:

#### Barrier effect | Inhibitor effect | Galvanic effect

Triple Activation with patented Avantguard technology provides superior protection, durability and sustainability compared to standard zinc-rich primers. So you save on application and maintenance costs, while your assets last longer.

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