

Trusted protective coatings

for the power
generation industry



Global service, proven solutions



World-leading coatings supplier

Hempel was founded in 1915 and is today one of the worlds leading manufacturers and suppliers of protective coatings. We offer advanced performance solutions to protect your assets in challenging environments around the globe.

With a history rooted in protective coatings for the extreme conditions experienced in the Marine, Decorative and Protective industries, you can be assured that we offer trusted technology, expert technical service and reliability.

Hempel has vast expertise and knowledge, so you can be assured that by choosing Hempel, you are choosing a brand you can trust.

Global presence

Hempel is able to supply coatings globally and can also supply different kinds of coatings at different locations for the same project.

Proven performance

We have a full range of coatings that offer a winning combination of high performance protection and optimised application for conventional power installations globally. Hempel has coated structures in the most challenging locations, and, with a proven track record of more than 500 power projects for the last 30 years, is the trusted protective coatings partner for customers around the world.

Professional support

Hempel's multinational, globally based technical service teams are uniquely positioned to ensure the smooth running of your project. From planning to completion, specification to application, we have key people to support you both off and on-site.

Research and development

With 10 global research and development facilities, Hempel works locally with you to provide the right solution for your project. Our research and development teams are committed to continuous development of innovative and effective speciality coatings to give you durable protection in aggressive industrial environments.



A major midwestern utility company switches to Hempel

A major US power supplier providing electricity to over 6 million customers across the states of Ohio, Pennsylvania, West Virginia, Virginia, Maryland, New Jersey and New York, chooses Hempel to protect its assets.

The team at Hempel USA and the customer have been working closely together to provide protective coatings for the Midwestern power plant, particularly for the FGD scrubber units.

Flue Gas Desulphurisation (FGD) technology removes Sulphur Dioxide and Hydrogen Chloride (Hydrogen Chloride, HCl, is commonly and correctly referred to as Hydrochloric Acid) from the exhaust flue gasses emitted by conventional fossil-fuel power plants in a Scrubber using a slurry of lime and water. The Sulphur Dioxide reacts with the lime slurry to produce Calcium Sulfate, commonly known as Gypsum, and the remaining flue gas is released through the chimney.

The internal surfaces of the Scrubber Units are exposed to the highly corrosive environment created by the process including high humidity, elevated temperatures, acidity, chlorides, and chemical and physical abrasion.

The customer has chosen to line their Scrubber Units with Hempel's Versiline® Vinyl Ester linings. Each scrubber unit covers approx. 5,500sqm/16,000 sqft. The applicator was Avalotis Corporation, headquartered in Verona, PA, USA. Mr. Aivalotis, part owner of Avalotis Corporation, commented, "Hempel provided excellent technical support throughout the project".

After lining, the absorbers will operate for 12 months and then be inspected to ensure the protective coating systems are performing to the highest standards.

To date Hempel has supplied linings for two of the eight absorbers. The first installation was inspected after 12 months of operation with no deficiencies noted, leading to the customer continuing to specify Hempel Versiline Vinyl Ester coatings on further units.

For this major US power supplier, Hempel offers the right solution to meet their needs with four tailored coatings systems (TL - 405, TL - 280, TL - 280AR and TL - 280RI) that address the specific process zones of the unit, giving proven, durable results and backed up with a reliable and flexible on site technical service.

At a glance	
Applicator	Avalotis Corporation
Location	USA
Date	2013 - present
Coating System	Versiline Vinyl Ester linings
Delivery	Local





Hempel's unique service to the power industry

Hempel understands the specific needs of the power generation industry. Whether you are working with coal, gas, oil or any other kind of fuel Hempel has a coating to protect every part of your power plant and is trusted and specified by many of the major EPC contractors and OEM's.

We are uniquely positioned in key locations with dedicated, conventional power focussed teams so you are assured of tailored, total solutions and expert service throughout your project.

Our proven, high performance coatings are designed to deliver advanced corrosion protection and temperature, chemical and abrasion resistance, for tough, long lasting protection for all your plant and equipment.



We ensure all our products and systems meet stringent standards, whether global, local or customer specific so you are assured that you are meeting your individual requirements.

Hempel has a large range of maintenance coatings to keep your investment running 24 hours a day, seven days a week.

Our performance and productivity range of coatings meet ISO 12944 specification standards and are fast curing, optimising application, reducing down time and giving strong results.

- For Coal fired power plants we offer tailored coatings for protection of boilers and specialty coatings for protection of FGDs.
- For Gas fired power plants we have developed special coatings for air intakes and temperature resistant coatings.
- For Hydro power plants we deliver special coatings to protect water intakes and have an extensive range of coatings to protect concrete.

Air intake suppliers for gas fired power plants rely on Hempel

Background

Hempel is specified by several manufacturers of air intakes as the trusted coating for the air intake units that they supply throughout Europe. Hempel has the capacity to supply coatings world wide, provides outstanding technical service and with proven products curing at low temperatures (down to -10°C), Hempel has the perfect credentials for subcontractors coating air intakes on site.

Hempel is part of the supply chain for air intakes for many companies, including Siemens, Alstom and their subcontractors Faist, Camfil Power Systems and Bilfinger Gerber. The steel fabricators of the air intakes rely on Hempel to provide the coatings exactly where and when they are needed to maximise performance and productivity. Hempel prides itself on creating lasting relationships with customers throughout the supply chain.

The challenge

After many successful years supplying coatings for air intakes, one of the main coatings Hempadur Hi-Build 45201 approved by power plant engineering companies was modified to give the improved formulation Hempadur Fast Dry 45410.

The solution

This modified product (Hempadur Fast Dry 45410) was rigorously tested together with other coatings regarding resistance to special cleaning agents used for the interior of air intakes as requested by the power plant engineering companies. It proved successful, becoming the approved protective coating for air intakes for Siemens, amongst others.

At a glance	
Main contractors	Major power plant engineering companies like Siemens, Alstom etc.
Subcontractors	Faist, Camfil Power Systems, Bilfinger Gerber
Steel Fabricator	K-Supra
Location	Europe combine cycle power plants in Germany, Turkey, Russia, Slovakia, Czech Republic, Austria etc.
Date	Hempel has been specified by suppliers of air intakes and used in K-Supra since 2004 and continues to be the trusted coating for power plants across Europe, supplying coatings for approx. 6 installations every year. Coating System: 3 coats Epoxy internal and 2-3 coats Epoxy plus 1 coat Polyurethane for exterior surfaces.
Delivery	Local for main production unit as well as multi-point global delivery for jobs on site.

Key products

In addition to our standard range of trusted protective coatings, we offer speciality coatings specifically developed for the harsh environments experienced in conventional power plants.

- CUI.
- Air intake coatings.
- High temperature resistant coatings.

Versiline Vinyl Esters

This range of coatings can be combined in various systems to create tailored solutions. Versiline Vinyl Esters are strengthened with an epoxy, have very low permeation and are highly resistant to condensing acid fumes, heat and thermal cycling.

Versiline flue-gas desulphurisation systems

Versiline systems offer high temperature performance, resistance to torsional twisting and they are formulated to provide long-term solutions to your toughest corrosion and erosion problems.

Product focus

Avantguard® redefining anti-corrosion

Hempel's Avantguard, is an innovative, award winning anti-corrosion technology based on activated zinc and locked in to Hempel's new range of high performance protective coatings. This new generation of zinc rich primers reduces the effects of corrosion and offers you advanced protection. The increased durability has been proven in extensive tests and is certified to ISO 12944 rev 6.

Trusted solutions

Hempel has been a reliable provider of anti-corrosive protective coatings for 100 years and continues to develop market-leading solutions to deliver advanced results for our customers around the world.

By choosing Hempel, you are choosing a brand you can trust.



Baolihua Group uses Avantguard for the Jia Hu Wan power plant

Guangdong Baolihua Group Co. Ltd. has chosen Hempel as the favoured coating supplier for the first phase of the Jia Hu Wan 2x1000 MW power plant to a total investment of 8.831 billion Yuan (1.32 billion EUR).

The customer's prime concern is the high quality of protection and durability provided by the coatings to ensure reduced maintenance costs.

Hempel's Hempadur Avantguard 770 activated zinc primer has proven to be the right choice, not only giving the customer the long-term benefits, but also offering improved application properties, giving immediate cost savings.

The collaboration with Guangdong Baolihua Group includes Hempel as the designated anti-corrosive coating supplier as well as the supplier of technical service and supervision.

The total volume of paint for phase 1 is estimated at 150.000-200.000 litres and the construction of the power plant will start during 2015. The first phase is estimated for completion in 2017.

Hempel will inspect the coating system as part of the negotiated service level agreement, and will continue to monitor the performance of the system over the coming years.

Since 1915 Hempel has been producing protective coatings that help customers to safeguard their assets whilst keeping them looking their best. Today we are a world-leading supplier of trusted solutions in the Protective, Decorative, Marine, Container and Yacht markets. Employing over 5,000 people, across 80 countries worldwide, with 27 factories and more than 150 stock points globally. This includes many recognised brands like Crown Paints, Blome International Inc, Schaepman and Jones-Blair.

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