

Globally trusted, locally relevant

Our commitment to trusted solutions

At Hempel, we see ourselves as guardians of our customers' most valuable assets.

We never stand still, united by our promise to deliver trusted coating solutions.

> Around the globe, we give our customers advice, support and products they can depend on: coating solutions that not only provide superior protection, but also help improve the efficiency of what they do. This is why we exist and why we are the partner of choice in over 80 countries worldwide.

Trusted Solutions

24

With production facilities around the globe, we can ship many products within 24 hours.

20

A truckload of our coatings leaves one of our factories roughly every 20 minutes.

750

Around 750 litres of Hempel coatings are applied somewhere in the world every minute.

Adding value to every business

At Hempel, we work across a wide range of industries. Our knowledge and expertise are broad, but our goals always remain the same: to provide our customers with proven products and solutions that add real value. We do this by continually investing in R&D, to ensure that we are developing technology that not only furthers our customers businesses, but helps to reduce their environmental impact too.

Backed by a global team, Hempel has established itself in many countries around the world. This allows us to provide our customers with customised, locally-adapted services.



Local market areas



Oil & gas

For 50 years, we have supplied corrosion-proof, high temperature-resistant, and special protective coatings for the oil & gas industry.



Chemical plants

Hempel has supplied chemical plants with anticorrosion, insulationlining and chemical-resistant coatings for over 50 years.



Power generation

We have offered total protection suited to coal, gas, wind, hydroelectric and renewable energy plants for 40 years.



Port machinery

Hempel coatings are renowned worldwide for protecting cargo-handling equipment, maintaining port activities in active service for longer.



Infrastructure

Hempel's intumescent fireretardant, protective and decorative coatings are used on skyscrapers, bridges and other buildings across the globe.



Mining

Our epoxy protective coatings lend good weathering, anticorrosion, impact- and abrasion-resistant properties to the global mining industry.



Railway wagons

We can supply costeffective, wear-resistant and water-based coating systems to suit all railway needs compliant with environmental regulations.

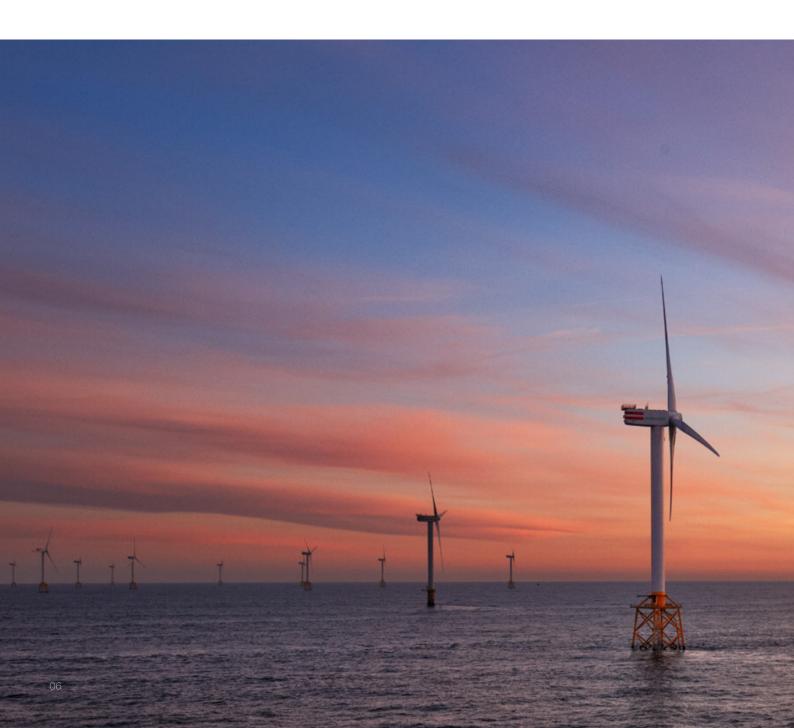


Water & waste

Hempel's high-performance corrosion- and chemicalresistant primers and topcoats guarantee better service life across the water treatment industry.

In the harshest industrial environments

From wind farms in the North Sea to pipelines across the desert, the world's industries and infrastructure are exposed to some of the harshest conditions on the planet. Around the globe, our coatings protect valuable industrial assets from corrosion to help keep our world moving.



The world is changing at an incredible pace. Populations are growing, technology is advancing and the demand on our resources is relentless. We need ever smarter infrastructure and industries to help power our cities, connect populations and produce the commodities we rely on – and our coatings play a vital role.

From bridges and tunnels to stadiums, skyscrapers and oil rigs, our coatings are proven to protect in even the most severe conditions. But we offer more than just protection. On every project, we work closely with our customer to develop a specific coatings solution that will help improve safety and extend maintenance intervals. With experience across the protective industries, we provide a full suite of coatings, from quick-drying systems that increase production speeds to environmentally friendly coatings that are setting new standards in the industry. All our products are designed for easy application, low maintenance and a long service life, and we are constantly pushing the boundaries of coating technology in the search for ever-better solutions.

2

Our passive fire protection coatings enable steel structures to maintain their load-bearing capacity for up to two hours during a fire, giving people valuable time to evacuate the building.

Did you know ...?

Our interior gas pipe coatings help create a smooth surface profile inside the pipe to improve gas flow. This means less energy is required to transport the gas, which helps reduce investment and operational costs for pipe operators.

3

Our activated zinc epoxy primers utilise all three methods of anticorrosion protection – barrier, inhibitor and galvanic – to significantly improve performance compared to zinc epoxies without activated zinc technology.

"Troja bridge is like a sculpture, and a beautiful addition to the city of Prague"

ECCS European Steel Bridge Award Jury

Hempel protects Prague's awardwinning bridge for the ages

Designed by Mott MacDonald, Troja Bridge has attained iconic status in Prague since opening in 2014. This 262 m long arc over the River Vltava carries pedestrians and cyclists, four lanes of road traffic and a double tracked tram line.

Hempel needed to find the right system to provide the bridge with impeccable weather resistance in a C5-I environment. The bridge has also been designed to bear heavy loads and has an unusually high number of joints, so the paintwork would need to stand up to considerable usage.

The unique solution for this bridge included Hempadur Zinc 17360 applied in the workshop, followed by Hempadur Fast Dry 15560 and Hempathane HS 55610 coated on site. The entire system was successfully validated in accordance with the Ministry of Transport's regulations for 30 years' service life.

It was not long before this bridge started catching the eye of judging panels. In 2015, it won the ECCS's Steel Bridge Award, with the jury praising its "beautiful design" and "slender structure and elegance" and concluding by saying that "Troja Bridge is like a sculpture, and a beautiful addition to the city of Prague".



Hempacore protection for Birmingham Children's Hospital

Every year, around 1,700 children are diagnosed with cancer in the UK, of which more than 250 new cases are treated at Birmingham Children's Hospital (BCH). That is why BCH is investing £37.5 million on a new, four-storey clinical block. This new facility will house the UK's pioneering Rare Diseases Centre for children, as well as a combined in-patient and out-patient cancer centre and three new operating theatres, providing increased capacity and streamlined care for young patients with cancer and rare diseases from all over the West Midlands and beyond.

The main contractor is Interserve, the UK-based international support services and construction group, who are planning to deliver the facility in late 2017. The interior colour scheme, inspired on scenes from nature and on the Birmingham canals, was designed in collaboration with children and young people from the hospital's Young Persons Advisory Group. Similarly, public safety is also of paramount importance to the designers of this eye-catching construction, linked to the hospital's iconic Victorian building from the ground floor foyer, which includes a bright and airy courtyard, café, breastfeeding room and a chill-out space.

Hempel technicians supported Shirley Industrial Painters, long-standing users of our paints, in responding to the hospital governors' and Fire Prevention officer's enquiries about the merits of our Hempacore One range of intumescent coatings, which provide up to 120 minutes' passive fire protection of structural steel against cellulosic fires. Based on an earlier project at Birmingham University, Shirley selected the fastdrying FD 43601 version as the intermediate/topcoat, because, as a single-component paint with drying times of less than 10 minutes at standard room temperature and humidity levels, as well as providing coating thicknesses of up to 1100 microns per layer, it offers extraordinary advantages in terms of productivity rates for airless spraying on site alongside other construction work in progress.

As David Melbourne, BCH interim Chief Executive, stated "Finally, the world-class care that we know we provide to our children and young people will be given from world-class, hugely improved facilities, which is going to make an enormous difference". For Hempel, it is an enormous privilege to know that our coatings play a significant role in achieving such worldclass standards.

An energyefficient fleet

The sea's shipping routes are vital arteries for the global economy. They are also extremely challenging environments for the ships that sail them. Our coatings help keep the forces of nature at bay, while also improving energy efficiency and environmental performance.

1917

Ne launched our first fuel-saving antifouling coating for ships' hulls in 1917. Today, we still lead the world in Fouling control technology.



Our special coatings for ships' hulls reduce a vessel's fuel consumption and CO² emissions by up to 8 per cent, significantly improving efficiency and environmental performance.

70 million

We have sold more than 70 million litres of fibre-reinforced coatings over the last 20 years. From the frozen expanses of the Arctic to stormy southern seas, the marine environment is one of the most inhospitable on the planet. Above the waterline the combination of corrosive sea air, and the wear caused by loading and unloading cargos, quickly erodes unprotected metal. Below the waterline marine organisms cling to the hull, wreaking havoc on a vessel's hydrodynamics and driving up fuel bills and emissions.

We have helped customers overcome these challenges for over 100 years, constantly pushing the limits of what coatings can do in order to offer even greater protection and fleet efficiency. Today, we can supply a proven and technology-leading coating for almost any area of a vessel, from the ballast tanks to the accommodation. Whether we are supplying sea stock for on-board maintenance or a complete suite of coatings for a new build, our approach is always the same. We work closely with customers, from specification through to application and maintenance, to ensure they benefit from a coating solution that protects their vessel and improves its overall efficiency.

We supply coatings for every area of a vessel:

- Underwater hull
- Ballast tanks
- Cargo holds
- Cargo tanks
- Decks, topsides and superstructure
- Accommodation
- Potable water
- Seastock



"Reducing energy consumption not only means ships pollute less, it also makes commercial sense as we can cut down on our costs."

GRIMALDI LINES

The Grimaldi Group

Reducing fuel consumption and emissions

Thanks to our silicone hull coatings, the Grimaldi Group has seen fuel consumption and emissions drop on over 30 vessels.

When fouling organisms such as barnacles and biological slime attach to a vessel's hull, the extra drag they create means more fuel is needed to move the ship – which drives up both fuel consumption and associated $\rm CO^2$ emissions.

As fuel is the no. 1 expenditure for most ships, anything that can reduce fouling can mean sizeable savings for vessel owners, and considerably lower emissions into the environment.

Our hydrodynamic silicone hull coatings have been proven to reduce vessel fuel consumption and associated emissions by an average of 6 per cent a year. But, as the Grimaldi Group discovered, actual fuel reductions can be significantly higher.

A multinational logistics group specialising in cargo and passenger transport, Grimaldi has applied our silicone hull coatings to more than 30 vessels – including seven vessels in just one month. On every coating application, our team of coating advisors worked closely with Grimaldi throughout the drydock to ensure the coating system was applied correctly and efficiently, and that every vessel was quickly back out at sea.

17333

A world of colour

Coatings are perhaps the most seen, yet most overlooked, products in the world. From our homes and places of work to our museums, schools and public buildings, coatings are all around us – helping make our lives safer, brighter and more colourful.



From when we wake up in the morning to when we go to bed at night, colours play an important role in our lives. They affect our mood and how we think. They can make us feel brighter and lighter, and can give us a greater sense of wellbeing.

At Hempel, we are passionate about colour. Our decorative products come in all colours of the rainbow and our colour advisors are always on hand with help, advice and inspiration to help customers choose the ideal colour scheme for both the interior and exterior of their building.

A coating system must also protect a building from the weather, pollution and general wear and tear. Using years of experience in the protective industries, we have developed a range of robust decorative coatings for any substrate and almost any need, from hardwearing glossy finishes to heat-reflective exterior coatings for hot climates. We also provide specialist paints for different areas and needs, such as anti-mould and antibacterial coatings that help improve hygiene in hospitals, bathrooms and canteens.

With a broad range of products, we can supply the perfect coating solution for an entire building from floor to roof. All our products are designed to increase building lifetime and ensure lasting aesthetics, minimal maintenance and a beautiful finish.

5

When applied to buildings in the Middle East, our heat-reflecting exterior coatings reduce the energy consumed by air conditioning units by an average of 5 per cent.

Did you know ...?

Colours can do amazing things. The colours in a school, for example, can help improve student concentration.

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All our decorative products are lead-free, and we are committed to developing sustainable solutions without compromising on quality or performance. "Hempel Decorative has an extensive range of products designed to protect and decorate any area in a building, from the outside walls to the floors, as well as affording intumescent fire-protection for the most essential parts of the construction."

Protection and decoration

Hempel Decorative has an extensive range of products designed to protect and decorate any area in a building, from the outside walls to the floors, as well as affording intumescent fire-protection for the most essential parts of the construction. Naturally, they are applicable on any of the materials used - plaster, cement, wood, metal etc.

As an example of such versatility, Hempel collaborated very closely in the construction of the Institute of Molecular Medicine Príncipe de Asturias.

The building contractor was seeking a paint manufacturer that could offer solutions to cover the protection and decoration requirements for all units of the more than $32,000 \text{ m}^2$ that comprise the building.

At the Institute of Molecular Medicine, protection and decoration was required for both the outside and inside walls and corridors, as well as the workshops, warehouses, the animal house and car-park.

A Hempalin primer was chosen for the metal surfaces on outside walls, given its flexibility and great suitability in moderately corrosive environments.

A sealer undercoat and enamel paint with excellent strength, gloss and colour stability, namely Hempel's Polyenamel, were chosen for the building's impressive foyer.

The entire 4,700 m² area of the animal house was also painted, with special importance being given to the floor, on which a Hempafloor system specially earmarked for hospitals, laboratories and warehouses was used.

Finally, a Hempafloor 160 system comprising of Hempadur Sealer SF, Hempadur Sealer SF with silica and Hempadur Finish, was applied to the floor of the parking area. This system was chosen because of its high resistance to abrasion and chemical spillage, its anti-vulcanised rubber protection (easy removal of tyre marks), and its great colour stability.

Safeguarding our cargo

Every fifth cargo container in the world is protected from corrosion by a Hempel coating, both inside and out.

1/5

Hempels provides newbuild and repair coatings for containers. 1/5 of cargo containers are coated with our products, making us one of the world's leading suppliers in the containers market.

Did you know ...?

Our coating advisors can visit your production lines to help you streamline application processes and lower costs.

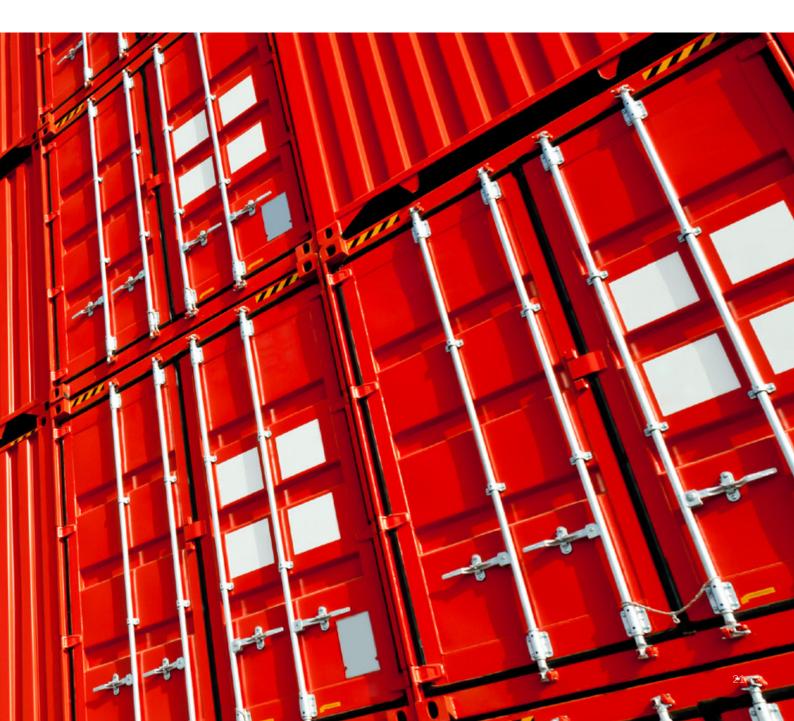
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Hempel has developed the world's first waterborne three-coat system for containers. It helps manufacturers protect their cargo containers from corrosion as well as the environment.

Container

Shipping is by far the most energy and costefficient way of transporting cargo. Every day, millions of tons of goods – from cars and cranes to bananas and beans – are transported by container from the factories and fields where they are produced to our local markets and shops. Every one of these containers needs to be protected from bad weather, rough treatment and potentially damaging cargos.

As one of the world's leading suppliers of container coatings, we provide new build and repair coatings for every type of container. All our solutions are designed to extend container lifetimes, reduce maintenance costs and improve application efficiency. We also visit our customers' production lines to help them streamline application processes and lower costs. Container production is constantly improving, so we work with our customers to develop new solutions that meet changing industry needs. This includes developing the world's first waterborne three-coat system for containers, which helps manufacturers protect both their containers and the environment.



Under wind and sail

With a full range of products for pleasure and racing vessels, we help sailing enthusiasts keep sailing smoothly.



For a hundred years, we have transferred our expertise in the marine industry to pleasure yachts, racing boats and sailing vessels. As a result, sailing enthusiasts and yacht makers can find a Hempel product for every boat care task and area of their vessel.

For professional yacht makers, we provide a full range of advanced coatings, from durable topcoats that will look good for years to advanced hull coatings that improve a yacht's hydrodynamics, reduce fuel consumption and increase sailing speeds. For sailing enthusiasts, we provide a complete range of boat care products to make maintenance simple. Our yacht coatings and boat care products are produced to the highest criteria and meet all environmental and legislation standards. All are designed to be easy to use – so you spend less time working on your vessel and more time on the open water.

Simple the best

Our goal is to help take the complexity out of painting and maintenance work, and provide solutions that are quite simply the best on the market.

Any boat care task

We know how to paint, protect and clean any kind of vessel, and can provide a proven product for every boat paint project.

Tried & tested

Our products are tested and developed to the highest criteria. They meet all environmental standards and comply with legislation.



Comprehensive overhaul of a traditional wooden sailboat

The project involves the complete restoration of a traditional wooden sailboat measuring 12 metres in length.

This restoration work focuses on the underwater hull, the sides and the hardwood decking.

A classic wooden sailboat should be seen as a jewel navigating the seas that needs to be protected and have its natural beauty enhanced.

The restoration operations proposed must take into account the aggressiveness of the environment, which combines water, salt, wind and sun, as well as the fragility of the wood, the aesthetics of the items to be used, and their durability.

It is equally important to achieve the right colour and gloss finish as well as maintaining their properties over long periods of time.

The coating solutions adopted for the sides and decking of the sailboat use the latest technology in single-component topcoats and varnishes, that is to say, modified alkyd resins, which are present in Hempel's Brilliant Gloss and Dura Gloss Varnish.

A premium self-polishing anti-fouling paint like Mille NCT was chosen for the underwater hull.

Technical Service

600

Our team of more than 600 coating advisors – many of whom are FROSIO/NACE-qualified – provide onsite technical service and support to customers around the world.

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Shifting to a fast-drying two-coat protection system from Hempel can help heavy machinery and prefabricated steel manufacturers increase production speeds by up to 50 per cent.

200 If applied and maintained correctly, most of our protective coatings will last for 20 years or more.

Behind every great coating

Every day, our coating advisors and engineers can be found on construction sites, drydock facilities and production lines, helping our customers improve application quality and lower costs.



In a competitive environment, success requires more than just technology. Companies also need people with the right skills, knowledge, experience and attitude to turn that technology into a value-adding solution. This is where we make a real difference. Our highly qualified coating advisors work with customers around the globe to ensure that coatings are applied as efficiently as possible, and will perform as promised.

More than 90 per cent of premature coating failures are caused by defective surface preparation, improper application or a combination of the two, so we provide our customers with advice and support during the entire application process. From surface preparation through to final curing and touchup, we help ensure that every coating is applied correctly, so our customers get the optimum protection for the longest period of time.

As coating application can be a significant source of bottlenecks on many projects, we also help customers streamline application, either at their production line or onsite. By analysing the entire process, we help reduce application times, drying times and waste – to increase production speeds and lower costs.

Our services:

- Pre-sales advice
- Onsite support
- Manufacturing optimisation
- Coating status and repair reports
- Customised
 maintenance support
- Inspections
- Training

10

Through their work with Hempel, every Hempel employee supports the education of 10 children in need.

2000

The Hempel Foundation has been working with the Technical University of Denmark since 2000 to create an international research environment for the education of highly skilled engineers and researchers.

55,000

The Hempel Foundation helps more than 55,000 underprivileged children receive a better education, giving them the chance to build a better future for themselves, their families and society.

A revolutionary idea

Our founder J.C. Hempel believed that a company has a responsibility to its staff, the environment and society. The company he founded has changed considerably over the last 100 years, but his guiding principles remain at the heart of everything we do.

Ready-mixed marine paints were virtually unheard of in 1915, when J.C. Hempel began selling them to the ships that plied their trade in and around Copenhagen in Denmark. It was a humble beginning – J.C. Hempel delivered the first order himself, cycling through town with the drums of paint dangling from his handlebars – but the company he founded would go on to become one of the world's best-known coatings suppliers.



Hempel's founder J.C. Hempel

A unique owner

In order to provide a sound economic base for the continued operations of the Hempel Group, J.C. Hempel created the Hempel Foundation in 1948. He transferred all his shares to it, essentially putting ownership of the company into the hands of the employees. The Hempel Foundation remains the sole owner of the Hempel Group today.

As a commercial foundation, the Hempel Foundation's primary purpose is to provide and maintain a solid economic base for the Hempel Group. The Foundation's secondary purpose is a social and charitable one: to support cultural, social, humanitarian, scientific and artistic purposes around the globe, with special focus on the education of children in need and research into environmentally sustainable solutions within the coatings industry.

Education of children in need

Providing universal quality education is one of the Sustainable Development Goals conceived by the United Nations in 2015. The Hempel Foundation has joined with others to make this goal a reality. The Foundation helps more than 55,000 underprivileged children receive a better education so they can build a better future for themselves and their families. This means that through their work with Hempel, every Hempel employee supports the education of 10 children in need.

Research into environmentally sustainable solutions

The world needs sustainable new technology. Through a long-term partnership with the Technical University of Denmark, the Hempel Foundation helps drive research into, and raise awareness of, environmentally sustainable technologies for the coatings industry.

At the heart of everything we do

Since 1915, Hempel has proven that good business practice and care for people, the environment and society can go hand-in-hand.

We believe that as a global company, we have a responsibility to drive sustainable business practices around the globe. This is an essential aspect of our commitment to corporate responsibility. We do more than just follow legislation and standards. We do what we believe is best for people, the environment and society, and we extend that through our own high standards and policies to all our offices, suppliers and distributors, wherever they are in the world.

Environment

Our products prolong the service life of structures and equipment, and so help reduce their overall environmental impact. But we believe we can do even more, and put environmental sustainability at the heart of everything we do. We focus on developing products that help our customers reduce energy, waste and emissions. At the same time, we carefully monitor our own operations and continually strive to reduce energy, waste and emissions from our own work.

As a company that handles chemicals, we have an added responsibility towards the environment. We use the latest safety and environmental equipment in our factories, and are constantly working to reduce the amount of VOC and other dangerous substances in our coatings. Our European product assortment is already lead-free and we are committed to eliminating lead from our products across the globe.

Society

As a global producer, we have the opportunity to promote good working practices throughout a supply chain that stretches beyond our own operations. We only want to work with suppliers who share our ethical standards, and we audit selected raw material suppliers each year to ensure our raw materials come from responsible sources.

We also believe that corporate responsibility should be driven by our employees. We support local initiatives in the communities where we work and encourage our employees to give time to good causes close to them. This includes giving our employees the chance to volunteer at educational projects supported by the Hempel Foundation.

People

Wherever you meet us – whether you are a customer, business partner, supplier or new employee – you know you are dealing with a company that has people at its heart. Our people are our most important asset. They come from many different countries and walks of life, and bring many different skills and viewpoints to our work. We believe that this diversity is key to our business success.

We do all we can to create an inclusive and supportive work environment where everyone can succeed and develop. Hempel Academy provides our employees with access to regular education and training, and everyone at Hempel is encouraged to believe that learning and personal development are lifelong skills.

Good to know

We are committed to implementing the United Nations' Guiding Principles on Business and Human Rights.

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5 Ice

We were the first company to develop a two-coat system for wind turbine towers. Compared to equivalent three-coat solutions, the system reduces energy consumption, emissions and waste during application by around 30 per cent.

4,000

Hempel Academy delivers training – including Code of Conduct instruction leadership development and safety courses – to approximately 4,000 employees a year. The Academy also provides onsite technical training for customers. Since 1915 Hempel has been a world-leading coatings specialist, providing protection and inspiration to the world around us. Today we have over 5,500 people in 80 countries delivering trusted solutions in the protective, decorative, marine, container, industrial and yacht markets. This includes many recognised brands like Crown Paints, Schaepman and Jones-Blair.

Hempel is proudly owned by the Hempel Foundation, which supports cultural, humanitarian and scientific causes across the world.

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