

# Protecting our customers' most valuable assets

Our commitment to  
trusted solutions



Hempel's coatings protect our customers' most valuable assets, demanding that we deliver the market's most trusted solutions. Hempel does not claim to be the most trusted or assume we have our customers' trust. Instead, we recognise that it is up to us to earn this trust every day through the superior performance of our products, our expert service and support, and the behaviors of each and every member of our Hempel family.

Trust is earned by connecting to our customers to better understand their needs. It is earned by constantly challenging ourselves to push the boundaries of performance and protection. It is earned by committing to improving the environmental footprint of our solutions with no compromise on performance. It is earned by inspiring confidence through our invaluable technical advice on coating products and processes.

Hempel has been earning trust for more than 100 years.

# Painting our world stronger

From bridges and boats to power stations and homes, our coatings can be found around the globe, helping make our world safer, stronger, longer lasting and more beautiful.

As a world-leading supplier of trusted coating solutions, we work in the protective, marine, decorative, container, and yacht industries. Across the globe, our coatings protect structures and equipment from corrosion. They extend asset lifetimes, reduce maintenance costs and bring colour to our homes and places of work.

As guardians of our customers' most valuable assets, we work closely with our customers on every project, large or small. We are there every step of the way, offering advice, support and inspiration – and solutions that provide superior protection and performance.

We never stand still. We are constantly innovating, always looking for new ways to add value to our customers' businesses: making production processes cleaner and faster, reducing energy consumption, improving environmental efficiency, and further driving down maintenance costs.

We come from almost every corner of the world and speak many languages. We have R&D centres and production units across the globe. We have a broad range of expertise and work in almost every area of business. But wherever we work and whatever we do, we always make sure our customers enjoy the renowned Hempel quality and service.

**2.2 trillion**

According to the World Corrosion Organisation, the estimated direct cost of corrosion worldwide is around USD 2.2 trillion a year. Applying currently available corrosion control technology could save the world's economies up to USD 360 billion a year.

**750**

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

**20**

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

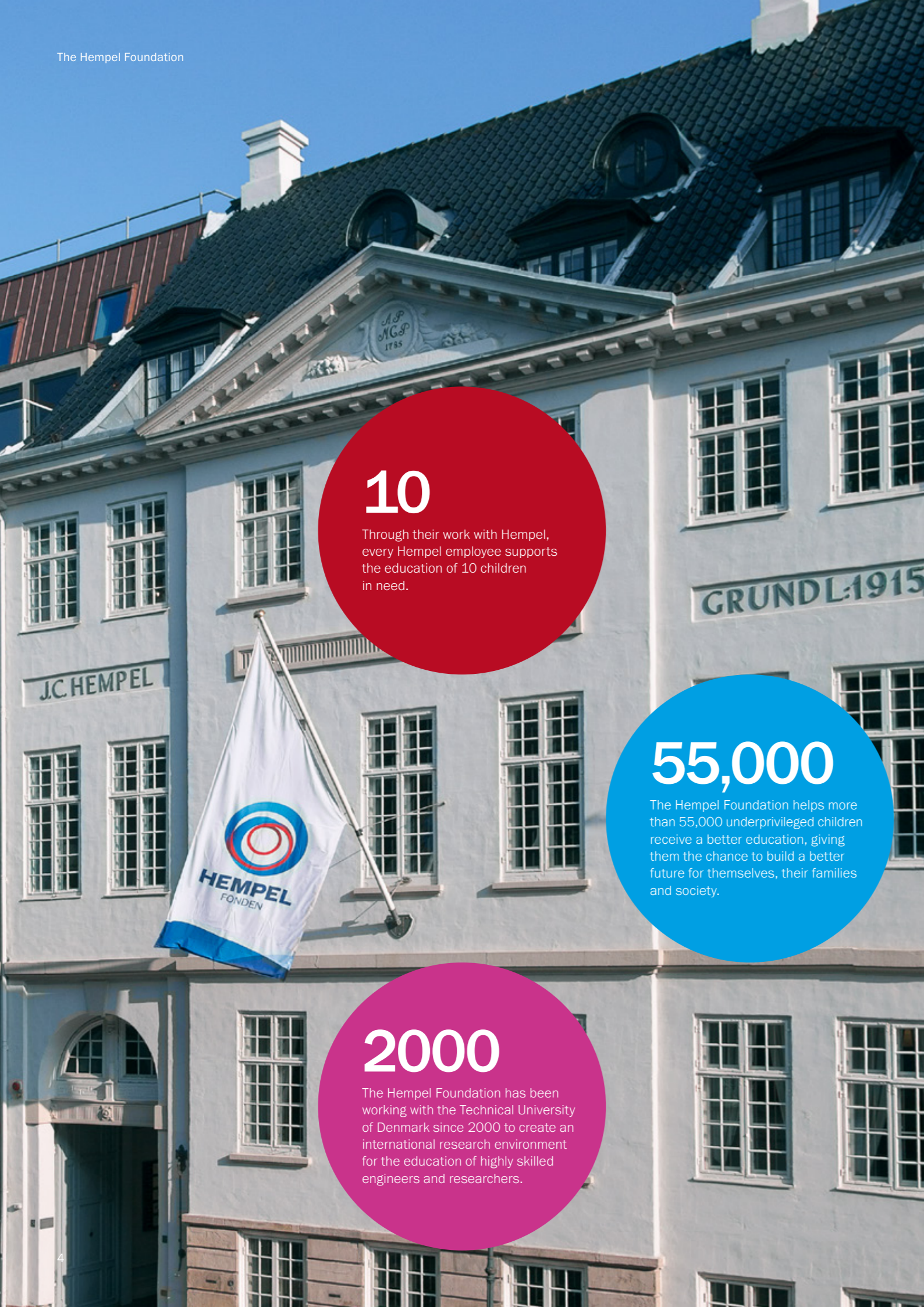
**24**

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

**384 million**

Without special coatings on vessel hulls, says the Low Carbon Shipping Consortium, the shipping industry would pump an additional 384 million tons of CO<sub>2</sub> and 3.6 million tons of sulphur dioxide into the atmosphere each year.





10

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

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.

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.

# Dedicated to making a difference

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.



### 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.

## Liquid engineering

We are constantly innovating, always looking for new ways to add value to our customers' businesses.

At Hempel, innovation starts with the customer. We partner with our customers to ensure we truly understand their needs and then work with them to develop and test new solutions and technologies. In this way, we develop solutions that address our customers' specific business requirements, both today and in the future.

At the heart of this work is our global R&D organisation, a network of R&D centres around the globe. Our highly skilled R&D teams combine advanced chemistry and customer insight to ensure our solutions are tailored to business requirements and meet both local and global standards.

Innovation requires inspiration and alternative thinking. We partner with suppliers, universities and other research teams in the pursuit of new ways of working with coatings, always looking for cutting-edge solutions that improve our customers' performance – by extending asset lifetimes, improving efficiency, cutting costs or reducing emissions.

This approach to innovation has enabled us to introduce many market-leading and award-winning solutions, from high performance activated zinc anti-corrosives to cutting-edge fouling defence hull coatings.

# 15

Having 15 R&D facilities across the globe allows us to work closely with our customers. Developing solutions specifically tailored for the environments in which they operate.

# 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.

# 30

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.

Royal Danish Opera House,  
Copenhagen, Denmark. Given to  
the city by A. P. Møller and Chastine  
McKinney Møller's Foundation for  
General Purposes. Designed by  
architect Henning Larsen, with  
steel construction painted by Hempel.



# 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 to their businesses.



Bory Mall, Bratislava, Slovakia. By architect Massimiliano Fuksas, with steel construction painted by Hempel.



# 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.

## Our expertise covers many industries:

- Conventional power generation, including coal and gas
- Renewable energy, including hydro power, and offshore and onshore wind power
- Upstream and downstream oil & gas
- Civil structures, sports stadia and commercial buildings
- General construction
- Transport centres and bridges
- Cranes and port machinery
- Rail cars
- Heavy-duty equipment



## 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 anti-corrosion protection – barrier, inhibitor and galvanic – to significantly improve performance compared to zinc epoxies without activated zinc technology.

“We are fully aware of the benefits offered by activated zinc technology, hence our decision to choose it over a conventional zinc epoxy.”

Anil Kumar, Project Manager, Elco



## The **ultimate** anti-corrosive performance

Oil and gas facilities are exposed to some of the harshest conditions on the planet. They need high-performance protective coatings to ensure they can continue to operate for years without significant maintenance stops.

When BP built a major gas processing facility to serve the Khazzan & Makarem gas fields in Oman, leading engineering and fabrication company Elco was drafted into the project. The facility includes structural steel pipe racks, which are exposed to some of the harshest industrial conditions imaginable. Elco needed a protective coating system that will ensure the pipe racks remain corrosion-free – with minimal maintenance and downtime – for years to come.

For the pipework, we specified an activated zinc epoxy primer that has been proven to provide significantly better protection against corrosion than other zinc epoxies on the market. Only around one-third of the zinc in a traditional zinc epoxy has an anti-corrosive effect. Activated zinc technology activates all of the zinc in the coating, without increasing zinc content. This significantly improves the coating's anti-corrosive performance and mechanical strength, while also ensuring the coating remains easy to apply, so customers benefit from a faster coating process and a higher quality finish.

# 1917

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

# 8

Our special coatings for ships' hulls reduce a vessel's fuel consumption and CO<sub>2</sub> 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.

## An energy-efficient 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.

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 seastock for onboard maintenance or a complete suite of coatings for a newbuild, 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 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 CO<sub>2</sub> 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.

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

The Grimaldi Group





The Louvre Abu Dhabi in the United Arab Emirates needed a coating solution that could protect it against corrosive sea salt, sand and heat. The solution was provided by Hempel.

# 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 hard-wearing 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 anti-bacterial 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.

## Our areas of expertise:

- Interior coatings
- Colour choice and interior design
- Façades
- Structural steel
- Solutions for green buildings
- Floors
- Specialist solutions for hospitals, schools, etc.

## 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.

## 0

All our decorative products are lead-free, and we are committed to developing sustainable solutions without compromising on quality or performance.



## Improving hospital hygiene

At the Farwaniya Hospital in Kuwait, our coatings are being used to protect the building and improve hygiene for patients and employees.

At the main public hospital in the Al Farwaniyah Governorate of Kuwait, a huge project is underway to improve facilities and service levels. The project includes the construction of three new buildings: a multi-purpose hospital with 955 beds, a physical therapy and dermatology clinic, and a dental clinic and teaching facility. We are supplying coatings for the entire project, from the exterior walls to the car park floors.

Hospitals require anti-bacterial coatings to reduce the risk of cross-infection, so the interiors of the Farwaniya Hospital will use a coating specially formulated to resist bacteria and mould. The exteriors will use a robust coating developed specifically for harsh Middle Eastern climates, and the car parks will use a specialist floor coating system to protect them from wear and tear.

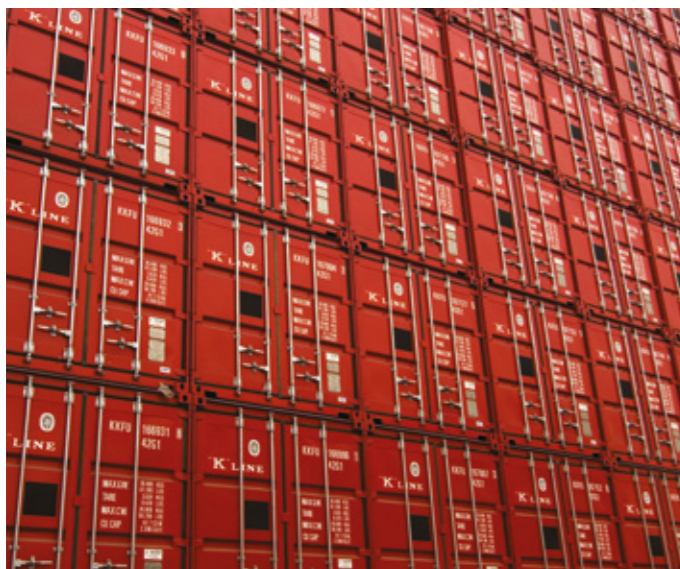
# Safeguarding our cargo

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

Shipping is by far the most energy and cost-efficient 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 newbuild 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 standards and many use low-solvent solutions to reduce any impact on the environment. All are designed to be easy to use – so you spend less time working on your vessel and more time on the open water.





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.

50

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.

20

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 touch-up, 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

# Who **we** are

We come from many countries, speak many languages and work with customers in many industries. But we are all united by our desire to deliver the market's most trusted coatings solutions.

We are a strong and complementary global team, working together to be the best in the coatings business. We each have different backgrounds and bring different skills to the job. But wherever we work, we all share the same Hempel values and way of working.

We know that our world and our customers are always evolving, so we never stand still. We constantly challenge the status quo and our own abilities. We connect closely with customers to ensure we understand their businesses and exact needs. And we try to inspire confidence in the people we work with by always delivering on our promises. But we never lose track of the bigger picture, and are proud to be part of a socially committed company.

