

Infrastructure

Our commitment to the future



Industry leading coatings worldwide

Founded in 1915, Hempel is one of the world's leading manufacturers and suppliers of coating solutions globally.

From civil buildings and sports stadia, to the transportation hubs and bridges that connect us, Hempel's advanced coating solutions can be found protecting surfaces across the globe.

Designed to protect against the extreme conditions of the marine, decorative and protective industries, we offer a comprehensive range of products supported by expert technical services.

All our coatings are proven to be effective against corrosion, and our cellulosic passive fire protection range offers exceptional fire resistance. We're proud to protect and enhance the durability and aesthetics of structures around the world, not only giving their owners peace of mind, but also the millions of people who use them every day.

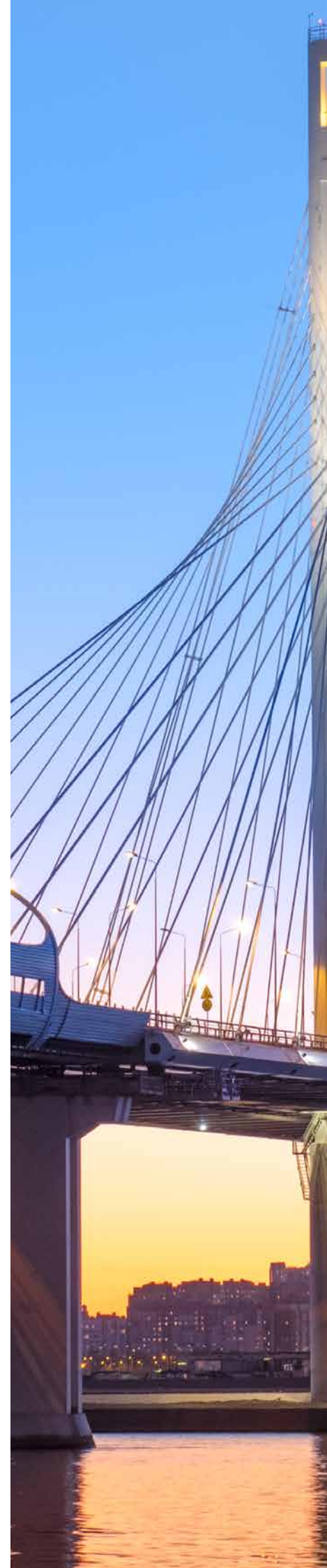
As the demand for infrastructure continues to grow, our invaluable expertise, industry knowledge and innovative solutions enable us to offer an unbeatable service worldwide.

Our commitment to the future

We're not just focused on today either; we believe we have a responsibility to protect future generations through the sustainability of our infrastructure coatings.

Our target is to half greenhouse emissions across our entire value chain by 2030, an initiative approved by Science Based Targets and in line with levels to meet the goals of the Paris Agreement to keep warming to 1.5°C.

By putting sustainability at the very heart of how we do business, we're creating a brighter future for everyone.



From buildings to bridges and beyond

Our coatings solutions cover some of the world's most famous structures. From Vienna International Airport to the Doha Marriott Hotel, from iconic bridges to skyscrapers, the Hempel name is trusted worldwide for superior protection.

High-quality protective coatings are a vital part of keeping any physical and financial asset safer for longer, so we're continually developing new and innovative solutions to meet today's coating application challenges.

Global service

With a network of 28 manufacturing plants and over 150 stock points worldwide, we offer a flexible and convenient service to every one of our customers, wherever they are in the world.

Proven performance

Even in the harshest climates, our range of high-performance protective coatings offer easy application without compromising on durability, protection and finish.

Professional support

Our global teams of experts will advise on the right products, logistics and specifications for effective protection, lasting aesthetic appeal and minimising ongoing maintenance.

Innovative solutions

Our R&D teams are committed to developing even more durable and effective speciality coatings while still meeting our environmental responsibilities.

When you choose Hempel, you know you're in trusted hands.

Meeting industry challenges

Choose a product for performance

Our size and scale means we can match the high volume, stringent quality and complex delivery demands of the global construction industry. Whether it's for steel or concrete, our team will work with you to develop solutions to meet your toughest coating application challenges.

As well as offering exceptional protection against corrosion and fire, we also offer a range of innovative coating solutions to address thermal insulation needs.

Product attributes

- Abrasion and corrosion resistant
- Weather resistant
- Good gloss and colour retention
- Easy to clean and maintain
- Fire protection properties

Choose a partner you can trust

Research and development

At Hempel, we operate 15 global research and development facilities, and can work locally with you to provide the right solution for your project.

With our dedicated Corrosion Centre in Copenhagen and our state-of-the-art PFP centre in Barcelona, we're extremely well placed to understand your most challenging coatings problems and provide solutions that work.

We can also provide technical training and support for the whole life of your project, from initial design to construction and beyond.

Technical training

You can boost your own team's knowledge and skillsets, working with the latest coating technologies and techniques, tailored to meet your specific needs.

Technical services

A choice of service support options are available with over 600 FROSIO/ NACE qualified coatings advisors for complete peace of mind.

From design and specification to quotation and on-site support during application, we can be with you every step of the way.



Striving towards sustainability

Working to shape a brighter future for everyone

We've set an ambitious, yet achievable, target to half greenhouse gas emissions by 2030, a goal which has been approved by the Science Based Targets initiative.

To achieve this, we're refining our operational performance and transforming how we and our value chain operate. Our new framework outlines the steps we're taking to reduce our CO₂ emissions, minimise our waste and move away from hazardous raw materials.

At Hempel, we are turning ambition into action by 'futureproofing' our business

FutureProof

Guided by our core values, FutureProof is our drive towards sustainability. We will continue to centre our efforts and commitments where we can have the biggest impact on performance, products, people and our partners.

Performance

To reduce our footprint as we grow, we've set targets to reduce our emissions, waste and the number of resources we use.

Products

Our products are designed to extend durability, prolong protection and functionality, leading to an extended service life for bridge structures.

We're also working with low volatile organic compounds (VOC), minimising the use of hazardous raw materials and supporting customers beyond compliance with health, safety and environmental (HSE) standards.

Our sustainability tools

- CO₂ report
- LCA life cycle assessment
- EPD
- VOC test reports
- Structural monitoring
- Sustainability scorecard

Coatings fit for green buildings

- LEED
- BREEAM
- DGNB
- CAM (EPD, VOC)
- ENVISION (EPD, CO₂, LCA)
- WELL

Effective solutions for buildings

Protective coatings safeguard structures set in challenging environments. Our world-leading protective coatings provide a resilient barrier that help buildings resist the effects of harsh weather conditions, corrosion and fire.

- Extending the protection for steel structures for longer
- Reducing maintenance
- Enhancing aesthetics
- Meeting the most stringent global standards

Building better living spaces

Our range of high performance protective and intumescent coatings are designed to protect buildings in many ways. No matter what type of structure, our coatings maintain their looks, durability and resilience.

Whether you're specifying for a next generation skyscraper or a classic opera house, our coatings can play a pivotal role in your ongoing maintenance programme by extending the intervals between recoating.

Our coatings ranges for buildings include:

Hempafire and Hempacore

Intumescent coatings range for cellulosic passive fire protection, proven to give you effective, long-lasting results.

Avantguard®

Unique activated zinc technology primers that give structural steel advanced corrosion protection.

Hempaprime Multi 500

A versatile, lower VOC coating, fast drying for increased productivity and a hardwearing finish. Ideal for situations where fast handling and short over-coating times are required.

Hempel's topcoats

Our extensive range of topcoats are designed to be tough with an excellent finish and colour retention. They include high-performance coatings such as Hempel's Pro Acrylic Isocyanate-free solution and the Hempthane range, both designed for durability.



Maison Des Avocats, France protected by Hempel intumescent coatings



Civil structures

Office spaces, museums, hotels and residential complexes; civil structures are designed with people in mind, providing communities with bustling environments where they can thrive.

Our coating solutions can be trusted as part of an ongoing maintenance programme, extending intervals between recoating whilst ensuring optimum safety.

Transportation hubs

Ever smarter infrastructure drives our cities, connects industries and provides safe and secure places for us to live, work and play.

As well as connecting people; airports, train stations and bus terminals keep the world's freight industry moving. Truck terminals, seaports and freight hubs all require specific protective coatings.

Sports stadia, leisure and entertainment venues

Modern sports venues and leisure facilities host a range of sporting and entertainment events, retail and commercial activities for thousands of people at one given time.

These venues use steel and concrete in their construction, with the increasing scale and open aspects of these venues presenting new challenges for protective coatings.

Microelectronics facilities

Hempel's advanced coating solutions provide robust fire protection for microelectronic facilities, ensuring the safety and uninterrupted operation of data centers and semiconductor plants. Our products are specifically designed to safeguard sensitive equipment and critical operations in these essential environments.

Fire Protection ensures building safety

Passive fire protection saves lives and protects assets in the event of a fire.

Structural steelwork is one of the leading materials used in the design of structures around the world. In the event of a fire, unprotected steelwork can lose its integrity and strength in minutes. Applying a thin cellulosic intumescent coating from Hempel ensures that your building, people and assets are protected for longer.

They provide thermal insulation protection to steelwork for a given period of time. This helps the steel retain its load bearing capacity for longer, allowing additional time for building evacuation and emergency response – and giving you peace of mind that your building and assets, and people's lives, are protected.

Hempel's cellulosic intumescent coating portfolio can cover any structural steelwork project.

Our coatings offer the following benefits compared to similar products on the market:

- Increased durability
- Lower application costs
- Higher application efficiency
- Faster process times
- Excellent aesthetic finish

Discover the power of HEET Dynamic

HEET Dynamic is our intumescent coating estimation software that makes complex intumescent coatings estimations simple.

This time saving, easy-to-use engineering service software has been developed by Hempel to give you accurate estimation for intumescent volume calculations on steel sections with just a few clicks.

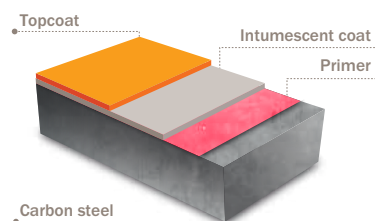


Vienna Airport – Hangar 7 (Austria)
protected by Hempel intumescent coatings

The right solution for every project

Product	Fire resistance (minutes)					Technology / Corrosion category (ISO 12944)	Key product benefits
	30	60	90	120	higher than 120		
Hempacore AQ	●	●	◐			high solids waterbased, up to C2 interior	Very low VOC, market leading DFT's at open sections. On-site applications requiring very low VOC
Hempafire Optima 500	●	●	●	●	◐	high solids waterbased, up to C3 interior	Very low VOC, high build coats, quick recoat/overcoat times. On-site applications requiring very low VOC
Hempafire Optima 510	●	●	●	●	◐	high solids waterbased, up to C3 exterior	Maximises the protection of light steel sections with high Hp/A. high build coats, quick recoat/overcoat times
Hempacore One and FD	●	●	●	●		high solids solvent based, up to C4 exterior	One product solution for all fire ratings and profiles with wide coverage. On-site and in-shop applications
Hempafire Pro 315 and FD	●	●	◐			high solids solvent based, up to C4 exterior	Market leading DFT's for R30 & R60. Most sections protected in one coat. On-site and in-shop applications
Hempafire Pro 320 and FD	●	●	◐			high solids solvent based, up to C4 exterior	Specialised product to maximise the protection of 4-sided open sections with even further reduced DFTs
Hempafire Pro 400 and FD	●	●	●	◐		high solids solvent based, up to C4 exterior	Market leading DFT's for R90 and R120. One product solution for all steel sections. On site and in-shop applications
Hempafire Extreme 550	●	●	●	●	◐	100% solid epoxy, up to C5 exterior	High durability to weather, chemicals and mechanical damages. Market leading DFTs from R30 to R120. In-stop applications

Recommended system



Key

- = full coverage
- ◐ = partial coverage
- DFT – Dry film thickness
- FD – Fast dry
- Hp/A – Steel section factor

Visit hempel.com to find out more about our intumescent passive fire protection (PFP) coatings

Effective Solutions for Bridges

Bridges span land and water, showcasing structures that are both breath-taking and functional.

From the impressive First Kuwait Ring Road to the breath-taking Shenzhen-Zhongshan Bridge in China, concrete and steel provide a robust and striking structure. Coastal or inland, effective coatings are required to provide optimum protection against the elements, assuring, and even extending the lifespan of the structure.

To protect bridge structures effectively, our coatings are designed withstand the harsh corrosive effects of industry and nature alike. Since tough climates require tough protection our coatings systems offer a reliable defence, not only to the challenges of weather and climate, but also to pollution.

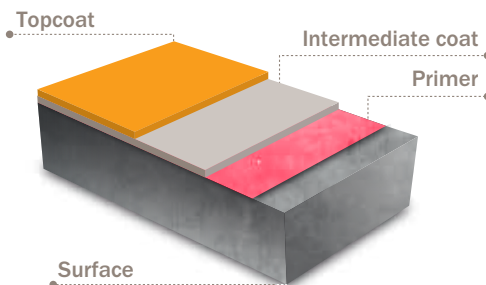
Our globally certified coatings offer more than proven protection against corrosion, they provide efficient and effective application with the addition of long-lasting colour fastness.

Whatever the challenge of your project, we have the right corrosion protection to meet your specific needs and offer ongoing technical support that makes a real difference to you.



Recommended system for steel bridges

New construction and maintenance

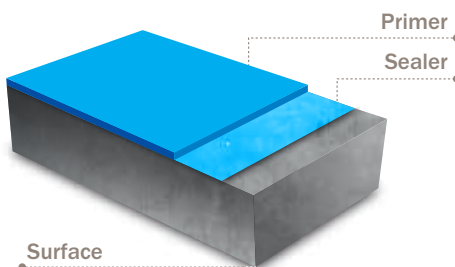


Suitable for carbon steel, galvanized steel, aluminium, weathered steel and any other metallic surface

Product type	Recommended Use
Epoxy primers and zinc-rich primers	Primer for long-term protection of steel in severely corrosive environments including offshore
Epoxy intermediate	Intermediate coat in high performance coating systems where fast handling and short overcoating times are required
Polyurethane/ Polysiloxane topcoats	They protect the underlying coats while providing mechanical resistance and anticorrosion properties. Typically available in many colours and levels of glossiness

Recommended system for concrete bridges

New construction and maintenance



A painting system for the protection of concrete structures from carbonation typically consists of 1-3 layers depending on the function required. Typically, before applying the painting cycle, an impregnating agent is applied which has the task of closing the pores, saturating the surfaces and ensuring an optimal substrate for the adhesion of subsequent layers.

Protecting steel structures from corrosion

Avantguard®

Avantguard® products contain zinc levels of 65%-85%, giving you superior protection, no matter how corrosive your environment. Our industry-changing patented Avantguard® technology helps your coating system last up to 50% longer and protects your assets in even the toughest locations.

Lower maintenance costs

Extended corrosion protection allows you to perform maintenance less often, reducing maintenance needs by up to 30% throughout the lifecycle of your asset. In addition, the special two-coat Avantguard® systems will instantly reduce your maintenance costs, through the reduced number of coats needed to complete the project.

Reduced application costs

Avantguard® is easy to apply and fast drying, even in high temperatures and humidity, so you'll save up to 30% on the time needed to apply it. The unique patented technology with three activating components gives you the option to reduce the number of coats or coating thickness. Additionally, its self-healing capabilities also means your coating system will require less rework.

Longer corrosion protection

Give your assets a longer life, even in the toughest conditions. Avantguard® is proven to deliver superior corrosion protection with extended durability, so your coating system lasts up to 50% longer.

Avantguard 550

An activated zinc epoxy primer with a zinc content that complies with Level 3 in SSPC Paint 20. Provides excellent galvanic corrosion protection in very high corrosivity environments (up to C5).

Avantguard 750

An activated zinc-rich epoxy primer according to ISO 12944 Part 5 that complies with Level 2 in SSPC Paint 20. Ideal for a range of corrosivity environments, including offshore (up to CX).

Avantguard 770

An activated zinc-rich epoxy primer according to ISO 12944 Part 5 that complies with Level 2 in SSPC Paint 20. Superior adhesive and anti-corrosive properties ensure extended durability in a range of environments up to CX.

Avantguard 860

An activated zinc-rich epoxy primer that complies with ISO 12944 Part 5 and Level 1 Type 2 in SSPC Paint 20. Ideal for when the best corrosion protection is needed in highly corrosive environments.

Our solutions in action

First Ring Road, Kuwait

Using a network of tunnels and elevated roads, the first phase of the First Kuwait Ring Road project will significantly improve access to downtown Kuwait City.

The Ring Road is coated with over 80,000 litres of Contex EM, to provide exceptional flexibility, excellent crack bridging and anti-carbonation properties.

Products

Contex EM 58600



Maison de l'Ordre des Avocats, Paris

Designed with glass façade and a glossy metal exoskeleton, this modern building benefits from the proven passive fire protection of our Hempafire Pro 315 coating system, enabling the steel to maintain its load-bearing capacity for up to 60 minutes during a fire.

EN 13501-2 compliant with exceptionally low loadings, the significantly lower dry film thickness results in reduced paint consumption, reduced application time and lower project costs.

Products

Hempadur Avantguard 750

Hempafire Pro 315

Hempathane HS 55610



Railway Bridges, Romania

The Pan-European Corridor IV is one of the most important transport corridors in Europe. Spanning nine countries, the rail line crosses many bridges. These are protected, in part, by our advanced coating system that uses two high performance coatings at 40% lower DFT than equivalent solutions. The system meets ISO12944-6:2018 for C5-High environments.

Products

Hempadur Avantguard 750

Hempathane HS 55610



Our solutions in action

Arena Fonte Nova Stadium, Salvador da Bahia, Brazil

Arena Fonte Nova in Salvador da Bahia, is coated with 40,000 litres of Hempel and was awarded the 2013 European Steel Design Award by ECCS. The huge metal structures were made and coated in Portugal, before being shipped to Brazil and erected on site. Our systems were chosen to resist the corrosive salty ocean crossing, hard knocks that happen during transportation and protect against the Brazilian climate for many years to come.



Products

Hempadur Zinc 17360

Hempadur Fast Dry 15560

Hempathane HS 55610

Cascina Merlata, Milan, Italy

Milan's latest shopping centre blends modern design with functionality. The stunning structure is coated with Hempafire Pro 315 to safeguard its innovative design, providing robust fire protection for the structural steel elements.

Known for its efficiency and compliance with stringent safety standards, Hempafire Pro 315 ensures that the steel framework maintains its integrity during a fire, offering up to 90 minutes of protection. With reduced paint consumption and faster application, it delivers long-term durability and cost savings.



Products

Hempadur Fast Dry 17410

Hempafire Pro 315

Hempathane Topcoat 55210

The Louvre Museum, Abu Dhabi, United Arab Emirates

The Louvre Abu Dhabi, designed by Pritzker Prize-winning architect Jean Nouvel, combines modern architecture with inspiration drawn from the region's traditions. A universal museum in which all cultures are brought together. 8,000 tonnes of steelwork form the domed roof and are protected against the corrosive salts from the sea of the Persian Gulf and the natural climate of Saadiyat Island by Hempel's high-performance coatings.



Products

Hempel's Galvosil 15700

Hempadur Mastik 45881

Hempathane 55910



Jordal Amfi stadium, Norway Protected by Hempel intumescent coatings

Protecting infrastructure all around the world

- **Act 1 and Act 2 Towers**, Dubai, UAE
- **Arena Fonta Nova Stadium**, Brazil
- **Arena Torun**, Poland
- **Assima Tower**, Kuwait
- **Birmingham Hospital**, UK
- **Cascina Merlata**, Milan, Italy
- **City Square House**, Manchester, UK
- **Colt Data Centre**, Mumbai, India
- **Doha Marriott Hotel**, Qatar
- **Dubrovnik Airport**, Croatia
- **Duqm Airport**, Oman
- **Evangelismos Athens Hospital**, Greece
- **Fire Station – San José**, Costa Rica
- **First Ring Road**, Kuwait
- **Jordal Amfi Ice Hockey Stadium**, Norway
- **Khoula Hospital**, Oman
- **La Samaritaine Renovation**, France
- **Maison de l'Ordre des Avocats**, France
- **Park of Poland – Wręcza**, Poland
- **Porsche Centre Hamburg**, Germany
- **Railway Bridges**, Romania
- **Reverse Osmosis Building – Khobar**, Kingdom of Saudi Arabia
- **Sakhir Conference Hall**, Bahrain
- **Santiago Bernabeu Stadium**, Barcelona, Spain
- **Schiphol Airport New Pier**, The Netherlands
- **Shenzhen-Zhongshan Bridge**, China
- **The Louvre Museum**, UAE
- **Torre Reforma**, Mexico
- **Václav Havel Airport Prague**, Czech Republic
- **Vienna Airport – Hangar 7**, Austria
- **Vigo Railway Station**, Spain
- **Villareal Football Stadium**, Spain
- **Volkswagen Production Hall**, Slovakia
- **Wellington Place**, Leeds, UK
- **100 Fetter Lane**, London, UK

As a world-leading supplier of trusted coating solutions, Hempel is a global company with strong values, working with customers in the decorative, marine, infrastructure and energy industries. Hempel factories, R&D centres and stock points are established in every region.

Across the globe, Hempel's coatings protect surfaces, structures and equipment. They extend asset lifetimes, reduce maintenance costs and make homes and workplaces safer and more colourful. Hempel was founded in Copenhagen, Denmark in 1915. It is proudly owned by the Hempel Foundation, which ensures a solid economic base for the Hempel Group and supports cultural, social, humanitarian and scientific purposes around the world.

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