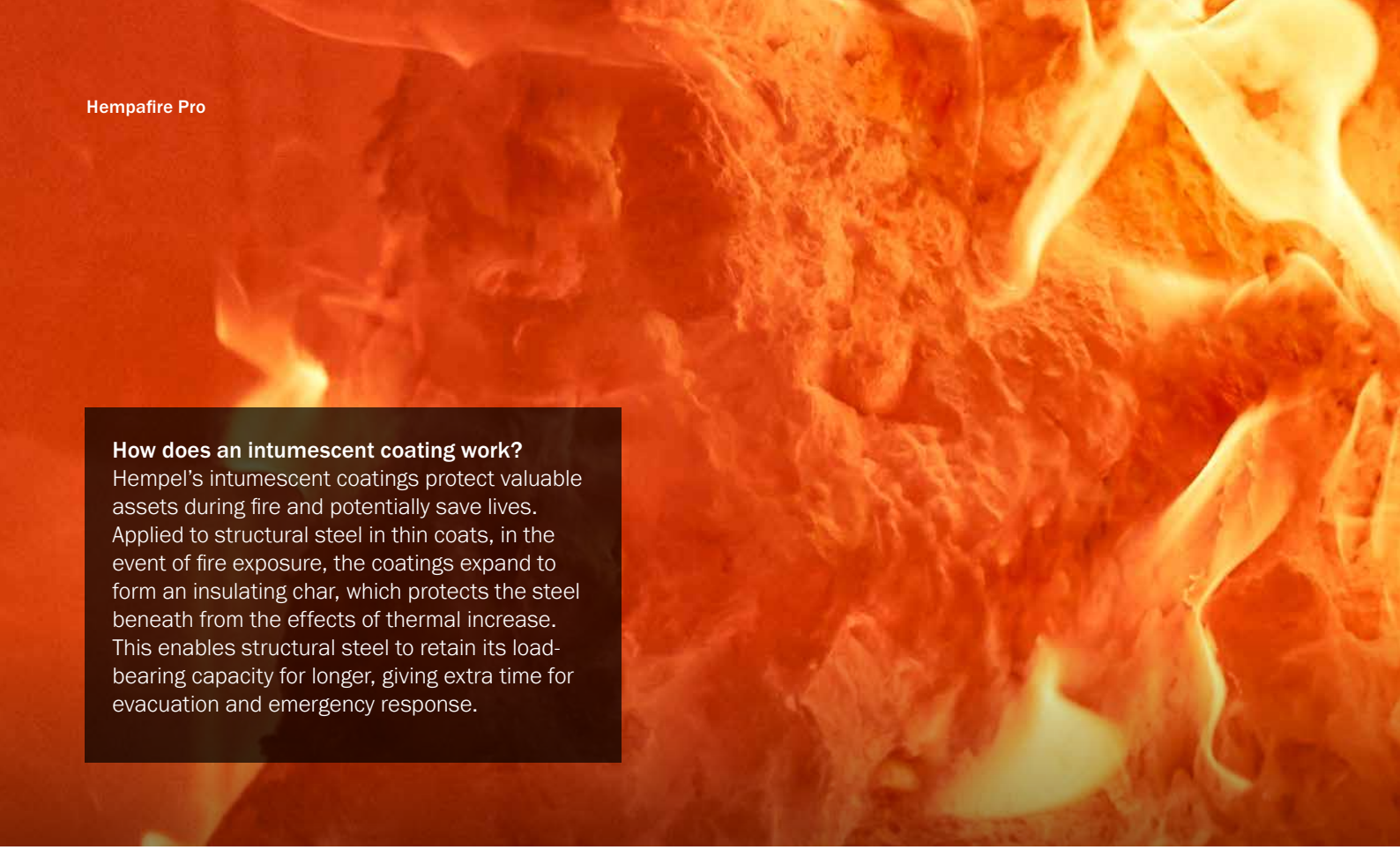
HEMPEL
Trust is earned

# Hempafire Pro

Highly efficient coating solutions
for protection against cellulosic fire



**How does an intumescent coating work?**
Hempel's intumescent coatings protect valuable assets during fire and potentially save lives. Applied to structural steel in thin coats, in the event of fire exposure, the coatings expand to form an insulating char, which protects the steel beneath from the effects of thermal increase. This enables structural steel to retain its load-bearing capacity for longer, giving extra time for evacuation and emergency response.

# Introducing our Hempafire Pro range

Proven passive fire protection coatings, with lower loadings and higher application efficiency.

**Our passive fire protection products, Hempafire Pro 315, Hempafire Pro 320 and Hempafire Pro 400, have been developed to maintain the stability of steel structures in the event of a fire.**

Hempafire Pro range has been independently certified for both I sections and hollow sections and can be used on most common steel profile, including cellular beams.

They have been optimised to provide cellulosic fire protection for the following time periods:

| Product | Best performance at | Tested up to |
|---|---|---|
| **Hempafire Pro 315** | 30 and 60 min | 90 min |
| **Hempafire Pro 320** | 30 and 60 min | 90 min |
| **Hempafire Pro 400** | 90 min | 120 min |

The Hempafire Pro range dries to a smooth, aesthetically pleasing finish. Used with a primer as part of a two-coat system, they provide both fire protection and corrosion protection in interior semi exposed conditions (Type Y or C2). When combined with a primer and topcoat, they also offer excellent long-term protection in outdoor conditions (Type X and C4 environments) – making an ideal choice for a wide range of applications.

Recognising that your business requires more than just high-performance protection, the Hempafire Pro product range is meticulously engineered to enhance the efficiency of your project at every stage, from initial specification to the completion of application.


These products are both available in two versions – standard and fast drying. Please contact your local sales representative to learn which product is best for your project and environmental conditions.

Certifications:
- BS 476 - 20/21
- EN-13381-8
- EN-13381-9 (Cellular Beams)
- EN-13381-10 (Tension Rods)

**Cost savings** with highly competitive loadings

**Increase productivity** with less application

**Gain optimum results** effortlessly

**Sustainability gains** with reduced consumption

# Cost efficiency, without compromise

Hempafire Pro 315, Hempafire Pro 320 and Hempafire Pro 400 are cost-effective solutions for priceless safety in the event of cellulosic fire.

**When it comes to project efficiency, our Hempafire Pro range is hard to beat.**

Thanks to the efficient loadings, you require lower dry film thicknesses on most steel profiles, reducing paint consumption compared to similar products. The lower film thicknesses also mean shorter drying times – giving you faster application, with less waste, fewer resources and lower costs.

Due to the lower film thicknesses required, the coating also achieves better mechanical characteristics faster, reducing the risk of damage during handling and transportation to lower your repair costs.

**Very competitive low loadings mean:**

- lower DFTs reducing paint consumption and drying times
- lower thickness and less coats to apply, less labour costs
- Reduced application and touch ups

**Cost savings** with highly competitive loadings

Maison Des Avocats, France
protected by Hempel intumescent coatings

# One solution up to the challenge of fire protection

**Gain optimum results** effortlessly

Excellent application properties not only reduce complexity and problems with coating, but also speed up operations.


Schiphol Airport - New Pier (The Netherlands) protected by Hempel intumescent coatings

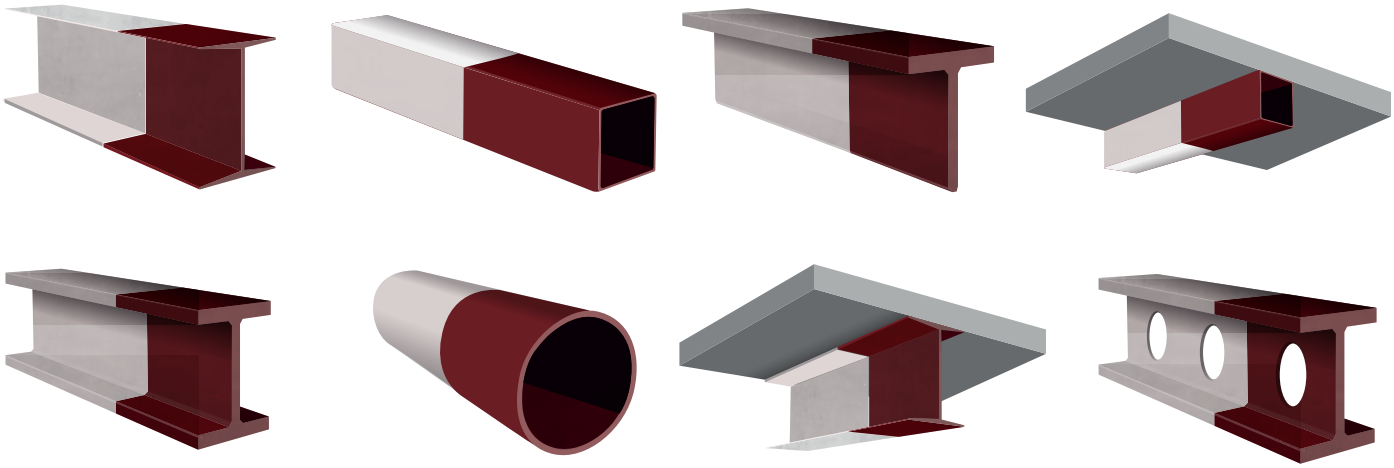
**Made up of multiple coatings for different steel profiles, fire protection can be complex – but with Hempafire Pro 315, Hempafire Pro 320 and Hempafire Pro 400, it no longer has to be.**

Thanks to Hempafire Pro's very low loadings, you require thinner dry film thicknesses on most steel profiles, significantly reducing paint consumption and waste compared to similar products. As a result, you will lower stock requirements and simplify application, logistics and specification processes.

**Reduced project complexity for better application results**

- Easier processes during project planning and execution
- Versatile and applicator-friendly coating - quick and easy to apply
- Extra simplicity reduces the risk of incorrect application
- Performs exceptionally well at high film thicknesses, without sagging
- Can be used with most standard 1K spray equipment (eg. pumps 40:1 ratio)

## Open (I) sections, circular and rectangular hollow sections and cellular beams

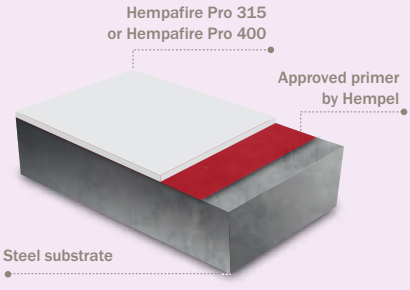


## Exposure conditions during service life / corrosion environments

**Semi exposed Type Y (EAD 350402)**

Two-coat system

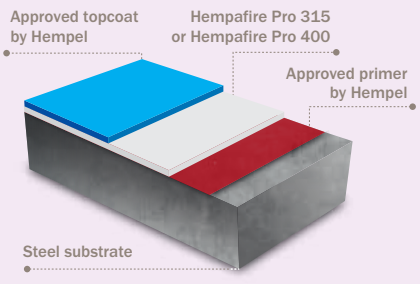
As a part of system without topcoat




**Interior C2-High (ISO 12944)**

Three-coat system

As a part of system with an approved Acrylic topcoat

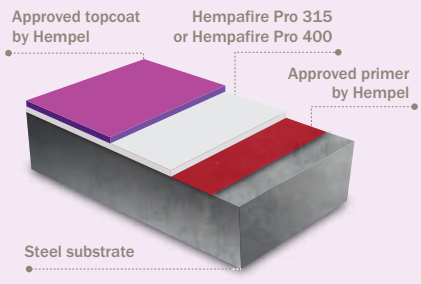



**Exterior C3-High (ISO 12944)**

**Exterior Type X (EAD 350402)**

Three-coat system

As a part of system with an approved PU topcoat




**Exterior C4-High (ISO 12944)**

# Because your time and effort are valuable

Get more done in less time with Hempafire Pro, the perfect choice for higher productivity, reduced labour and faster job completion.

**Due to their efficient loadings, Hempafire Pro 315, Hempafire Pro 320 and Hempafire Pro 400, deliver excellent fire protection with lower film thicknesses, which helps reduce application and drying times.**

As a result, your coated steel section can be handled or overcoated sooner, reducing bottlenecks and increasing throughput and efficiency for off-site applications in the paint shop.

As high-build coatings, the Hempafire Pro range can also be applied up to 1,600 microns DFT in one coat. This means fewer coats are required, which results in lower on-site labour costs and faster project completion times, allowing other trades to continue operating upon completion of coatings application.

**In-shop applications**
Lower DFT and less coats to dry mean the section can be handled or overcoated more quickly - increasing throughput.

**On-site applications**
Less coats to apply thanks to less intumescent required due to low loadings and high build qualities of the product.

**Faster throughput and reduced bottlenecks in the application step**
- Quicker drying time increases off-site and in-shop application efficiency
- Most steel sections protected in one coat
- Less damages due to very good mechanical properties achieved faster

"Due to the lower loadings of Hempafire Pro, we can now use less paint, resulting in quicker drying times. This is a big advantage to our business as it will improve our delivery times, reduce project delays and maximise our overall productivity and throughput."

**Chief Executive Officer, Nanosteel, SA., Portugal**

# Increase productivity with less application

Even further productivity gains can be achieved by using approved Hempel fast drying primers and topcoats. Contact your technical representative to get the best specification for your project.

Jordal Amfi stadium, Norway
Protected by Hempel intumescent coatings

# Improving sustainability and efficiency for the future

Each advanced fire protection coating is designed to lower your environmental impact, whilst improving your application speed and efficiency through lower loadings and faster drying times.

# Engineered with applicators in mind, as well as the environment

**Sustainability gains** with reduced consumption

Hempafire Pro 315, Hempafire Pro 320 and Hempafire Pro 400 are quick and easy to apply, giving you outstanding application properties and compatibility with your processes.

**Each coating goes on evenly and dries with a visually attractive finish. In addition, reduced dust formation means you need to spend less time on masking.**

For on-site applications, the Hempafire Pro range can be applied up to 1,600 microns in one coat without sagging. This means fewer coats are required, which results in lower on-site labour costs and faster project completion times, allowing other trades to continue operating upon completion of coatings application.

**Increased sustainability and efficiency gains**
The Hempafire Pro range boasts of very low DFTs required to protect steel sections, resulting in reduced amount of paint and application needed to protect the structures. With lower paint consumption and reduced application, this results in decreased environmental impact.

You can be assured with Hempel's global manufacturing footprint and selection of locally sourced high quality raw materials results in very low values of embedded $CO_2$. This positively contributes to reduced carbon footprint of your project. Hempafire Pro coatings, along with compatible Hempel primers and topcoats have been tested and certified with Environmental Product Declarations (EPD), which contribute to achieving points and credits for Green Building Schemes such as LEED and BREEAM.

# We are here to support you

From specification through to ongoing maintenance, we work with you to improve the quality and efficiency when applying our coatings.

**Hempel services puts our unique expertise at the heart of your coating process.**

Our certified coating advisors work with you to assist with a smooth start-up on new projects and advise on application and application equipment, ensuring you benefit from lower application costs, more efficient application and a high-quality finished coating.

**A more efficient coating project**

- Coating advisory service helps you save time and resources during application
- Global network of more than 600 coating advisors ensures local expertise

**Hempel's Centre of Excellence in Barcelona focuses on the research and development of coating products within the field of passive fire protection.**

This state-of-the-art facility comprises of 3,000 $m^2$ of laboratory, testing areas and offices and is home to a team of highly skilled technicians, applicators, fire testers and scientists. As a global leader in the coatings industry, Hempel is committed to developing and increasing a range of solutions that our customers can trust to protect their buildings and industrial installations.


### Maison de l'Ordre des Avocats, Paris, France

This modern building is designed with glass façade and a glossy metal exoskeleton, which needed proven passive fire protection coating that would enable the steel to maintain its load-bearing capacity for up to 90 minutes during a fire.

Hempel's Hempafire Pro 315 intumescent coating system was chosen due to its compliance with the EN 13501-2 standard as well as its exceptionally low loadings, the product requires significantly lower dry film thicknesses resulting in reduced paint consumption, reduced application time and lower project costs.

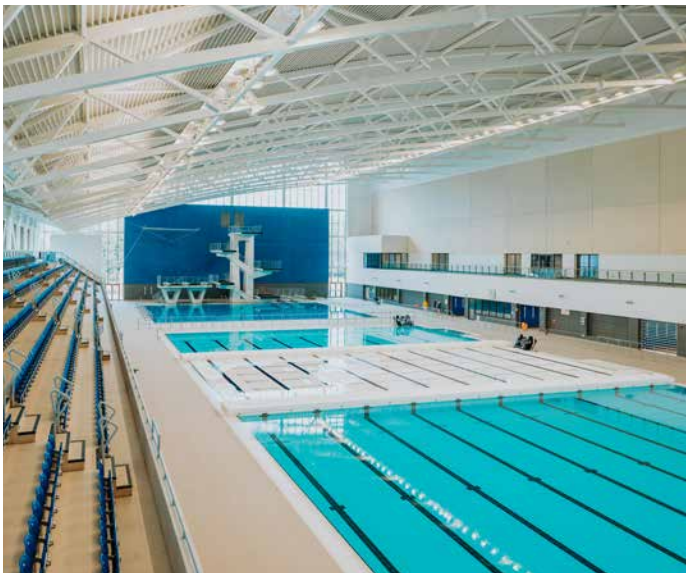
| Products |
| --- |
| Hempafire Pro 315 |

### Sandwell Aquatics Centre, Birmingham, UK

This facility was initially constructed to host The Commonwealth Games in 2022. It boasts of contemporary architecture and design of exposed steel, sprawling over a significant area featuring state-of-the-art swimming pools, diving areas, and leisure zones. This ambitious project required a fire protection solution that could ensure the safety and integrity of its steel structures while contending with the unique challenges posed by high humidity environments typical of aquatic centers.

Hempafire Pro 315 was the preferred choice for its outstanding performance characteristics—namely, its superior fire resistance, ease of application, and its aesthetic excellence. Efficiencies in application processes ensured that the ambitious timelines of the construction were met without compromise, facilitating a smooth and uninterrupted build.

| Products |
| --- |
| Hempafire Pro 315 |



### Assima Tower, Kuwait City, Kuwait

The Assima Tower is part of the Assima Project, the largest commercial building complex in Kuwait City, featuring over 380,000 $m^2$ of usable space spread across 54 storeys – housing over 150 offices, which required passive fire protection.

Gulf Crescent Mechanical, the project's application company needed to turnaround painted steel from yard to site quickly. Hempafire Pro 400 was chosen due to its highly competitive loadings and increased productivity with fast throughput, offering 90 minutes of fire protection respectively.

Our Hempafire Pro 400 coating system also benefited from reduced paint consumption, increased sustainability gains and lower project and labour costs.

| Products |
| --- |
| Hempafire Pro 400 |

# Selected references

| Project | Location | Products |
|---|---|---|
| Adla Car Park | Dubai, United Arab Emirates | Hempafire Pro 400 |
| Amazon Data Centre | India | Hempafire Pro 400 |
| Ansari Hospital Project | Yanbu, Saudi Arabia | Hempafire Pro 400 |
| Aplitesca Project | Spain | Hempafire Pro 315 |
| Assima Tower | Kuwait City, Kuwait | Hempafire Pro 400 |
| Castlewood House | London, UK | Hempafire Pro 400 |
| Catl Car Battery Factory | Hungary | Hempafire Pro 315 |
| Chemical Warehouse | Saudi Arabia | Hempafire Pro 400 |
| City Square Hassima Tower | Manchester, UK | Hempafire Pro 400 |
| Cogersa Project | Spain | Hempafire Pro 315 |
| Colt Data Center | Mumbai, India | Hempafire Pro 400 |
| Data Hall Project | UK | Hempafire Pro 400 |
| Extruder Lines 3 & 4 | Indonesia | Hempafire Pro 400 |
| Faze Apartments | Setúbal, Portugal | Hempafire Pro 400 |
| Hamad International Airport | Qatar | Hempafire Pro 400 |
| Kings Cross S3 | London, UK | Hempafire Pro 400 |
| La Cerámica Football Stadium | Villarreal, Spain | Hempafire Pro 400 |
| Latiitude Yellow Project | UK | Hempafire Pro 400 |
| LIV Tower | Saudi Arabia | Hempafire Pro 400 |
| Logistic Warehouse | Greece | Hempafire Pro 400 |
| New Centre Showroom | Doha, Qatar | Hempafire Pro 400 |
| New Fill Mill | Oman | Hempafire Pro 400 |
| Planta Quimica | Spain | Hempafire Pro 315 |
| Porto Arabia Yacht Club | Doha, Qatar | Hempafire Pro 400 |
| Red Sea Project | Saudi Arabia | Hempafire Pro 400 |
| Santiago Bernabèu Stadium | Madrid, Spain | Hempafire Pro 315 |
| Starsmet Project Warehouse | Latvia | Hempafire Pro 315 |
| Tabuk Entertainment Centre | Saudi Arabia | Hempafire Pro 400 |
| Tata Electronics Hosur | India | Hempafire Pro 400 |
| The Hub, Victoria | London, UK | Hempafire Pro 400 |
| The Usher Building | London, UK | Hempafire Pro 400 |
| Vantage Data Centre | UK | Hempafire Pro 400 |
| Wellington Place | Leeds, UK | Hempafire Pro 400 |
| 100 Fetter Lane | London, UK | Hempafire Pro 400 |

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 paints and coatings can be found in almost every country of the world. They protect and beautify buildings, infrastructure and other assets, and play an essential role in our customers' businesses. They help minimise maintenance costs, improve aesthetics and increase energy efficiency.

At Hempel, our purpose is to shape a brighter future with sustainable coating solutions. We firmly believe that we will succeed as a business only if we place sustainability at our heart. Not only is it the right thing to do, it will strengthen our competitive position, make ourselves more resilient and reduce our risk.

Hempel was founded in Copenhagen, Denmark in 1915. It is majority 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.

**Hempel A/S**
Lundtoftegaardsvej 91
2800 Kgs. Lyngby
Denmark

Tel: +45 4593 3800
Email: hempel@hempel.com

V6_APR_24