



SHERWIN-WILLIAMS®
Protective & Marine Coatings

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BUILDING OUR
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FIRETEX[®] FX-5090 WATER BASED TECHNOLOGY

THIN-FILM FIRE PROTECTION
INTUMESCENT COATING WITH
AN ATTRACTIVE DECORATIVE FINISH



FROM SPEC TO PROTECT

FIRETEX[®]

protectiveeu.sherwin-williams.com



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WORLD CLASS FIRE PROTECTION SOLUTIONS

The Sherwin-Williams Company is a global leader in the manufacture, development, distribution, and sale of paint, coatings, and related products. Founded in 1866, the company has grown to become the largest coatings company in the world by revenue.

It operates in over 120 countries and has a diverse workforce of more than 61,000 employees. Supported by 12 factories and 9 research and development centres across Europe, the company's mission is to innovate and grow in new and exciting ways, providing differentiated distribution and value added service to its customers.

Sherwin-Williams's technology is performance without compromise. In its 150-year-plus history, Sherwin-Williams has been committed to enhancing our customers' operations and accelerating their business growth with innovative, high-performance coating solutions, world class industry expertise, and unparalleled technical, specification and commercial service.

With over 150 years experience in the coatings industry, we understand how critical it is that your investment gives you a quality, long-term fire protection system that performs in demanding environments.





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EVOLUTION OF WATER BASED INTUMESCENT

Architects and engineers today are reaching new heights and creative form in building construction. Sherwin-Williams's **FIRETEX® FX-5090** high quality water based intumescent coatings provides a visually pleasing, smooth and hard finish that allows flexibility and creative exposure of structural steel surfaces in building design, whilst providing essential fire protection to the structural steelworks.

Whether you specify **FIRETEX® FX-5090** alone or in conjunction with our exceptional primers and topcoats, you can be assured that you are selecting a passive fire protection system that has been researched, developed and thoroughly tested to the highest standard of International Standards approvals.

During the past 25-30 years, millions of tons of steelwork have been successfully fire protected with water based intumescent coatings and many contractors, engineers, architects and building owners had realised the benefits of using **FIRETEX® FX-5090** intumescent coatings.





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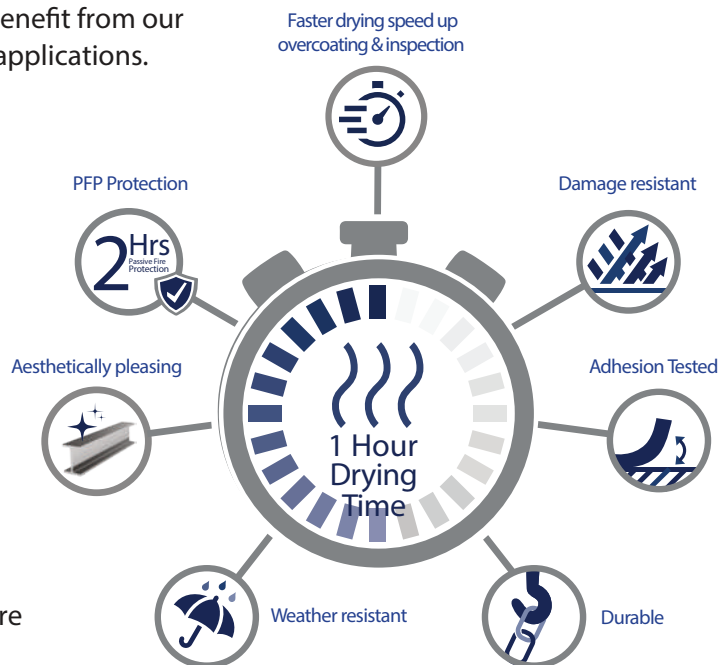
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INNOVATION IS A KEY GUIDING VALUE OF OUR BUSINESS

We innovate to ensure that our customers are the first to benefit from our pioneering advancements in products, coatings and their applications.

Architects and engineers today are reaching new heights and creative form in building construction to achieve a decorative and highly desirable finish without compromising on quality. **FIRETEX® FX-5090** unique and innovative patented technology provides a visually pleasing, smooth and hard finish that allows flexibility and creative exposure of structural steel surfaces in building design, whilst providing essential fire protection to the structural steelworks.

It delivers unparalleled speed of drying, together with an excellent aesthetic appearance and fantastic resistance to handling, construction damage and 20 years exterior durability to support design flexibility and creative exposure of structural steel surfaces in building design.





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TO PROTECT AGAINST FIRE, REACH FOR THE WATER-BASED

Sherwin-Williams's innovative water based resin technology, whilst offering essential long term service and critical fire protection to steelwork for up to 120 minutes, meet the fire-resistance requirements of best-in-class products. Today FIRETEX® FX-5090 water based intumescent coatings have long since overtaken their solvent based predecessors, and now dominate the sector. With a wide range of environmental accreditations, including third party environmental declarations (EPD) the FIRETEX® FX-5090 contribute to green building programmes such as LEED V4.1/Green benefits.

BENEFITS AT A GLANCE

- Solvent free - no solvent entrapment, a contributor to Sick Building Syndrome
- Safer to use - no hydrocarbon solvents hence enable usage in concerned spaces
- No solvent build up in concerned spaces - reduce health hazard during application
- Rapid evaporation - faster drying time for over coatings and earlier job completion
- Higher build capability - number of coats are reduced thus saving construction time
- No trapping of any water in the film - no bubbling and blistering
- No formation of skin surface - achieve 'through drying' much faster
- No adhesion loss - moisture do not form an incompatible layer
- Excellent protection durability - strong resistance to humidity
- All weather-ability - withstanding to C5 environmental conditions
- High life expectancy and sustainability up to 25 years
- Low emissions of Volatile Organic Compounds (VOC)
- Environmentally friendly - non-hazardous classification for waste disposal purposes





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PERFORMANCE WITH AN ATTRACTIVE FINISH FOR CONSTRUCTION PROJECTS

Traditional fire protection solutions for structural steel are functional but sometimes unattractive. Such traditional materials are often formulated with fibers that produce an undesirable finish and take away from the overall aesthetic of the structure. [FIRETEX® FX-5090](#) is a passive intumescent fire protection solution that addresses this challenge. This water-based, thin-film coating has an extremely smooth, paint-like finish that allows architects to fully expose steel as part of aesthetic design, while providing life-saving protection for structures and people at the same time.

HIGHLIGHTS

- Extremely smooth, aesthetically pleasing finish
- Up to two-hour fire rating for cellulosic fires
- UL 263, UL CDXA and UL CDYD certified fire protection
- Extremely low VOC levels
- High bond strength
- Excellent edge retention and film build properties
- Single-component brush or airless application
- Suitable primarily for field application
- No topcoat required in interior conditioned spaces
- Best-in-class dry film thickness requirements
- LEED v4 and v4.1 certified, and third party EPD generated
- High damage resistance and lower weight to reduce construction and transportation costs





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FAST - TOUGH - SUSTAINABLE PROTECTION YOU CAN TRUST





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FIRETEX® INTUMESCENT FINISH STANDARDS

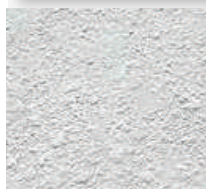
For fire protection on exposed and expressed architectural structural steel, understanding the requirements of finish are critical to ensuring satisfaction with the finished project. Various finishes may be achieved using the FIRETEX® range of products to maximize aesthetic satisfaction and minimize unnecessary cost. A variety of finish standards can be achieved depending on the look desired and the available budget. The level of finish, however, has no bearing on the achieved FRL.



Level of Finish No: 1 – Basic

Description: Visible spray/roller marks, uneven surface

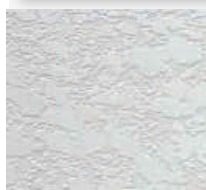
Typical use: Concealed steel (e.g. ceiling voids, service areas)



Level of Finish No: 2 – Decorative/Industrial

Description: Reasonably smooth but imperfections visible on close view

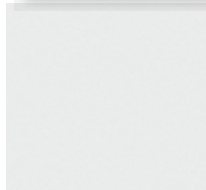
Typical use: Exposed steel in Public area in close proximity (> 3m visual proximity)



Level of Finish No: 3 – Decorative

Description: Visible spray/roller marks, uneven surface

Typical use: Exposed steel in public area in close proximity (within 3m of the steel surface)



Level of Finish No: 4 – Ultra Decorative

Description: Very smooth, high quality finish, free of visible defects even under strong lighting at close viewing distance, comparable to high-end architectural paint

Typical use: Only at front of house areas where persons can come right up next to the steel





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INTERNATIONAL STANDARDS APPROVALS

FIRETEX® FX-5090 intumescent coatings has been independently 3rd party tested and assessed to the most stringent International Fire Testing Standards in order to provide our customers with unique and compliant fire protection solutions. In addition, our expanded portfolio of high-performance coatings and systems is also engineered to defend assets against corrosion, chemical attack, wear, or high temperatures. With world-class industry subject matter expertise, unparalleled technical and specification service and unmatched regional commercial team support to our customers around the globe, we offer high-performance coating systems to help customers achieve smarter, time-tested asset protection.

APPROVALS:

- ETA-15/0486
- BS 476-21: 1987
- Certifire Certificate CF5188
- CE Mark No: 1121-CPR-GA5024
- Tested and Assessed to EN16623
- Tested and Assessed to EN1338-8 & 9
- UL 263, UL CDXA and UL CDYD Certified
- SETSCO (Singapore) COC: FSP-2024-1488
- Reaction To Fire: EN 13501-1: Class D-s1-d0
- Resistance To Fire: EN 13501-2: Class B-s1-d0
- Durable coating can be specified for use in external up to C5 environment as defined in ISO 12944-2



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LIFE EXPECTANCY AND SUSTAINABILITY

The environmental concerns were an important consideration early on in the process. Our research and development teams discovered that the chemistry gave off 90% lower volatile organic compounds compared to similar products. The applicators are exposed to fewer harmful emissions especially when applied in-shop in a controlled environment rather than on-site. The product is certified to EN 16516 for low volatile emissions. There is also the reassurance of LEED 4.1 compliance, the leading green building project and performance management system. This collaborative work is now gaining a following among specifiers, contractors, fabricators and applicators, particularly due to the large demand for construction environments which are greener and healthier to work in.

The **FIRETEX® FX-6002** systems have been fire tested after ageing and weathering without any significant change in intumescent char production or insulating properties. Under normal internal conditions the systems are expected to provide protection for the life of the project with minimal aesthetic maintenance. Durability testing under ETAG 18 Part 2 it proved they met the criteria for Type X, internal, semi-exposed and exposed locations. **FIRETEX® FX-6002** is mechanically tough and resilient to reduce risk of damage, with enhanced durability to provide C1 to C5 environment protection with a life expectancy of more than 20 years.

EXCELLENT PROTECTION DURABILITY

Fire
Protection

2-Hrs

Corrosive
Environments

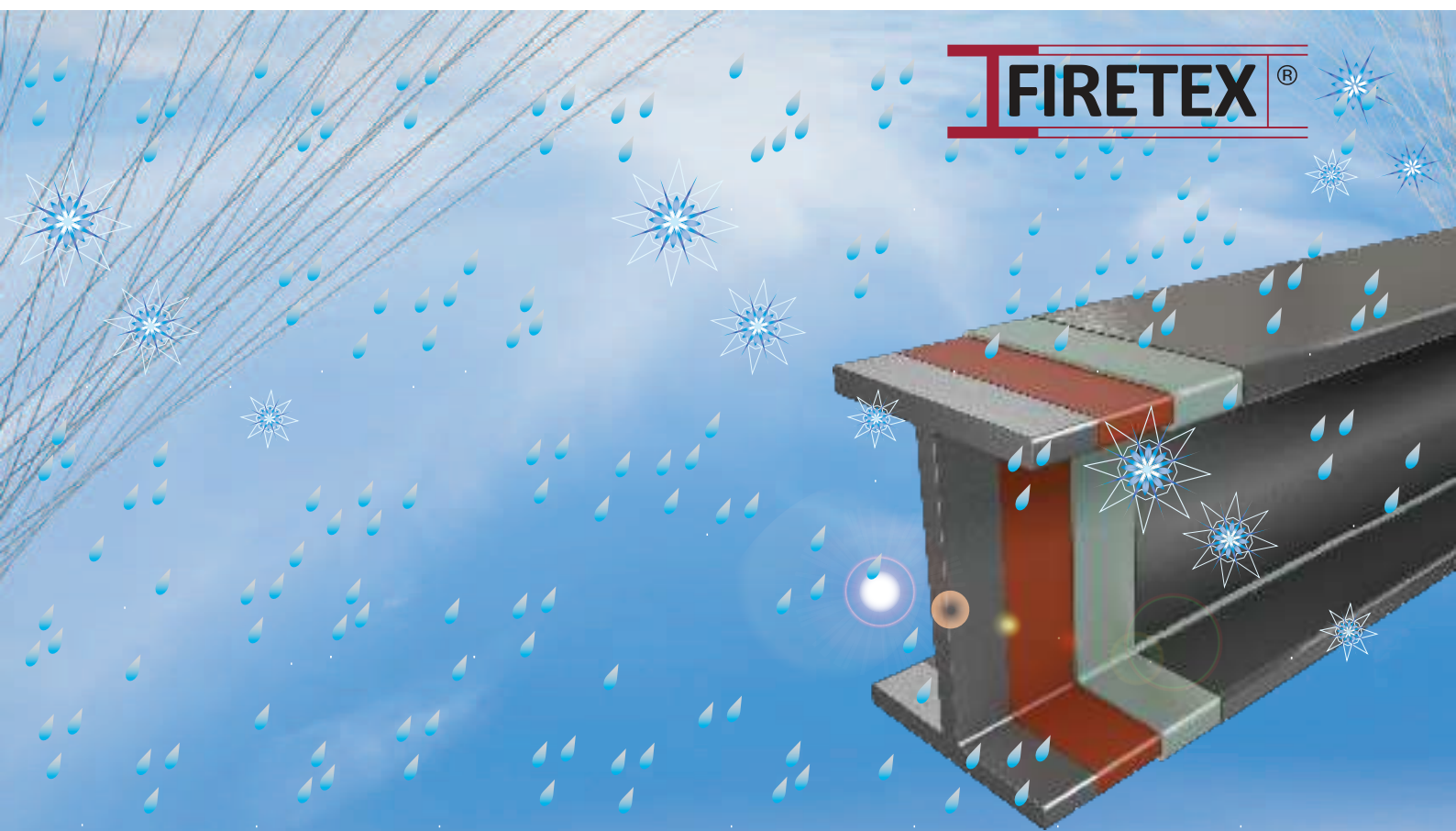
C1-C5

UL 2431
Durability

>20yrs



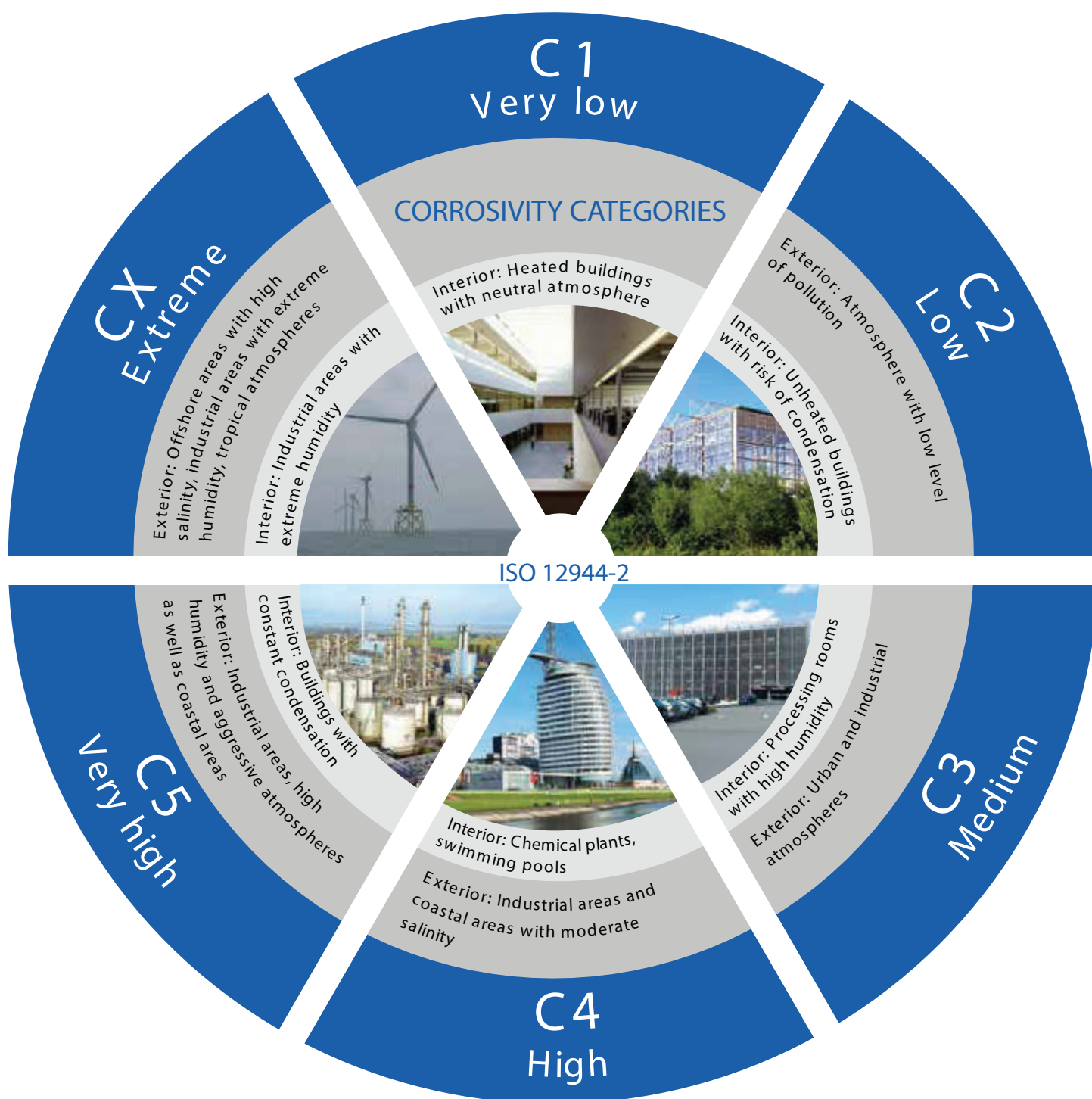
LEED v4 & v4.1 certified,
& 3rd party EPD generated





PERFECT RESULTS FROM INNOVATIVE AND PROVEN COATING SYSTEMS

Coatings for the corrosion protection of structural steel are exposed to specific corrosion loads depending on the ambient conditions. These are defined in ISO 12944-1,-2 depending on durability range and corrosivity category. The corrosivity categories were restructured in the 2018 revised standard and now range from C1 to CX. Category CX (part 9 of the standard) refers to extremely corrosive environments, particularly offshore and industrial areas with extreme humidity. Based on many years of experience, it is now possible to provide coating systems for steel with more than 25 years of durability in almost all atmospheric load ranges. As a result, increasing the durability range to more than 25 years has now been possible.



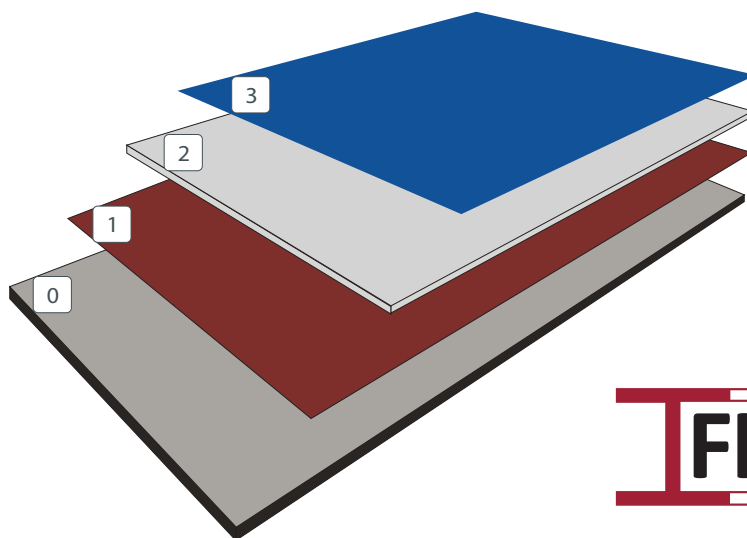


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CORROSION PROTECTION ACCORDING TO ISO 12944-5: 2019 DURABILITY PROTECTION ACCORDING TO ETAG 18-PART 2 LOW VOC CERTIFIED TO EN16516 & LEED 4.1 COMPLIANCE



FIRETEX®

C1 to C3 corrosive environments Direct-to-metal without topcoat:

- 3 Durability Protection Topcoat:
Against Weathering & UV (Not Required)
- 2 Fire Protection Intumescent:
FIRETEX FX6002 or FIRETEX FX 5090
- 1 Corrosion Protection Primer:
SW Macropoxy 400 or equivalent
- 0 Carbon Steel Surface Treatment:
Hot dip galvanizing BS EN 1461 or
Blast clean to Sa2½ BS EN ISO 8501-1:2007

C1 to C3 corrosive environments Optional aesthetic topcoat:

- 3 Durability Protection Topcoat:
SW Acrolon 7700 or equivalent
- 2 Fire Protection Intumescent:
FIRETEX FX6002 or FIRETEX FX 5090
- 1 Corrosion Protection Primer:
SW Macropoxy 400 or equivalent
- 0 Carbon Steel Surface Treatment:
Hot dip galvanizing BS EN 1461 or
Blast clean to Sa2½ BS EN ISO 8501-1:2007

Up to C5 corrosive environments:

- 3 Durability Protection Topcoat:
SW Acrolon 7700 or equivalent
- 2 Fire Protection Intumescent:
FIRETEX FX6002 or FIRETEX FX 5090
- 1 Corrosion Protection Primer:
SW Macropoxy 400 or equivalent
- 0 Carbon Steel Surface Treatment:
Hot dip galvanizing BS EN 1461 or
Blast clean to Sa2½ BS EN ISO 8501-1:2007

Up to C5 corrosive environments Ultra-fast dry-to-handle topcoat solution:

- 3 Durability Protection Topcoat:
SW Envirolastic 2500 or equivalent
- 2 Fire Protection Intumescent:
FIRETEX FX6002 or FIRETEX FX 5090
- 1 Corrosion Protection Primer:
SW Macropoxy 400 or equivalent
- 0 Carbon Steel Surface Treatment:
Hot dip galvanizing BS EN 1461 or
Blast clean to Sa2½ BS EN ISO 8501-1:2007



TYPES OF PASSIVE FIRE PROTECTION

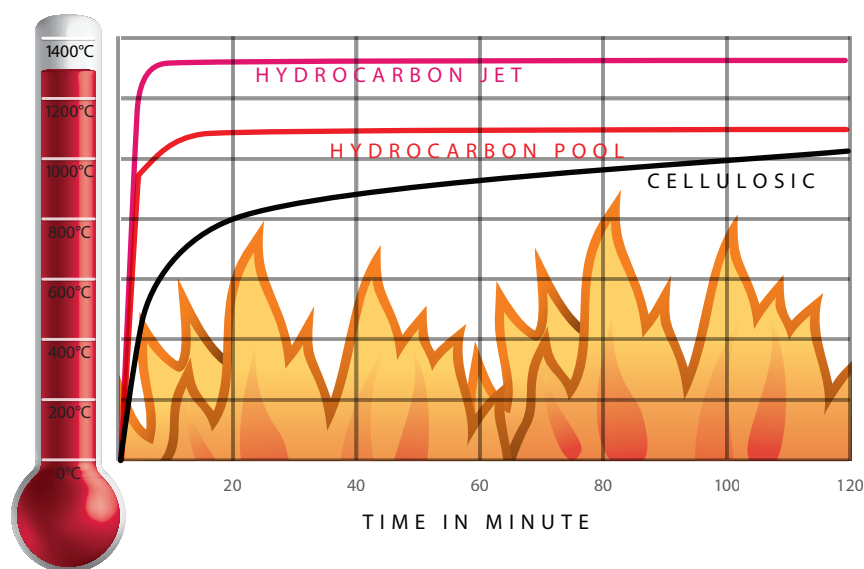
There are 3 main types of fire, and the location of the fire will determine the speed and heat of the blaze. Cellulosic fires fuel sources are cellulose, e.g. wood, cardboard, paper, cotton, etc. They take longer to reach their peak heat than a hydrocarbon fire, and will not burn as hot. Hydrocarbon fires are those that burn because of a combustible liquid or accelerant like petrol or chemicals. They burn hot and extremely fast. Jet fires is a special type of hydrocarbon fire and rapid rise fires, e.g. tunnels, nuclear fires, etc.

Cellulosic Fires:

- Occur when burning wood, textiles, paper
- Civil construction industry
- Fire protection rating @ 2 hours
- Passive Fire Protection - Category 1 - tall buildings, factories, warehouses, stadiums, bridges, etc.

Hydrocarbon Fires:

- Occur when burning oil or gas
- Oil and gas or petrochemical industry
- Fire protection rating @ 4 hours
- Passive Fire Protection Category 2 - oil & gas, refineries, petrochemical plants, etc.



FIRE ENGINEERING AND ESTIMATION TEAM

Sherwin-Williams's Fire Engineering and Estimating Team (FEET) carried out structural analysis of the steelwork under fire loading. FEET's unique blend of experience and expertise means it can offer fire engineering information and solutions as early as the concept stage.

By using Sherwin-Williams' **FIRETEX®** Design Estimator (FDE) software, complex fire calculations can be made for both cellulosic and hydrocarbon fire preparedness, to calculate thicknesses across multiple fire rating time frames against our extensive product range to provide the most economical, cost effective and fire-safe solution for the project. This also includes advanced structural fire engineered approaches. The team design for both cellulosic and hydrocarbon fire scenarios. Data can be seamlessly shared back to the 3D BIM model for future building maintenance and fire management.





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ADMIN BUILDING IN HERZOGENAURACH

The 12,000-tonne structure appears to float above the lawn, carried only by 19 elegant white columns. The high requirements for fire protection were met with **FIRETEX® FX-5090**. Almost 300 tonnes of the fire protection technology were used. The available evacuation time in the event of fire was significantly extended and the construction time shortened, because the schedule was ambitious and the structure had to be constructed in winter.





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PUBLIC LIBRARY IN BAD VILBEL

The Bad Vilbel library construction project shows that coated structural elements can also be stored outdoors. **FIRETEX® FX-5090** was coated to the steel beams and columns and were stored for some time on the river bank, where the library was to be built later on as a bridge over the River Nidda. The patina which were developed during that time was simply and quickly removed by using high pressure cleaners, as the **FIRETEX® FX-5090** exhibits high resistance to shock, impact and abrasion. This allows the coated steel beams to be taken to the desired destination without transport damage. A further reason for worry-free storage in the open air is the fact that the technology of **FIRETEX® FX-5090** offers protection against corrosion and fire in one. Without priming and top coats, the fire protective coating has been tested in accordance with ISO 12944 to the corrosivity category C3 and as a coating system even to C5 very high.





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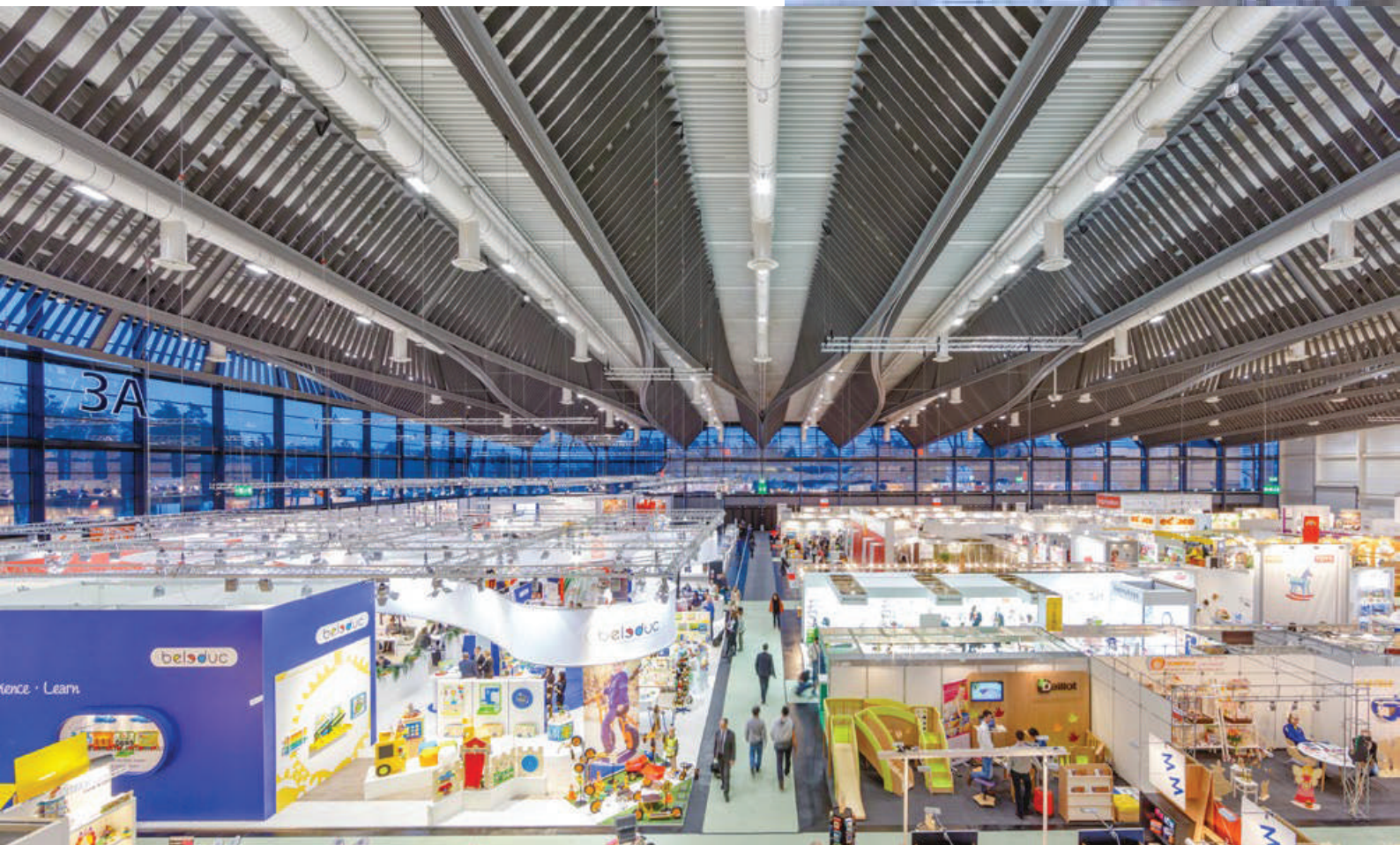
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EXHIBITION HALL 3A IN NUREMBERG

The DGNB - Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) recommends the use of intumescent coatings with a low VOC content for fire protective coatings.

FIRETEX® FX-5090 the solvent-free technology meets the DGNB special requirement but is the only product that is also qualified for outdoor use without the use of primer and top coat. The 2-pack epoxy-resin system also provides fire protection for a steel surface of around 600m² in Hall 3A of the Nuremberg Exhibition Centre. Through the target oriented and systematic consideration for new energy standards and the consequent concentration on sustainability in planning, construction and operation, Hall 3A was the first German trade fair hall to be awarded with the DGNB Platinum Certificate according to the standards of the German standards of the German Sustainable Building Council. **FIRETEX® FX-5090** has contributed to that, because it meets the requirements of the DGNB system. Moreover, as intumescent coatings, free from halogens and benzyl alcohol, the Platinum Technology meet the specifications and recommendations of international certification systems such as LEED v4 or BREEAM.





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BRING HOME THE BACON FOR DANISH CROWN

Sherwin-Williams, the leading global manufacturer of paints and coatings, has announced that its innovative solutions are being employed at Danish Crown's new £100m bacon production plant in Rochdale. Set to produce more than 900 tonnes of bacon and gammon a week to UK welfare and food safety standards, the 30,500m² facility will use highly automated manufacturing equipment and the latest processing technology.

The cutting-edge facility is being constructed using 1,500 tonnes of internal prefabricated structural steelwork produced by Cambridgeshire based SDM Fabrication. The company's managing director, Richard Melton, commented, "In addition to the design, fabrication, painting, and on-site installation of the steelwork at the Danish Crown plant, we are also responsible for making sure that its integrity is maintained in the event of a fire. Already aware of the company's market leading range of intumescent coatings, I contacted Sherwin-Williams to assist in meeting the project's fire protection requirements."

The majority of the steelwork coating is being applied off-site, some if it is being carried out while the bare metal is in-situ. For this purpose, and to avoid exposure to VOCs, Sherwin-Williams recommended its [FIRETEX® FX-5090](#) water based intumescent coating. As it enters the final stages of construction, the new Danish Crown facility is due to begin production in late 2023 and will create around 300 specialised jobs once fully operational. Richard Melton of SDM Fabrication concluded, "Any food production environment must be built to the highest possible specifications to ensure the safety of those working in it. Sherwin-Williams has offered us a great deal of valuable advice and support in making sure that the building is protected from the potentially devastating effects of fire. As well as offering the highest levels of passive fire protection, [FIRETEX® FX-5090](#) is hardwearing, easy to apply and quick drying – qualities that make it a pleasure to use and ideal for this project."





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EXPERTISE TO HELP GUIDE YOUR PROJECT SUCCESS

Sherwin-Williams delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high performance coatings and systems helps customers achieve smarter, time-tested asset protection.

Contractors face a number of unique challenges in the coatings industry today, from finding qualified workers and executing successful projects to costly production chain holdups and rigorous inspections. Working with an experienced, field-tested Technical Service Team can help alleviate many of these issues. Including a trusted technical resource in your coatings process will help complete your project quickly with minimal touch-up work.





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ABOUT SHERWIN-WILLIAMS

The Sherwin-Williams Company (NYSE: SHW) is a global leader in the development, manufacture, distribution and sale of paint, coatings and related products to professional, industrial, commercial and retail customers.

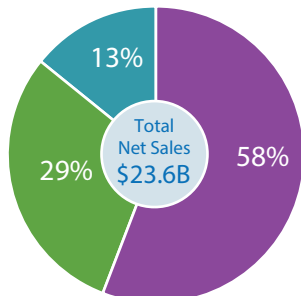
Founded in 1866 by Henry Sherwin and Edward Williams, our Company has spent more than 150 years creating a legacy of growth, creativity and innovation. With global headquarters in Cleveland, Ohio, Sherwin-Williams' branded products are sold exclusively through a chain of more than 5,000 Company-operated stores and branches, while our other brands are sold through leading mass merchandisers, home centers, independent paint dealers, hardware stores, automotive retailers and industrial distributors. We also supply a broad range of solutions for the construction, industrial, packaging and transportation markets in more than 120 countries around the world. Enabling all of this work are our employees - the pride of our Company - who bring their technical expertise, customer service mindset, innovative energy and commitment to safety to all we do.

64,000+
Employees

120+
Countries

5,600+
Stores and Branches

130+
Manufacturing and Distribution Facilities



2025 Net Sales by Segment

- Paint Stores Group
- Performance Coatings Group
- Consumer Brands Group

Our Global Reach

Key: ■ Paint Stores Group

■ Consumer Brands Group

■ Performance Coatings Group

Canada

263 ■ Paint Stores
23 ■ Branches & Facilities
5 ■ Facilities

United States

4,504 ■ Paint Stores
219 ■ Branches & Facilities
62 ■ Facilities

Caribbean

86 ■ Paint Stores
2 ■ Facilities

Latin America/South America

307 ■ Paint Stores
24 ■ Branches & Facilities
21 ■ Facilities

Europe, Middle East, Africa and India (EMEA)

56 ■ Branches & Facilities
21 ■ Facilities

Asia-Pacific

7 ■ Branches & Facilities
9 ■ Facilities

Africa

1 ■ Facility

Australia

1 ■ Facility



THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems that excel at combating corrosion helps customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including oil and gas, water and wastewater, bridge and highway, steel fabrication, flooring, food and beverage, rail and power, marine and passive fire protection.

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