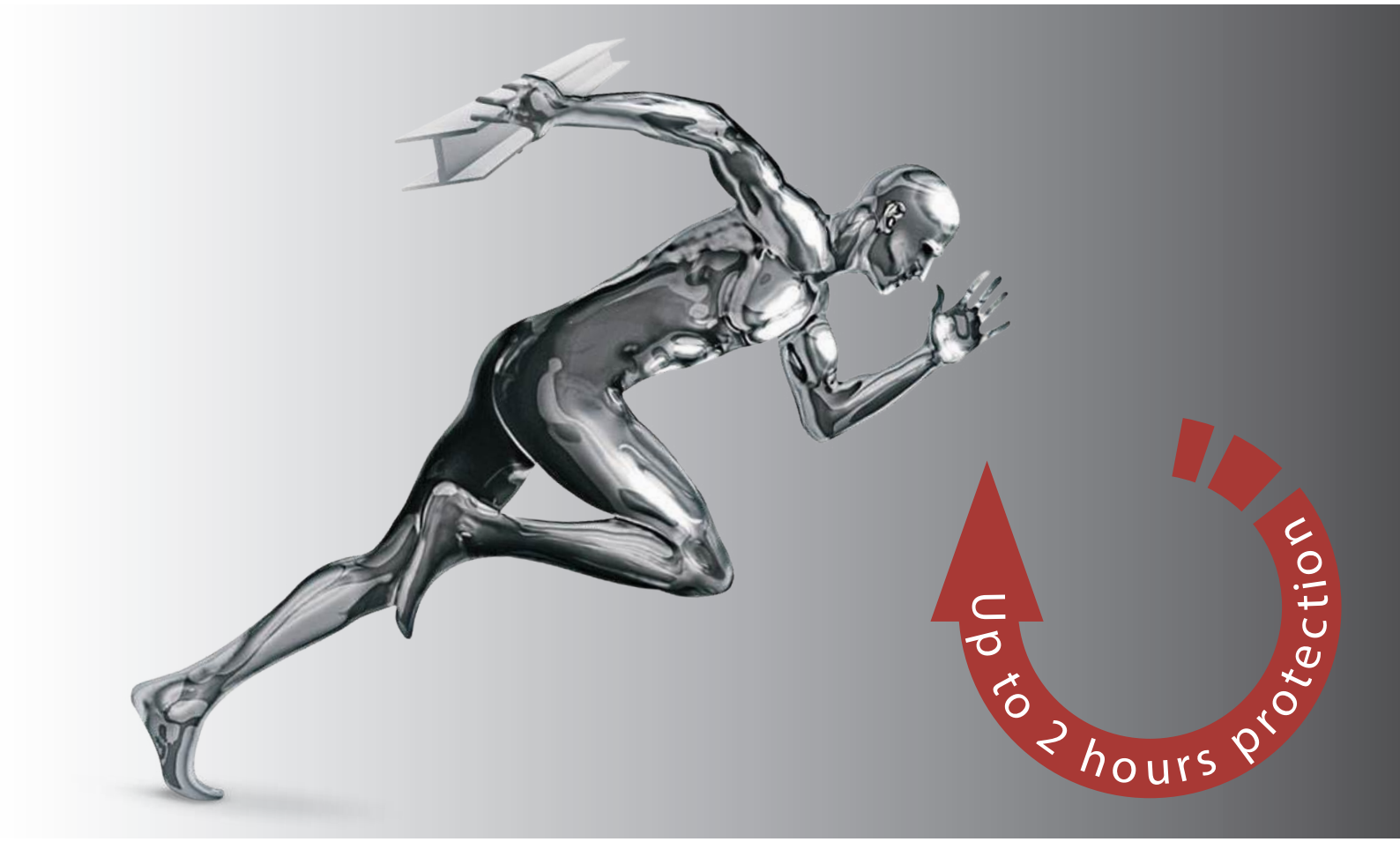
SHERWIN-WILLIAMS
Protective & Marine Coatings

FIRETEX®

FIRETEX® PLATINUM TECHNOLOGY

SOLVENT-FREE EPOXY INTUMESCENT PASSIVE FIRE PROTECTION DESIGNED TO PROTECT STRUCTURAL STEEL



FROM SPEC TO PROTECT

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FIRETEX®

WORLD CLASS FIRE PROTECTION SOLUTIONS

Sherwin-Williams's technology is performance without compromise. With over 150 years experience in the coatings industry, we understands how critical it is that your investment gives you a quality, long-term fire protection system that performs in demanding environments.

FIRETEX® Platinum technology can provide a visually pleasing finish that allows for a creative usage of structural steel surfaces in building design, whilst offering essential long term service and critical fire protection to steelwork for up to 120 minutes. Optimized for application in shop or at the job site, ensuring that whatever the construction schedule, you can be assured that you are selecting a passive fire protection system that has been researched, developed and fire tested to the highest International Standards approvals.

With a wide range of environmental accreditations, including third party environmental declarations (EPD) the FIRETEX®Platinum contribute to green building programmes such as LEED, BREEAM, WELL and DGNB.

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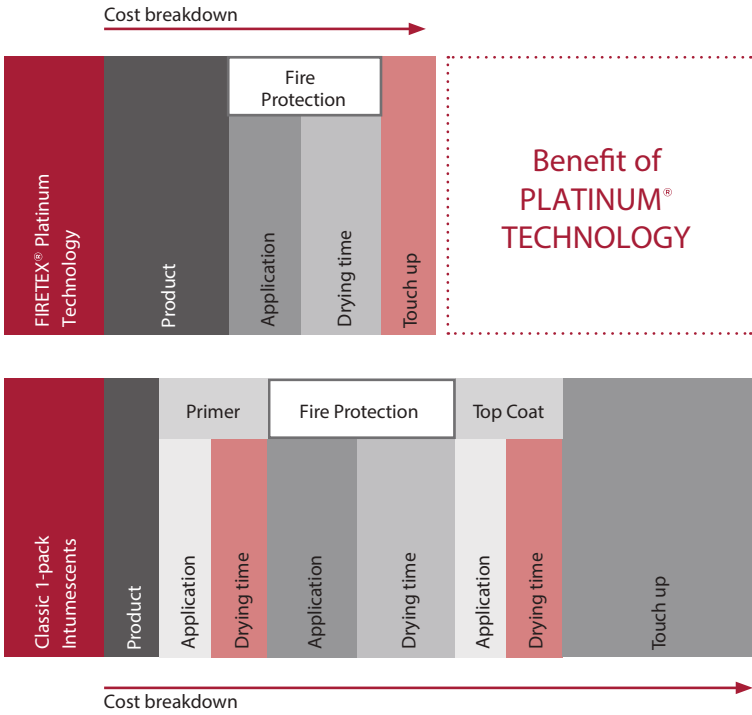
PERFORMANCE WITHOUT COMPROMISE

The Ultimate in Durability

Originally launched in 2012, the FIRETEX®Platinum technology was truly innovative. Developed by our research team in collaboration with selected industry partners, the FIRETEX®Platinum products represented a new generation of epoxy intumescent coatings for the cellulosic fire protection market.

FIRETEX®Platinum solvent-free technology differentiates itself from conventional 1-pack fire protection coatings in certain key ways; its fast and predictable drying, resistance to mechanical damage, and the option to eliminate primer and topcoat in certain circumstances. Furthermore, the FIRETEX®Platinum range represents the ultimate in weather resistance compared to other single and multi-component intumescent coatings.



YOUR BENEFITS AT A GLANCE

IN-SHOP APPLICATION

Dries by chemical reaction meaning fast and drying times predictable

SOLVENT-FREE

Meets the requirements of DGNB, LEED and BREEAM

TOUGH AND DURABLE

Outdoor storage of the coated steel components is possible

2 IN 1: FIRE PROTECTION + CORROSION PROTECTION

Tested as a coating system for C5 - very high accordinging to ISO 12944-6

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FIRETEX® PLATINUM-120 ADVANTAGES

FIRETEX® Platinum-120 is a solvent-free, 100% solids, 2-pack modified epoxy-resin intumescent fire protection coatings for internally or externally exposed structural steel. It provides long term exterior durability, with excellent corrosion protection according to ISO 12944-6:2018 up to C5 very high (as coating system) and fire protection up to 2-hours of fire protection to structural steel. It can be applied in shop or on site to achieve superior quality, durability, sustainability and desirable pleasing aesthetics.

FIRETEX® Platinum-120 is easily applied with any standard airless spray equipment, requires no reinforcement, fast curing to a very tough and damage resistant finish, transportable and ready to assemble 24 hours after application. It has been formulated to provide corrosion protection, damage resilience and fire protection all in one seamless solution, with life expectancy > 25 years.

FIRETEX® Platinum TECHNOLOGY:

- 100% solids, 2-pack modified epoxy-resin
- Solvent-free according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04)
- Low odour and zero flash risk
- Free from halogens, VOCs and benzyl alcohol
- Complied with the quality requirements of DGNB, LEED V4 and BREEAM
- Life expectancy > 25 years
- Film thickness up to 4 mm in one coat
- Withstands all weather influences
- No primer & top coat needed for outdoor application, type X classification
- Highly resistant to mechanical impact, shock and abrasion resistance
- Cleanable surface by high pressure water jet

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FAST - TOUGH - SUSTAINABLE
EXCELLENT PROTECTION DURABILITY
INTERNATIONALLY TESTED AND APPROVED

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INTERNATIONAL STANDARDS APPROVALS

The FIRETEX® Platinum-120 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-20/1162
- EN 16623: 2015
- BS 476-21: 1987
- Certifire Certificate CF5396
- Certificate of Conformity 0761-CPR-0972
- ASTM E119/CAN-ULC-S101 FM Approved
- UROFINS Indoor Air Comfort Gold
- Reaction To Fire: EN 13501-1: Class B-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

LIFE EXPECTANCY:

The FIRETEX® Platinum-120 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:

FIRETEX® Platinum-120 is mechanically tough and resilient to reduce risk of damage, with enhanced durability to provide C1 to C5 environment protection with life durability to 1st major maintenance:

- For C1 – Life of building
- For C2 – Life of building with topcoat, up to 20 years without
- For C3 & C4 – Over 25 years
- For C5 – Up to 25 years
- With 3rd party accredited performance to ISO 12944:2018 approved: C1 to C5 corrosivity categories up to very high durability (>25 years)

SUSTAINABILITY:

- DGNB
- LEED V4
- BREEAM
- Free from halogens
- Free from solvents & VOCs
- Free from benzyl alcohol

EXCELLENT PROTECTION DURABILITY

Fire Protection	Corrosive Environments	Durability
2-Hrs	C1-C5	>25yrs

2 IN 1: FIRE PROTECTION + CORROSION PROTECTION

FIRETEX® Platinum-120 offers fire protection and corrosion protection in one and has been tested and certified in accordance with ISO 12944-6 up to corrosivity category C5 high. The most important testing method for verifying a corrosivity category is the salt spray test:

- This cannot be carried out with conventional 1-pack intumescent coatings, since the approval does not allow for defects or damage to the fire protection.
- FIRETEX® Platinum-120 withstands the salt spray test, as a result of which the surface exhibits a closed film even after corrosivity testing and maintains its function as a fire protection coating.
- This performance capability has been verified in fire tests by independent institutes, confirmed by the ETA European Technical Document and will be monitored in future through continuous external inspections.

SHERWIN-WILLIAMS QUALITY PROMISE

CELLULOSIC PASSIVE FIRE PROTECTION

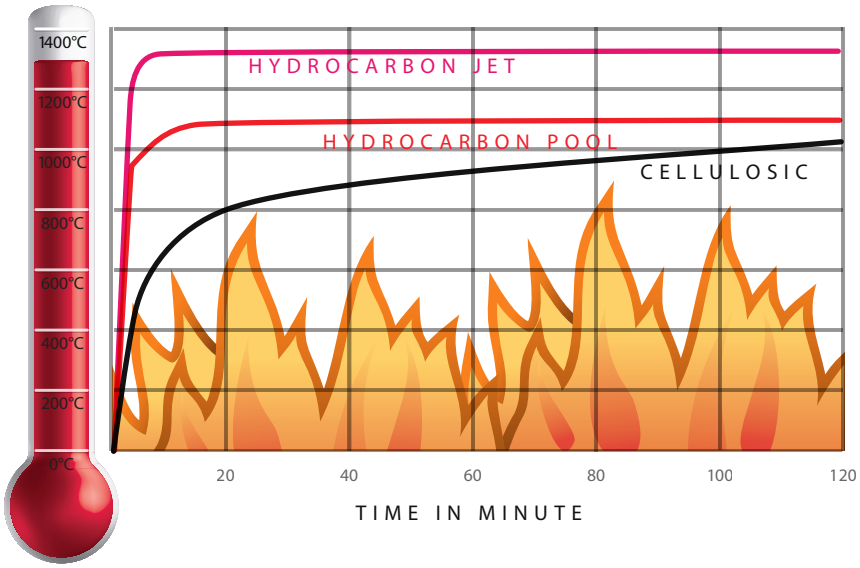
There are 3 main types of fire, and the location of the fire will determine the speed and heat of the blaze. Cellulosic fires fuel sources are cellulose, e.g. wood, cardboard, paper, cotton, etc. They take longer to reach their peak heat than a hydrocarbon fire, and will not burn as hot. Hydrocarbon 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, etc.
- 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.



SHERWIN-WILLIAMS 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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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. Naturally a higher level of finish is going to be more labour and material intensive and will therefore cost more. The level of finish, however, has no bearing on the achieved FRL.

STANDARD FINISH

Area of use: non-visible areas covered by ceilings

COMMERCIAL FINISH

Area of use: visible areas distant from foot traffic

ARCHITECTURAL FINISH

Area of use: visible areas infront of foot traffic

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ARENA 2036 IN STUTTGART

The largest and leading research platform for mobility in Germany was created at the University of Stuttgart in the ARENA 2036. The innovative campus for the automotive industry focuses firstly on function integrated products in a lightweight design and secondly on the highly efficient and sustainable production of sustainable automotive technology.

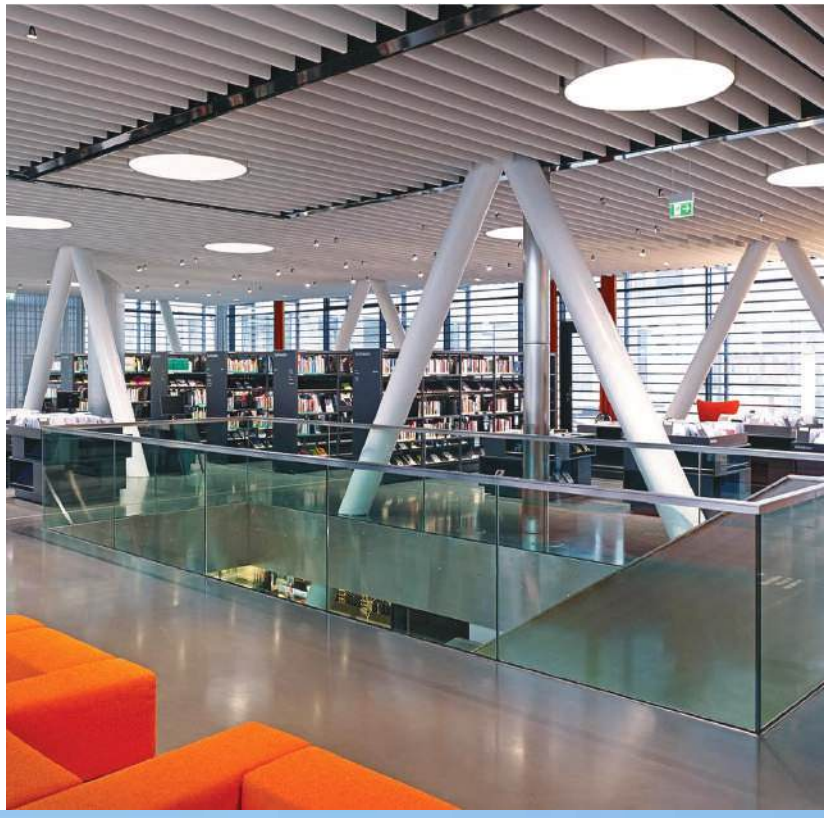
From the outside, the research campus has the appearance of a sawtooth roof construction with a folded aluminium and plastic facade that surrounds a hall with a floor space of about 5,000m2, virtually without columns.

An overhead crane track enables experimental setups in any place. All steel beams in the new research building were protected by using FIRETEX®Platinum-120. The 2-pack epoxy resin based fire protective coating was applied directly on the steel and is suitable for use in a C3 environment without primer and top coat. External tests by the manufacturer confirm a lifetime of the fire protection coating of at least 25 years with no special maintenance requirements.

Acrolon® PUR in traffic white was used as a top coat. Thanks to in-shop coating, no other trades were disturbed by spray mist and smells on the building site. In addition, the off-site coating application enabled a significantly faster construction process on site, because it was possible to deliver the beams to the building site for assembly in just 24 hours after the application.

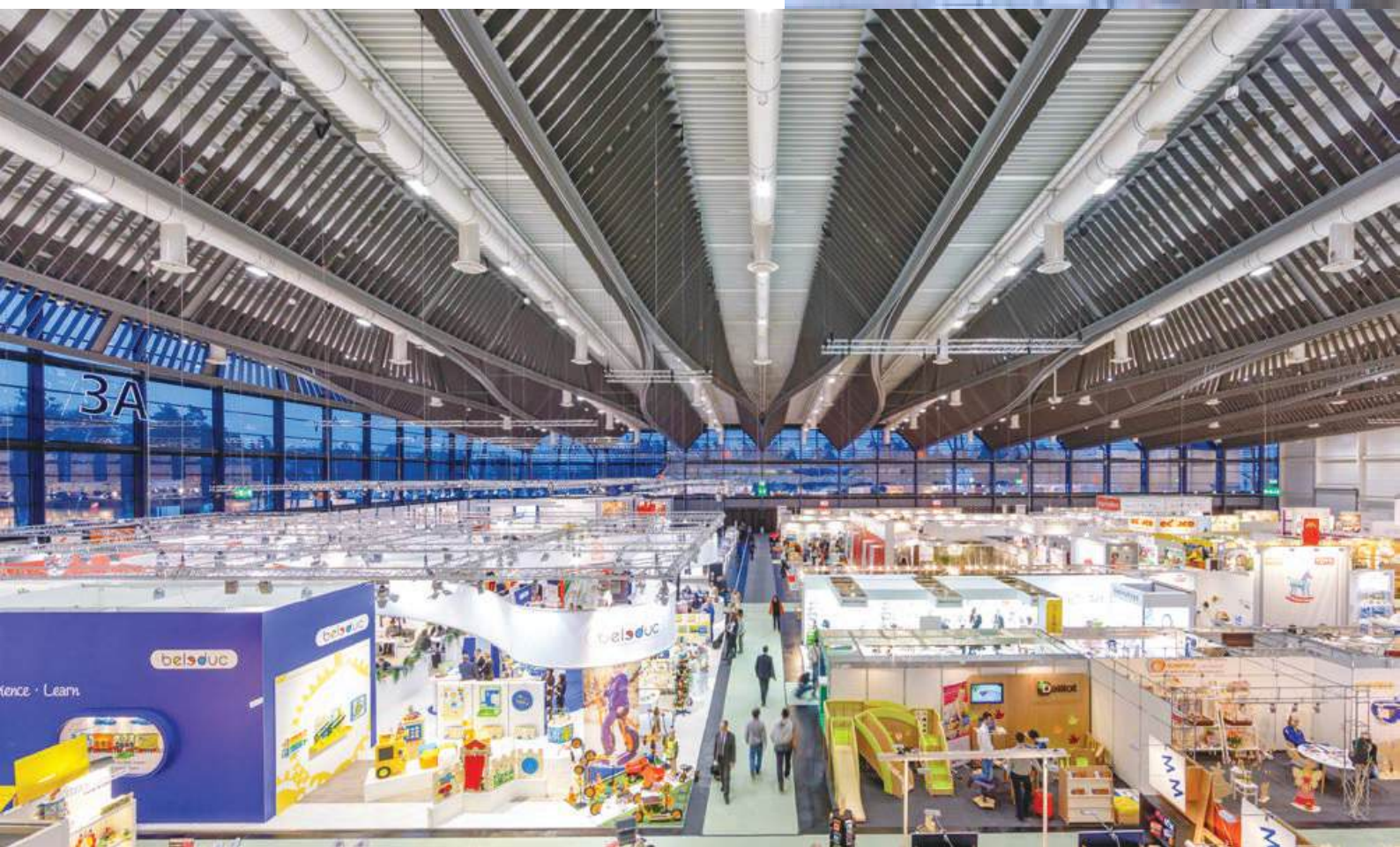
PUBLIC LIBRARY IN BAD VILBEL

The Bad Vilbel library construction project shows that coated structural elements can also be stored outdoors. FIRETEX®Platinum-120 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 Platinum Technology 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®Platinum-120 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.



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®Platinum-120 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®Platinum-120 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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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®Platinum-120. 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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OTHER AREAS OF EXPERTISE IN FIRE PROTECTION

FOR WOOD

FOR CONCRETE

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 - including protective liquid and powder, fire protection and resinous flooring - excel at combating corrosion and help customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Bridge & Highway, Energy, High Value Infrastructure, Manufacturing & Processing, Marine, Rail, Power and Water & Wastewater.

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protectiveeu.sherwin-williams.com

United Kingdom: +44 1204 556420
sales.uk@sherwin.com

Romania: +40 256 420 320
sales.balkan@sherwin.com

Sweden: +46 381 26104
cspm.sweden@sherwin.com

Switzerland: +41 44 936 77 77
cspmbubikon@sherwin.com

Italy: +39 051 770 612
cspm.italy@sherwin.com

Germany: +49 7042 109 4000
pm.kundenservice@sherwin.com

Spain: +34 96 121 89 80
pedidos.valencia@sherwin.com

Hungary: +48 882 817 420
cs.pm@sherwin.com

Poland: +48 886 342 873
cs.pm@sherwin.com

Other countries (English): +49 7042 109 4400
pm.customerservice@sherwin.com

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