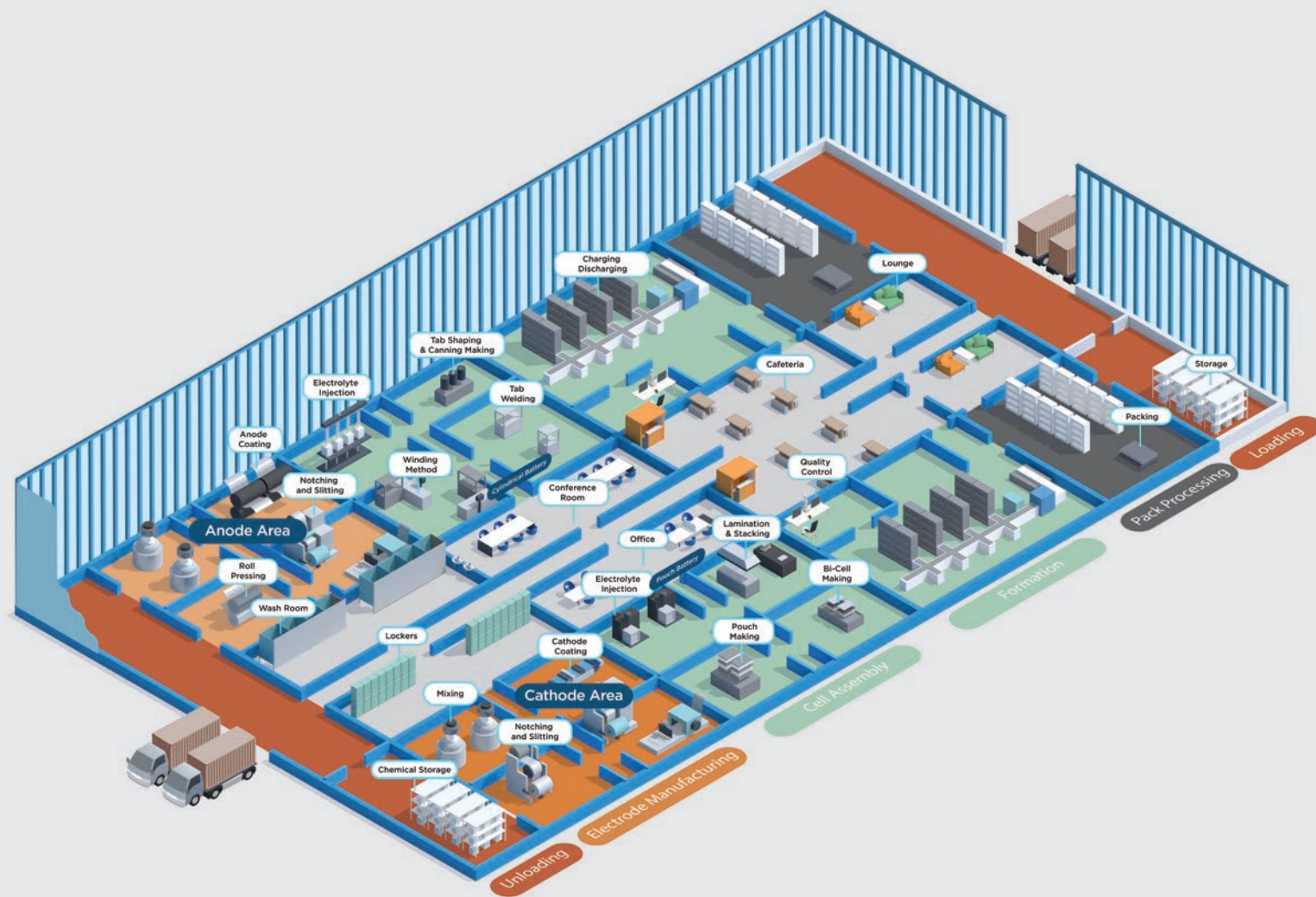


EV BATTERY MANUFACTURING

MANAGING RISK FROM THE FLOOR UP





Together, we're driving excellence – putting more EVs on the road, faster.

Sherwin-Williams is your trusted partner in fast-tracking the future of electric vehicle and battery innovation. We're committed to safety, quality, efficiency and sustainability, ensuring automotive and battery technology owners, contractors, architects and engineers can meet today's demands whilst pioneering tomorrow's EV milestones.

The purpose of this guide is to help you discover a reality where safety meets innovation, and your facility is well protected against fire hazards, chemical exposure and corrosion damage.

Our team of EV battery experts will partner with you to streamline processes, creating **SAFER, FASTER, SIMPLER projects, saving you time and money.**

**SHERWIN
WILLIAMS®** | HIGH
PERFORMANCE
FLOORING

Allow our experience in battery manufacturing to protect you.

When selecting floor coating systems, important variables must be considered, ranging from a facility's raw material storage to its slurry coating, cell assembly, and distribution areas.



Standard epoxy floors can deteriorate completely when exposed to N-Methyl-2-pyrrolidone (NMP). However, Sherwin-Williams have flooring systems that offer NMP resistance of up to 14 days.



Traditional epoxy systems can become very slippery due to carbon black deposits, so our systems are designed with a light texture to reduce slip potential and be easy to clean.



High abrasion resistance helps protect the concrete from AGV and AMR traffic that can prematurely wear traditional flooring systems.



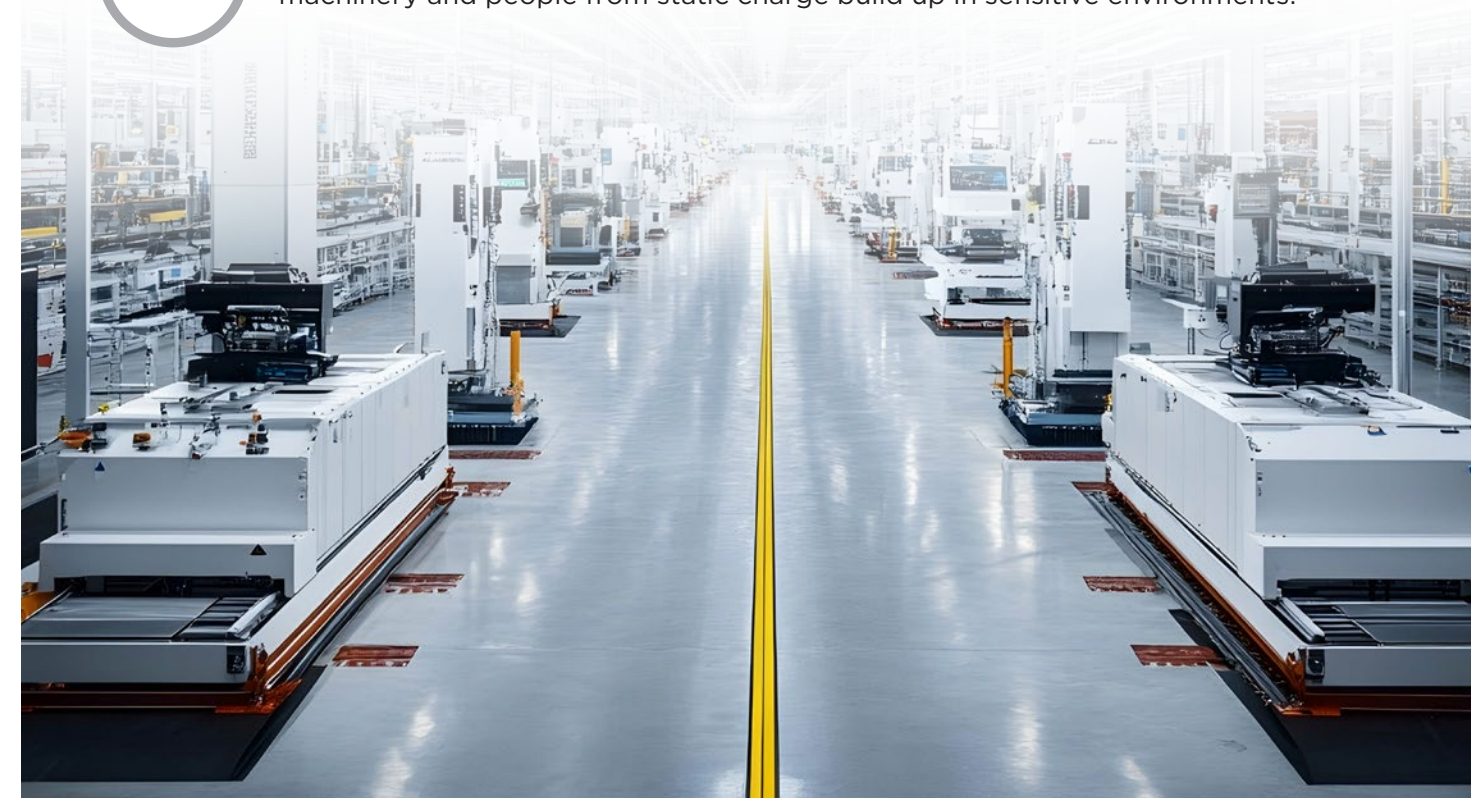
A moisture vapour barrier combined with an impermeable system shields the dryroom from moisture in the concrete. This helps to achieve a very low dew point and protects the quality of your battery.



Products can be applied to green concrete, reducing the required substrate cure time from 28 to 7 days, allowing for earlier installation and quicker site access to other trades.



Electro-Static Dissipative (ESD) flooring systems protect products, machinery and people from static charge build up in sensitive environments.



EV System Selection Guide

		7 day NMP resistance	14 day NMP resistance	ESD	Dryroom suitable	Advanced gloss finish	Satin finish	Heavy Duty	Very Heavy Duty
1	FASTOP ADVANCED NMP EV								
2	RESUFLOOR TOPFLOOR SL ADVANCED NMP EV								
3	RESUFLOOR SCREED ADVANCED NMP EV								
4	RESUFLOOR TOPFLOOR SL ESD NMP EV								
5	FASTOP SL ESD NMP EV								

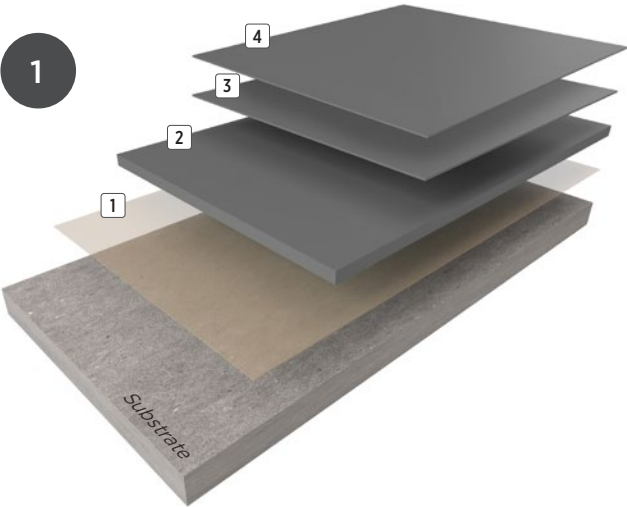
HIGH DURABILITY GLOSS SYSTEMS

FASTOP® ADVANCED NMP EV

FasTop Advanced NMP EV is a 3mm thick polyurethane cement, self levelling resin floor system with two highly chemical resistant topcoats providing a durable gloss finish. Specifically designed for EV battery manufacturing plants due to its resistance to NMP and carbon black but also suited to use in pharmaceutical, laboratories and chemical plants.

BENEFITS

- 14 day resistance to N-Methyl-2-Pyrrolidone (NMP)
- 14 day resistance to Dimethyl Carbonate (DMC)
- Very high chemical resistance to a broad range of chemicals
- Lightly textured profile reduces slip potential
- Easy to clean off carbon black and graphite
- Highly durable
- High gloss finish that lasts longer than traditional epoxy and PU topcoats.
- Low VOC
- Low emissions
- UV stable



- 4 Topcoat: **Resutile™ HTS**
- 3 Topcoat: **Resutile HPS**
- 2 Screed: **FasTop SL23**
- 1 Primer: **FasTop Multi Primer**

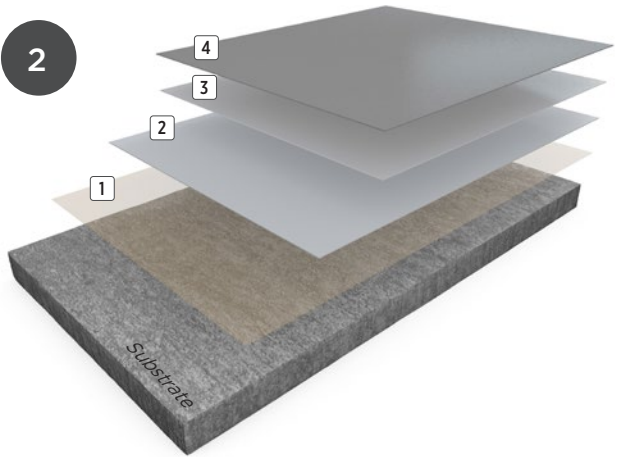
3mm

RESUFLOOR™ TOPFLOOR SL ADVANCED NMP EV

Resufloor Topfloor SL Advanced NMP EV is a 3mm thick epoxy self-levelling resin floor system with two highly chemical resistant topcoats providing a durable gloss finish. Specifically designed for EV battery manufacturing plants due to its resistance to NMP and carbon black but also well suited to use in pharmaceutical, laboratories and chemical plants.

BENEFITS

- 14 day resistance to N-Methyl-2-Pyrrolidone (NMP)
- 14 day resistance to Dimethyl Carbonate (DMC)
- Very high chemical resistance to a broad range of chemicals
- Resistant to AGV/AMR wheeled traffic
- Lightly textured profile reduces slip potential
- Easy to clean off carbon black and graphite
- High gloss finish that lasts longer than traditional epoxy and PU topcoats
- UV stable



- 4 Topcoat: **Resutile™ HTS**
- 3 Topcoat: **Resutile HPS**
- 2 Screed: **Resufloor SLX**
- 1 Primer: **Resuprime™ MVT** moisture barrier

3mm

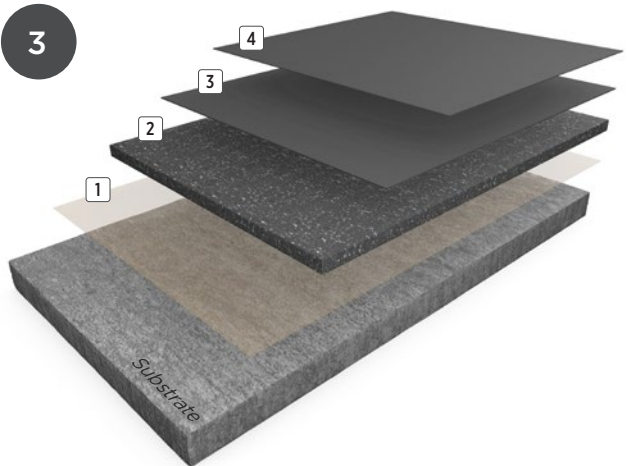
VERY HEAVY DUTY

RESUFLOOR™ SCREED ADVANCED NMP EV

Resufloor Screed Advanced NMP EV is a high strength epoxy screed system with two high chemical resistant topcoats providing a durable, gloss finish. Specifically designed for EV battery manufacturing plants due to its resistance to NMP, carbon black and AGV wheels. Also well suited to use in pharmaceutical, laboratories and chemical plants.

BENEFITS

- 14 day resistance to N-Methyl-2-Pyrrolidone (NMP)
- 14 day resistance to Dimethyl Carbonate (DMC)
- Very high chemical resistance to a broad range of chemicals
- Resistant to heavy AGV/AMR wheeled traffic
- Lightly textured profile reduces slip potential
- Easy to clean off carbon black and graphite
- Heavy duty system
- High gloss finish that lasts longer than traditional epoxy and PU topcoats
- Low emissions
- UV stable



- 4 Topcoat: **Resutile™ HTS**
- 3 Topcoat: **Resutile HPS**
- 2 Screed: **Resufloor Screed**
- 1 Primer: **Resuprime™ MVT** moisture barrier

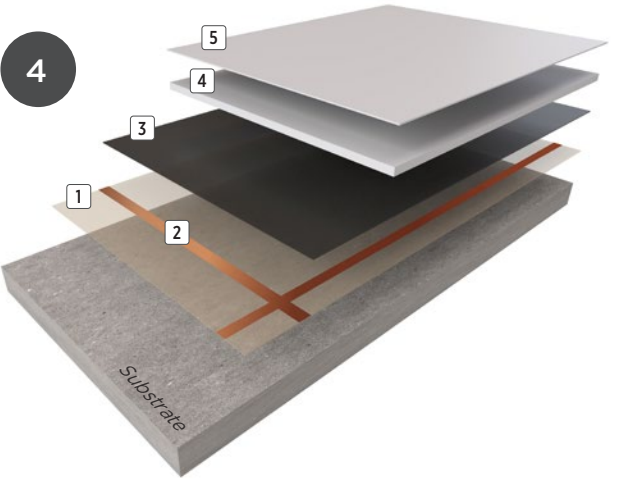
4 - 6mm

FASTOP® SL ESD NMP EV

FasTop SL ESD NMP EV is a unique 3mm thick static-dissipative polyurethane cement resin floor system with a highly chemical resistant topcoat. Specifically designed for battery manufacturing plants due to its combination of ESD performance and 7 day NMP resistance. Also well suited to use in pharmaceutical, laboratories and chemical plants.

BENEFITS

- 7 day resistance to N-Methyl-2-Pyrrolidone (NMP)
- 14 day resistance to Dimethyl Carbonate (DMC)
- Electro-static dissipative (ESD)
- High chemical resistance
- Lightly textured profile reduces slip potential
- Includes moisture vapour barrier for fast installation and ideal for dryrooms
- Easy to clean off carbon black and graphite
- Highly durable
- Satin finish
- UV stable



- 5 Topcoat: **Resutile™ SDS**
- 4 Conductive self-leveller: **FasTop SL ESD**
- 3 Conductive primer: **Resuprime™ ESD**
- 2 Earthing: **Copper tape**
- 1 Primer: **Resuprime MVT moisture barrier**

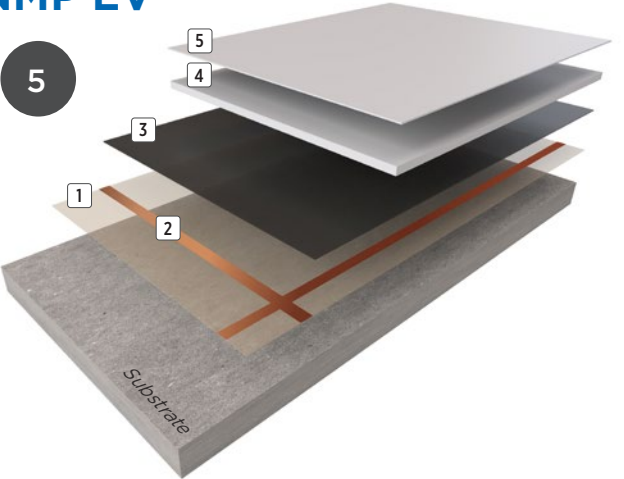
3mm

RESUFLOR™ TOPFLOOR SL ESD NMP EV

Resuflor Topfloor SL ESD NMP EV is a unique 3mm thick static-dissipative, self-levelling epoxy resin floor system with a highly chemical resistant topcoat. Specifically designed for battery manufacturing plants due to its combination of ESD performance and 7 day NMP resistance. Also well suited to use in laboratories, pharmaceutical and chemical plants.

BENEFITS

- 7 days resistance to NOMethyl-2-Pyrrolidone (NMP)
- 14 day resistance to Dimethyl Carbonate (DMC)
- Electro-Static Dissipative (ESD)
- High Chemical Resistance
- Lightly textured profile reduces slip potential
- Includes moisture vapour barrier for fast installation and ideal for dryrooms
- Easy to clean off carbon black and graphite
- Highly durable
- Satin finish
- UV stable



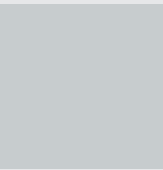
- 5 Topcoat: **Resutile™ SDS**
- 4 Conductive self-leveller: **Resuflor SL ESD**
- 3 Conductive primer: **Resuprime™ ESD**
- 2 Earthing: **Copper tape**
- 1 Primer: **Resuprime MVT moisture barrier**

3mm

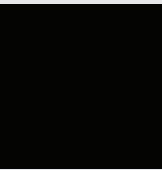
Colours for all FasTop and Resuflor NMP systems



Canada Grey



Light Grey



Black



Sandy Beige



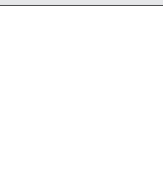
Rich Green



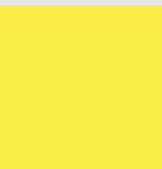
Regal Blue



Rotunda Red



White



Bright Yellow



Steel Grey



Charcoal



Tile Red

This reproduction approximates the actual colour. Factors such as the type of product, degree of gloss, texture, size and shape of area, lighting, heat, or method of application may cause colour variance. Substituting other manufacturers' colours may not be representative of our blends. Contact your Sherwin-Williams representative for details.



SHERWIN-WILLIAMS®

Up to 2 hours protection

It's not just fireproofing. It's futureproofing.

Sherwin-Williams **FIRETEX** series is a comprehensive range of intumescent coatings designed to provide long term service and critical fire protection to structural steel for up to 120 minutes, while meeting demanding construction speed and design aesthetic requirements.

The **FIRETEX** range of passive fire protection coatings have solutions optimized for application in shop or at the job site, ensuring that whatever the construction schedule, there is a **FIRETEX** material to meet your needs.

With a wide range of environmental accreditations, including third party environmental declarations (EPD) the **FIRETEX** range can contribute to green building programmes such as LEED, BREEAM, WELL and DGNB. The **FIRETEX** range of coatings is the trusted and reliable solution for your asset.



World class cellulosic
fire protection solutions

ULTRA-FAST DRYING INTUMESCENT PASSIVE FIRE PROTECTION

FIRETEX® FX6002



FIRETEX FX6002 is a unique and innovative patented technology. It delivers unparalleled speed of drying, together with an excellent aesthetic appearance and fantastic resistance to handling and construction damage to support design flexibility and creative use of structural steel surfaces in building design.

FIRETEX FX6002 extends the scope of protection to lighter steelwork than previously possible, whilst at the same time reduces the required thickness. Ultra-fast drying removes 'bottlenecks' in the paint shop. Its excellent mechanical durability minimises transport and construction damage as efficiently as it resists the challenges of a busy and congested working site.

- C1 to C3 service environments
- Tested to BS476 Part 20/21
- Assessed to ASFP Yellow Book 5th Edition
- Third party certified under UL Certificate BS-RC-0024
- Tested according to EN16623, including EN13381 parts 8 & 9
- Certified under ETA 20-1261



1 hour drying time



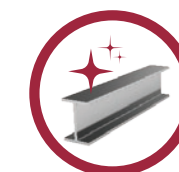
>20 years durability



Damage resistant



Adhesion tested



Aesthetic

DRYING TIME TO HANDLE

FIRETEX FX6002 - Dry to handle or overcoat in just one hour.

Apply and dry a 120 minute fire protection system for a hollow section in a single shift.

Two-pack
epoxy single-
coat system

Single-pack solvent based intumescent

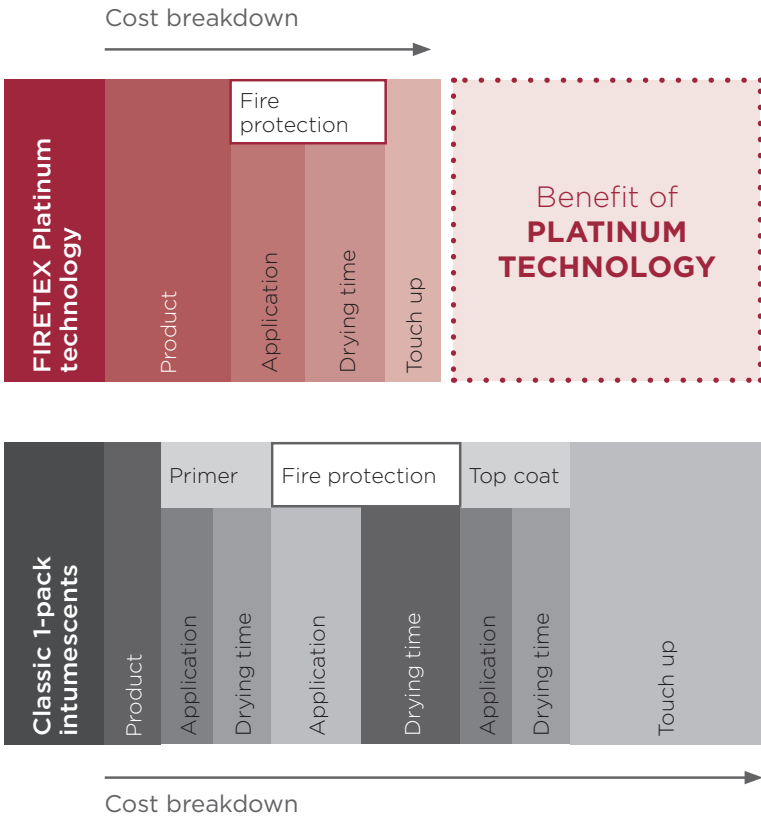
1 2 3 4 5 6 7 8 days

FIRETEX® PLATINUM

Originally launched in 2012, the FIRETEX Platinum range was truly innovative. Developed in collaboration with key industry partners the Platinum products represented a new generation of epoxy intumescent coatings for the cellulosic fire protection market.

Platinum 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.



IN-SHOP APPLICATION
Dries by chemical reaction meaning fast and predictable drying times

SOLVENT-FREE
Meets the requirements of DGNB, LEED and BREEAM

TOUGH AND DURABLE
Outdoor storage of the coated steel components is possible

CORROSION PROTECTION
Tested as a coating system for C5 very high according to ISO 12944-6

FIRETEX PLATINUM-30

The Economical One

The 2-pack epoxy resin-based fire protective coating benefits from the well-known advantages of the technology and is tailored to the fire-resistance rating up to R45. As an ultra-thin coating, FIRETEX Platinum-30 offers a considerable saving of material in comparison to FIRETEX Platinum for R30 requirements.

FIRETEX PLATINUM

The Innovative One

FIRETEX Platinum started as a genuine innovation and very quickly established itself on the market thanks to its outstanding product features. Since then, over one million square metres of steel have been coated with the 2-pack intumescent coating. FIRETEX Platinum has proven above all to perform particularly well for requirements from R45 to R90.

FIRETEX PLATINUM-120

The Persistent One

FIRETEX Platinum-120 completes the performance spectrum of the Platinum Technology. As a long-term performer, the intumescent coating attains maximum performance and lifetime with fire resistance rating of up to 150 minutes.



> R30

- Life expectancy > 25 years
- No primer and no top coat needed for outdoor application, type X
- Fast curing, transportable and ready to assemble in as little as 24 hours after application

> R60

- 100% solids
- Excellent corrosion protection according to ISO 12944-6
- High mechanical impact, shock and abrasion resistance, minimising transport and handling damage

> R90

- Cleanable surface by high pressure water jetting
- Flexible application with single or plural component airless spray equipment

> R120

- Many international approvals
- Free from halogens
- DGNB, LEED v4, BREEAM
- Free from solvents



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MANAGING RISK FROM THE FLOOR UP

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.

SHERWIN-WILLIAMS®

resinflooring.sherwin.eu
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LOCAL CONTACT

