



TECHNICAL DATA SHEET & PRODUCT INFORMATION

Insulating, intumescent, fire extinguishing, ignition barrier coating. Provides a high performance durable risk reduction and asset protection solution for a range of combustible surfaces.

TDS: F1ER_12.21

Racing Industry Solutions

Bushfire Response Vehicles

Mining Vehicle Risk Reduction

Pipeline & Culvert Protection

Transportation Vehicles

Tunnel Protection

PRODUCT DESCRIPTION

TEMPROTEX® F1ER is an high performance water based, fast drying, sprayable coating for use on car and truck bodies, plastic/composite panels, engine parts, flexible lines and hoses, HDEP, GRP, fibreglass, carbon fibre and almost any other composite surface. Heat insulating, vibration resistant, ductile, waterproof, nonflammable coating. Creates an ignition barrier on thermosets and other flammable, ductile items as well as reducing core temperatures.

FEATURES

TEMPROTEX® F1ER is specially formulated multipurpose product for fibreglass, carbon fibre, kevlar, Nomex, HDEP, PE and many more combustible surfaces. SMART Coatings® technology- liquid fires and vapour fire blocking properties.

- Creates revolutionary fire protection in extreme fire conditions
- Intumescent technology reacts during flareups for an extended protection times
- Exceptional fire extinguishing performance on liquid fires
- Fast drying for same day applications
- simple application by brush and roll or airless spray.
- Extreme exterior performance and water resistance.
- LOW VOC Water based

PRODUCT SOLUTIONS

- Fire Trucks and bush fire response vehicles – combustible surface protection
- Bus and truck engine bay ignition barrier solutions. Stops fires starting
- Risk reduction solutions for combustible components and car bodies in the race industry
- Mining truck, vehicles, and machinery ; risk reduction and ignition barrier solutions for combustible surfaces
- Ignition and thermal barrier, solutions for GRP, HDEP, PE, Fibreglass, Carbon fibre and a range of other plastics, cables, and composite materials.
- Thermal shock mitigation for concrete surfaces reduces the chance of early spoiling in rapid fire scenarios.
- Thermal insulation performance for composite materials reduces risk of structure integrity loss in fire scenarios.

CONDITIONS OF USE

Consult with your certifying body that the **TEMPROTEX® F1ER** system meets your project requirements prior to purchase. It is the responsibility of the purchaser to ensure that any product purchased from **EXFIRE** and its distributors will suit the purpose and/or will meet the requirements of the building code you are required to comply with.

EXFIRE recommends that application should be performed by a qualified painter and any airless spray application be done by an **EXFIRE** recognised applicator. Contact **EXFIRE** for more information.



FIRE EXTINGUISHING COATING TECHNOLOGY

LIMITATIONS

For compliant solutions **TEMPROTEX® F1ER** must be applied to bare surfaces. Any pre-primed surfaces are required to be sanded back to bare timber. or primer confirmed with **EXFIRE** as compatible.

TEMPROTEX® F1ER is applied at a higher film build than regular acrylics. The system has a slight grain in the texture of the dried finish. It is recommended that the finish be confirmed as suitable by the client prior to application.

TECHNICAL DATA

WATER BASED, NON HAZARDOUS EXTERIOR GRADE

LOW VOC: >20g/L

THINNER/ADDITIVES: water.

VISCOSITY: high viscosity

COLOURS: Black

PRIMERS: Not required, for instances where a primer may be used contact **EXFIRE** for more information.

TOP COAT: Not required, contact **EXFIRE** with any topcoats requirement questions

SHEEN/FINISH: Flat with slight texture DRUM SIZE: 7.5L and 19L plastic pails.

STORAGE CONDITIONS: Secure dry indoor area, between 10°C and 35°C, protect from freezing, and extreme heat

SHELF LIFE: 18 Months from manufacture in original sealed containers under recommended storage conditions

SAFETY: Ensure Appropriate use of protective clothing and compliance with local occupational health and safety regulations. See product SDS for more information.

Keep out of reach of children

TESTING AND APPROVALS

- SFI 54.1 Approved fire extinguishing coating
- Thermal Flame Barrier – SFI approved
- Vapour Fire Performance SFI approved
- ABYC 33.20.6 / Fuel Tank Fire Test – ISO 21487
- ASTM weathering performance compliance (various)
- ASTM E 84 class A rated – Non flammable coating

SPECIFICATION: TEMPROTEX F1ER - IGNITION BARRIER.



Ignition Barrier	Product	WFT	DFT	Coats	Theoretical spread rate
Plastics, foams & Composites SFI- FEC	TEMPROTEX® F1ER	900µm	500µm	Spray: 2 Coats @ 450µm WFT per coat	1.2m²/L @ 900µm WFT
Risk reduction solution	TEMPROTEX® F1ER	450µm	250µm	Spray: 1 Coat @ 450µm WFT per coat	2.4m²/L @ 450µm WFT

Project and solution specific specifications. Confirm with your certifying body that the proposed system will meet the performance requirements for your project. For further information, product specifications and advice contact **EXFIRE 1800 684 001**

APPLICATION

Surface Preparation: All surfaces must be clean dry and sound prior to application. Any gloss surfaces should be sanded prior to provide a suitable key. If unsure contact **EXFIRE**.

MIXING: Mix coating for a minimum of 3-4 minutes with a powered mixer prior to application, insuring to get the bottom and all sides of the drum until product is uniform in colour and consistency. Contents must be uniform at all times during the application process.

EQUIPMENT: Temprotex F1ER can be applied by brush, roller or airless spray.

BRUSH: Use top quality polyester/nylon blend brush-ware or similar.

ROLLER: 20mm polyester blend long nap roller recommended, subject to the type of substrate surface. Laying off a rolled surface immediately with a brush is recommended for finish purposes.

Airless Spray : Airless: Graco 1095 Tech Spray or equivalent

Gun: Graco HD texture gun p/n 241705

Use oversize tips: (Air-68SS/68PB, A/less-LTX525 or LTX531,

Filters: Can be removed from the gun and machine, pick up mesh can be left as a minimum

Sag resistance: 700 µm WFT on walls and 500 microns WFT on ceilings.

Spraying Temperatures: Min 12°C and rising Max - 35°C. Coating to be kept above 16°C - Exfire recommend a maximum of 500microns WFT per coat

Dry times: 4 hours at 25°C and 50% Relative humidity with cross ventilation. Make sure first coat is completely dry prior to applying any additional coats.

Drying conditions: Cross Ventilation always required. Use Dehumidifiers if humidity above 75%. Full cure and hardness reached after 21 days

Clean up: Thoroughly rinse application tools with water before paint is cured. Flush airless spray equipment out with water as soon as work ceases.

Repair: remove any loose coating, sand edges, re-apply to original coating thickness.

ADDITIONAL

Two coats required to meet SFI 54.1

Remove gun screens but not strainers: Clean equipment daily.

Dryer and warmer conditions with good airflow will speed up dry times

Wet Film Thicknes to DryFilm thickness is roughly 55%

Test only after complete cure is achieved

Thin sparingly 1% H2O equals 10ku drop

TEMPERATURE RE-COAT AND DRY TIMES

Do not apply if temperature is below 10°C or likely to fall below 10°C within 2 hours of application. Do not apply if relative humidity is above 85%

Re-coat time is 4 hours in ideal drying conditions of 24°C with sufficient air flow and a relative humidity below 50%. Lower temperatures and/or higher humidity will increase dry time.

Application should not take place in conditions which are deteriorating quickly, e.g. the temperature is falling or there is a risk of condensation forming.

MAINTENANCE REPAIR OF INSTALLED F1E SYSTEM

Damaged areas exposing the uncoated timber should be repaired immediately. Repair any damage to the substrate if required prior to re application of damaged area. Apply **TEMPROTEX® F1ER** to the damaged area at the originally specified thickness and as per the application requirements. Re apply approved topcoats if required.

DISCLAIMER: It is the user's responsibility to check that you have the latest technical datasheet available. Visit www.exfire.com.au or check with your local **TEMPROTEX® F1ER** Distributor or Representative as the information contained in this technical data sheet is modified from time to time in line with our continuous product development strategy. Any advice, recommendation, information, assistance or service provided by **EXFIRE PTY LTD** in relation to goods manufactured or distributed by **EXFIRE PTY LTD** or their use and application is given in good faith and is believed by to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by **EXFIRE PTY LTD** and its distributors is provided without liability or responsibility. **EXFIRE PTY LTD** products and/or systems can be expected to perform as indicated so long as applications and application procedures of the individual products are followed as recommended on the appropriate Manufacturer's Specification and Data Sheets.





MINING VEHICLES RISK REDUCTION



TRUCKS, BUSES & BUSHFIRE RESPONSE VEHICLES



PIPELINE, CULVERT & TUNNEL PROTECTION



RACING INDUSTRY SOLUTIONS

For any code compliance solutions always confirm with the certifying body prior that the **TEMPROTEX® F1ER** will meet their performance requirements. It is the responsibility of the purchaser to ensure the system is fit for purpose. **EXFIRE** can provide test reports, assessments to the certifying body and provide advice on the suitability of the system for your project. It is the responsibility

of the applicator to ensure all application guidelines are adhered to. **TEMPROTEX F1ER** is also utilised on Government and large infrastructure applications as well as a wide range of composite materials to reduce risk of ignition and flame spread. Contact **EXFIRE** to discuss any specific substrate protection, testing a combined system or application, or specialised project requirements.

APPLICATOR CHECKLIST

- Read the TDS in full. Ensure that you understand all aspects. Contact **EXFIRE** with questions prior to application.
- Ensure certifier approval of the system prior to application.
- Ensure all surfaces are clean, dry (below 12% moisture) and sound before application.
- Temperature and humidity are within recommended guidelines and the ambient temperature will not fall below 10oC for at least 2 hours after application.
- Mix coating for a minim of 3-4 minutes with powered mixer until product is uniform in colour and consistency.
- Ensure application equipment meets the minimum requirements.
- Ensure sufficient airflow to aid dry time
- Allow 21 days prior to top coating **TEMPROTEX® F1ER** with any approved water based acrylics.
- If you are unsure with this checklist do not proceed, contact **EXFIRE** to discuss

DISTRIBUTOR

For further information, contact sales



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For compliance projects always confirm the suitability of the system with the certifying body prior to order and application. For more information, test reports, specifications and advice contact the EXFIRE team to discuss your project.