

Cease-Fire Timber FR Coating System Application Instructions

The design and construction of buildings in bushfire prone areas provides many challenges. Building materials, such as timber, may ignite from direct flame contact, radiant heat, or the effects of burning brands and flying embers.

The Building Code of Australia recognizes this and by way of direct reference to Australian Building Standard, AS 3959, provides prescriptive guidance on what construction methods and materials can be used for the different categories or levels of bushfire attack. Most exposed at risk timber surfaces require the use of "Fire Retardant Timber" which, as defined in AS3959, are timbers with an applied paint or coating systems that has passed the rigorous testing demands of this standard.

The Cease-Fire Timber FR Paint System has been specially developed to meet the performance requirements for "Fire Retardant Timber" as defined in AS/NZS 3837 and the weather exposed durability test ASTM D2898 Method BE accelerated weathering as called for in AS3959. The Cease-Fire Timber FR is a Four (4) stage paint system, consisting of a primer, intumescent fire retardant coats (average of three to gain fire retardant performance requirements to the AS 3959 Bushfire Code) one (1) coat of clear sealer for total weather proofing of the fire retardant and then quality exterior top coats (2 coats required) The top coat is tint able to a wide range of exterior colours and available in Gloss and Low sheen with all major tinting bases available.

All four individual components MUST be used as directed for standards compliance to the AS 3959 Bushfire standard.

PLEASE NOTE:

COMPLIANCE TO AS 3959 CODE:

The Cease-Fire Timber FR System complies with the AS3959 Bushfire code up to the 29 kW/2 risk level BAL – 29 (No application of system in BAL 40 or BAL –FZ when compliance is required to the AS 3959 code)

APPLICATION OF THE SYSTEM – WARRANTY WARNING

The Cease Fire Timber FR system should only be applied by the Cease-Fire Approved Applicator. Due to the manufacturer having no control over the surface condition, state of repair or preparation of surface the PRODUCT WARRANTY WILL BE VOID if the Cease Fire product is applied by ANY non approved applicator.

**Always confirm use of this system on timbers other than pine timber and other material surfaces with your building inspector prior to purchase and application!
If use is proposed on surfaces other than raw soft wood timbers always check with Cease Fire directly prior to purchase.**

The Cease-Fire Timber FR allows designers and building owners to use cost effective and plantation grown soft wood timber, leaving the Australian hardwood forests for the future generations to enjoy.

The Cease-Fire Timber FR is of further benefit to **existing home owners** who may wish to enhance and update their existing bushfire protective measures.

The fire testing was conducted on standard radiata pine. This is the easiest species to burn, having a very light density, and therefore the results can be directly applied to most other higher density timber species.

Due to the some times complex nature of the BCA building fire standards approval process under AS 3959 – 2009 we strongly recommend that users consult with, as appropriate, Councils, Private Building Surveyors and Fire Service personnel for a project specific approval prior to product purchase and application of the product where such BCA standards are called for.

Please contact Cease-Fire Technologies for more information. Note - BCA Compliance is contingent upon Building Surveyor reviewing durability statements and allowing the use of a fire-retardant coating to make the timber substrates comply with the Fire Hazard Properties.

SPECIAL ADVICE: STORAGE LIFE – FIRE RETARDANT (Part 2)

Due to the complex nature and formulation of the Timber Fire Retardant (Part 2) this product **will naturally thicken in the can over time.**

AT ALL TIMES ONLY PURCHASE this product inside **10 weeks** before the application works are to be undertaken. **No product warranty or claims** apply for thickened product after this duration of storage time with a customer. Date of dispatch from factory is clearly nominated on the can.

Step No	Coating	Wet Film Thickness(total) [micron]	Volume solids [%]	Dry Film Thickness(total) [micron]
1	Timber FR Primer	85 µ	39	32 µ
2	Timber FR Fire Retardant	700 µ	50	350 µ (approx.)
3	Timber FR Top Coat	170 µ	38	65 µ

Step No	Coating	Wet Film Thickness(total) [micron]	Paint required (total) [m ² /litre]	Approximate number of coats
1	Timber FR Primer	85 µ	10 m ² /litre *	One coat
2	Timber FR Fire Retardant	700 µ	1.4 m ² /litre (approx.) *	Three to four coats **
2B	Clear Sealer	85 µ	15m ² /litre (approx.) *	1 coat
3	Top Coat	85 µ	10 m ² /litre	2 Coats

* Approximately.

** Airless spray is the preferred method of application. It will give a consistent and even film build. Product may also be rolled or brushed.

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VITAL APPLICATION NOTES:

The part two (2) of this system is a specialised FIRE RETARDANT COATING. in liquid form. It should never be viewed or treated as simply an architectural paint!

Always ensure that each coat of this NO 2 fire retardant is **TOTALLY CURED AND DRY OVER ALL COATED SURFACES prior to the application of the next coat.** (Including Clear Sealer (2B)) High humidity or rain conditions could demand days before the coating is correctly dried out. **DO NOT UNDERTAKE APPLICATION in such conditions of the part 2 of the system.** Follow all application instructions in this document. Failure to adhere to these application requirements will void all product warranties.

Never apply the Part 2 fire retardant to surfaces where water may be able to pool after rain during the multi coat application of the Part 2. Keep dry at all times during this process until sealer (part2B) has been applied and has dried completely. Always top coat immediately after sealer has dried, do NOT leave Part 2 fire retardant exposed to UV impact for long periods, it is NOT UV Resistant in its own right it is the sealer and the top coats that provide the long term durability of the system.

Timber FR Primer

Part 1 of 4 part system STEP 1: 1 Coat, 85 μ WFT

Product Description

- Water Based
- Specially designed for use direct to timber to prevent tannin stains and give long lasting performance.
- May also be used as a primer over existing paint (See Surface Preparation.)
- Recoatable the same day with Timber FR Fire Retardant (step 2).
- Easy to apply without messy spatter.
- Suitable for exterior or interior timber surfaces.
- Special formulation designed as Part 1 of a 3 Part Timber FR coating system.

Surface Preparation

New Timber

- Fill any holes with filler and allow to dry
- Sand and remove any dust.
- Ensure surface is clean, dry and free of grease, oil and wax.

Existing Paint

- Remove all soft, powdered, blistered, loose or flaking paint sand all surfaces to ensure good adherence is achieved.
- Clean and repair as for New Timber.
- Ensure that all Mould or fungal infected surfaces are treated to eliminate the possibility of recurrence.

Application

- Stir well using a broad flat panel in a scooping motion.
- Do not thin this product, as is it specially designed to meet the relevant fire tests
- Apply by brush, good quality roller, airless or conventional spray.
- Apply one coat allowing for coverage of 12 square metres per litre.
- Total Wet Film Thickness (WFT) of 85 microns required.
- Allow to dry for 20 – 30 minutes. High humidity or rain conditions may extend dry times always ensure the coating is dry before re coating.
- Recoat with first coat of Timber FR Fire Retardant after two hours or when primer is totally dry.
- In damp, cool or humid conditions, dry time will need to be extended.
- Do not paint if temperature is below, or likely to fall below, 10°C or if relative humidity exceeds 80% or when rain conditions are present or expected.

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Clean up: Water

Colour: White

Health Timber FR Primer is lead free providing a safe coating when dry.

Safety Ensure good ventilation during application and drying. The product is non-flammable. Keep out of the reach of children. Refer to the product Material Safety Data Sheet for full Safety information.

Shelf Life 24 months, provided correctly stored in a dry, cool and sheltered location.

Environment Do not tip unused paint or washings down drains. Dispose of waste using authorized collection procedures.

Disclaimer: *With Cease-Fire Technologies having no direct control over the application or future surface care practices of the products, any advice or information is given in good faith, in the belief it is reliable. Cease-Fire Technologies accepts no responsibility or liability arising from the use of its products whether or not in accordance with any advice, information, recommendation, specification or service. If the system is applied by any other party than that of a Certified Cease Fire Applicator no warranty in any form is offered.*

Intumescent fire retardant coating

Part 2 of 4 part system STEP 2: 3-4 coats, 700 μ total wet film build

Product Description

- Water Based
- A high-tech water based intumescent fire retardant coating.
- Non Toxic
- Low VOC
- Environmentally friendly
- Designed to be utilized on timber
- Easy to apply
- May be used both interior and exterior.
- Special formulation designed as Part 2 of a 3 Part Fire Retardant Timber coating system.
- This paint **MUST** be top sealed with Timber FR Topcoat.

Components

- Pigment: Non Lead
- Resin Binder: Modified Acrylic Polymer
- Volume: **Solids 50%** (White)

Application

- Stir well using a broad flat panel in a scooping motion.
- Do not thin this product, as is it specially designed to meet the relevant fire tests.
- Apply by brush, good quality roller, or airless spray.
- Apply three to four coats by brush or roller to achieve a minimum WFT of 700 microns.

Airless Spray Information:

Airless spray gun is the preferred method of application, rate of 3000 psi with 25-30 thou. tip recommended. Contractors should satisfy themselves on application rates subject to job in hand.

- Net coverage at the required 700 Wet film micron build is 1.4 SQR Mtrs Per Ltr. Coverage will vary depending on the profile of the surface and application method.
- Total Wet Film Thickness (WFT) of 700 microns required. 3 – 4 coats required to gain this total wet film build dependant on application method.
- Allow to dry **TOTALLY PRIOR TO NEXT APPLICATION** irrespective of drying duration.
- Dry time is approximate recoating after 4 – 5 Hrs. @ 25°C with good air ventilation.

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- In damp, cool or humid conditions, dry time will be extended **ALWAYS ALLOW TO DRY TOTALLY.**
- Do not paint if temperature is below, or likely to fall below, 10°C. Do not apply if rain is expected or in hot dry conditions.
- **Once applied never expose the Fire Retardant PART 2 to rain, water or high humidity conditions prior to the application and drying of the clear sealer – part 2B.**
- Apply Clear Sealer (1 coats) Fire Retardant PART 2 immediately it is totally dry. (1 coat). Do not leave the fire retardant exposed to weather or water impact.

Please note: There is an error on the Part 2 Fire Retardant can label that states that 300 psi is required for airless spray application. It is approximately 3000psi that is required for airless application. Cease-Fire Technologies apologise for this mis print.

Clean Up: Water

Colour: White

Health Fire Retardant coating is lead free providing a safe coating when dry.

Safety Ensure good ventilation during application and drying. The product is non-flammable. Keep out of the reach of children. Do not breathe vapour or spray. Do not smoke during application. Wear eye protection.

Refer to the product Material Safety Data Sheet for full information.

Shelf Life 6 months, provided correctly stored in a dry, sheltered location with a storage temperature of 25°C.

WARNING: Do not store in roof space or areas where temperature may exceed 40°C!

Environment Do not tip unused paint or washings down drains. Dispose of waste using authorized collection procedures.

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2 B: Intumescent fire retardant CLEAR SEALER COAT

Part 2B of 4 part system STEP 2B: 1 coat, 85 µ total wet film build

Product Description

- Water Based
- A high-tech clear sealer
- Non Toxic
- Low VOC
- Environmentally friendly
- Designed to be utilized as a paint sealer
- Easy to apply
- May be used both interior and exterior.
- Special formulation designed as Part 2B of a 4 Part Fire Retardant Timber coating system.
- This product must always be applied over the Part 2 Fire retardant final coat prior to application of the 2 Top Coats.

Components

- Pigment: Non Lead
- Resin Binder: Modified Acrylic Polymer
- Volume: **Solids 33%** (Clear)

Application

- Stir well using a broad flat panel in a scooping motion.
- Do not thin this product.
- Apply by brush, good quality roller, or airless spray.
- Apply one (1) coat by brush or roller.
- Allow to dry **TOTALLY PRIOR TO NEXT APPLICATION** irrespective of drying duration.
- Dry time is approximate recoating after 3 Hrs. @ 25°C with good air ventilation.
- In damp, cool or humid conditions, dry time will be extended **ALWAYS ALLOW TO DRY TOTALLY prior to application of top coat.**
- Do not paint if temperature is below, or likely to fall below, 10°C. Do not apply if rain is expected or in hot dry conditions.

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Clean Up: Water

Colour: Clear

Health Fire Retardant coating is lead free providing a safe coating when dry.

Safety Ensure good ventilation during application and drying. The product is non-flammable. Keep out of the reach of children. Do not breathe vapour or spray. Do not smoke during application. Wear eye protection.

Refer to the product Material Safety Data Sheet for full information.

Shelf Life 6 months, provided correctly stored in a dry, sheltered location with a storage temperature of 25°C.

WARNING: Do not store in roof space or areas where temperature may exceed 40°C!

Environment Do not tip unused paint or washings down drains. Dispose of waste using authorized collection procedures.

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Timber FR Topcoat

Part 3 of 3 part system STEP 3: 2 coats, 170 µ WFT

Product Description

- A water based high-tech coating, designed for both exterior and interior surfaces.
- Gives long lasting protection against Australia's severe outdoor weather conditions.
- Low VOC, environmentally friendly.
- Designed to be utilized on timber and in conjunction with Parts 1 and 2 of the Cease-Fire Timber FR coating system.
- Easy to apply
- The System should be used in most areas requiring a timber fire retardant protection.
- Special formulation designed as Part 3 of a 3 Part Fire Retardant Timber paint system.
- Recoats in 2 hours.
- Resists mould and fungal growth.

Components

- Water based
- Pigment: Non Lead and extremely durable.
- Resin Binder: Acrylic Polymer
- Volume: Solids 40% (White) – Varies dependant on colour.
- Toxicity: Dry paint is non toxic. Conforms to AS1647, Part 3.

Application

- Ensure PART 2 fire retardant coating is totally dry prior to top coating works.
- Stir well using a broad flat panel in a scooping motion.
- Thinning – Water – Use up to 100ml per litre to aid application if necessary in hot, dry conditions.
- Apply by brush, good quality roller, or airless spray.
- Observe the State Spray Painting regulations.
- Apply 2 coats for optimum coverage.
- Coverage Approximately 12 m² per litre (6 for total required coverage). Coverage will vary depending on the profile of the surface.
- Required Wet Film Thickness (WFT) of 170 microns required - 2 coats.
- Touch dry 20 minutes subject to weather conditions.

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- Recoat 2 Hrs. @ 25°C with good air ventilation; always allow to dry fully prior to recoating.
- In damp, cool or humid conditions, dry time will be extended, allow to dry fully.
- Do not paint if temperature is below, or likely to fall below, 10°C.
- Do not apply if rain is expected or in hot dry conditions.

Clean Up; Water

Colour; White – and a large range of colours, Gloss – Low sheen and all main bases.

Health Timber FR Topcoat is lead free providing a safe coating when dry.

Safety Ensure good ventilation during application and drying. The product is non-flammable. Keep out of the reach of children. Do not breathe vapour or spray. Do not smoke during application. Wear eye protection.

Refer to the product Material Safety Data Sheet for full information.

Shelf Life 24 months, provided correctly stored in a dry, cool and sheltered location.

Environment Do not tip unused paint or washings down drains. Dispose of waste using authorized collection procedures.

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