

# SPECIFICATION



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**PRODUCT:** FireZone 52 WHITE FIRE RESISTANT INTUMESCENT COATING

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**SUBSTRATE:** INTERIOR TIMBER SUBSTRATES

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**SPECIFICATION CODE:** FZ-52.1S

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**FIRE RATING:** Group1S to ISO-5660.2002 in accordance with NZBC C/VM2 2012 as tested on 9.5mm Douglas Fir Plywood being a Type 1 (most reactive) substrate. As tested by APL-Test reference: 1314/15/16B

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## PRODUCT DESCRIPTION

A water-based, thin film, one-component fire resistant coating containing 67% solids by weight, designed to protect timber substrates from fire by developing a thick char barrier when exposed to high temperatures or flame, producing low spread of flame and smoke developed indices. Tested to ISO5660.2002 in accordance with NZBC C/VM2 the FireZone 52 system has achieved a Group1S rating on uncoated, 9.5mm Douglas Fir Plywood being a Type 1 substrate in accordance with NZBC C/VM2 Amendment 4 Table A.2. The system comprises one coat of FireZone 52-AP (adhesion primer), two coats of FireZone-52, and one or two coats of approved acrylic top coat.

## PRODUCT CHARACTERISTICS

**FireZone 52-AP Adhesion Primer** is an acrylic sealer binder formulated for application under FireZone 52 to improve adhesion across a wide range of substrates including timber, plaster board, fibrous plaster, gypsum plaster and previously painted substrates.

**FireZone 52 Basecoat** is a white intumescent coating capable of providing a fire resistant barrier on interior timber linings. **FireZone 52 1S** system is suitable for residential, commercial and industrial projects, for both new and refurbishment applications.

## MATERIALS

FireZone 52 is a non-toxic, water based fire resistant white pigmented coating. All FireZone products are manufactured from high-grade materials to rigid specifications. As we have no control over the conditions under which our products are transported, stored, handled or used, customers are advised to check them before use. Customers must read the manufacturer's standard terms and conditions of sale. All coating systems used are to be FireZone products, prepared, mixed and applied in accordance with the relevant label instructions, data sheets, and specifications.

## THINNER / ADDITIVES

Not permitted

## COLOURS

White. May be top coated with standard acrylic topcoats to desired finish colour.

## SHEEN

Low Sheen

## LIMITATIONS

- FireZone 52 is approved for interior use only.
- The manufacturer has tested FireZone 52 fire resistant coating system to ISO5660.2002, in accordance with NZBC C/VM2. Contact Zone Architectural Products Ltd for more information.
- Ensure the substrate is appropriate and correct for application of FireZone 52.
- Consult the project fire engineer to confirm and that the complete system will achieve the required fire rating.
- Do not apply any stains or other coatings to the substrate without consulting Zone Architectural Products Ltd

Zone Architectural Products Ltd is not responsible for determining the regulatory requirements with respect to passive fire performance standards of the elements and buildings on which it is used.

## APPLICATION

**Application is by APPROVED APPLICATORS only.**

FireZone 52 must be applied by airless sprayer. Power mix FireZone 52 for a minimum of 5 minutes, working from bottom to top of pail, to ensure a smooth and consistent product prior to application. Ensure that product is mixed during application so no settling occurs.

### SPRAY EQUIPMENT

- Pump: For best results use a piston pump airless spray with a minimum 4 litres per minute rating, at 3000psi.
- Tip: 13 – 19, or similar.
- Filter: 60 mesh
- Pressure: 3000 PSI or higher
- Hose: Use minimum size of 10mm (3/8") airless spray line for the first 15 meters from pump.

Recommended dry film thickness (DFT) depends on the substrate and the level of protection specified. See test data for recommendations, or contact Zone Architectural Products Ltd for technical assistance.

## APPLICATION CONDITIONS

Temperature of substrate and application must be at least 10°C and rising. The recommended temperature range for application is between 15°C and 25°C. Do not apply if temperature will fall below 10°C within two hours of application. Do not apply when relative humidity is at or above 85%. At all times protect the coating from moisture damage. It is the sole responsibility of the applicator to ensure that FireZone 52 has been applied in accordance with the specification. Application should not proceed if surface or air temperatures exceed 30°C.

## WORKMANSHIP

### GENERAL

In all respects these are deemed to be those methods, practices and techniques contained in AS/NZS 2311 - Guide to the Painting of Buildings. All work is to be carried out by suitably qualified and approved personnel familiar with the FireZone coating systems and techniques specified.

### APPROVED APPLICATORS

FireZone coating systems must only be applied by Approved Applicators. Refer to Zone Architectural Products Ltd for a list of current approved applicators.

### ADJACENT SURFACES

Protect all adjacent surfaces by way of masking and drop cloths, clean up any drips runs or spills immediately, do not allow to dry.

### STANDARD OF FINISH

Prepare samples of finished work, and obtain the client approval prior to commencing full project application. Apply the product to the sample using the same application method that will be used to complete the project. Ensure that sample patches are done on a sample of the project substrate that is able to be sent for approval. Check that the gloss, colour and opacity of the applied product are acceptable.

## HEALTH & SAFETY

All work carried out under this specification shall be in tradesman like manner, with due regard to prevention of contamination of the site and associated work. Appropriate steps are to be taken to protect the health and safety of any person who has reason to be on site. Refer to the governing Health and Safety regulations. Minimize hazards on site by using the proper trade approved equipment and techniques. Ensure the appropriate protective clothing and equipment has been supplied and is used correctly. Refer to product material safety data sheets and product data sheets for information on appropriate PPE.

### LEAD / ASBESTOS

Existing coatings may contain lead and or Asbestos. Test surfaces accordingly. All necessary precautions must be taken with existing painted surfaces that contain lead or asbestos. Consult with local authorities for instructions on the removal, treatment and disposal of contaminants.

## SURFACE PREPARATION

**FireZone-52 Basecoat must be applied over FireZone 52 Adhesion Primer to conform to the test conditions.**

### PREPARATION - TIMBER SUBSTRATE

Lightly sand, if required, to provide a smooth surface suitable for accepting application of an acrylic coating. Fill any defects with an appropriate proprietary filling compound, sand smooth and flush with the surrounding surface. Perform an adhesion test to ensure the surface is compatible with FireZone-52.

### CLEAN SURFACES

Clean down all surfaces to be treated to remove all evidence of contaminants

### SUBSTRATE MOISTURE CONTENT

Moisture content of timber MUST be below 15%.

## COATING SYSTEM - INTERIOR TIMBER SURFACES

	Product	Data Sheet	Theoretical Spread Rates**	Wet Film Thickness	Dry Film Thickness***
<b>1<sup>st</sup> PRODUCT Sealer Undercoat</b>	FireZone 52 AP Adhesion Primer*	FireZone 52 AP Adhesion Primer	10 m <sup>2</sup> /litre	100 microns	50 microns
<b>2<sup>nd</sup> PRODUCT Intumescent Basecoat</b>	FireZone 52 Basecoat	FireZone 52 Basecoat	2.8 m <sup>2</sup> /litre	360 microns	250 microns
<b>3<sup>rd</sup> PRODUCT Topcoat****</b>	Approved Acrylic	Manufacturer data sheet	Refer to manufacturer	Refer to manufacturer	Refer to manufacturer

\*Timbers such as cedar that are relatively high in resin should be sealed with an appropriate blocking primer, as approved by Zone Architectural Products Ltd.

\*\* Practical spread rates will vary from the quoted theoretical spread rates due to factors such as application conditions, surface roughness and porosity.

\*\*\*Ensure that the correct DFTs are achieved.

\*\*\*\*FireZone 52 must be top coated with approved acrylic topcoats to improve serviceability. Ensure that all topcoats are approved in writing by Zone Architectural Products Ltd

## RECOAT AND DRY TIMES

Recommended recoat time of 6-8 hours is quoted for an ambient temperature of 25 °C and 50% relative humidity. Ensure there is adequate free flowing ventilation and enough time allowed between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where applying another coat of FireZone does not cause a lack of adhesion or cracking / deformation of the surfaces. Protect surfaces from being exposed to direct sunlight or excessive heat, or low temperatures during the drying period. It is not recommended to sand between coats. Drying and re-coating times will vary with actual dry film thickness, temperature, relative humidity and ventilation. Please refer to product data sheets which are available at [www.zone.net.nz](http://www.zone.net.nz)

## GENERAL

FireZone 52 has been designed for internal use on timber substrates. The expected life of the system is dependent on individual site conditions, but is expected to be not less than 15 years, with maintenance and recoat of the top coat expected at 5-7 years. A fitness for purpose warranty reflecting this will be issued on request of the Approved Applicator.

Should the surface described in this specification be different to what is being used on the project, refer to the client for direction. Spread rates are theoretical. Notwithstanding good application practice, some minor DFT variance can be expected, with a greater thickness occurring in internal angles and on substrates with a textured profile. Protect coated surfaces from dust contamination during and within 6 hours of application. This specification should be read in conjunction with the manufacturer's recommendations contained in the relevant data sheets, SDS, and application guidelines issued from time to time.

## CERTIFICATION

For work that requires certification ensure that the contract details are submitted to Zone Architectural Products Ltd prior to commencing application. Contact third party inspector to verify dry film thickness of completed works for final certification as required. Refer to project manager, main contractor, architect or manufacturer for details.

Intumescent coating certificates can be issued on completion of application to support code compliance.

## CHECKLIST

<input type="checkbox"/>	<b>TEMPERATURE</b>	Is temperature within limits (10°C - 30°C)
<input type="checkbox"/>	<b>HUMIDITY</b>	Is the relative humidity less than 85%?
<input type="checkbox"/>	<b>CONSISTENCY</b>	Are the contents thoroughly mixed?
<input type="checkbox"/>	<b>MOISTURE</b>	Is the moisture content of the timber below 15%?
<input type="checkbox"/>	<b>SURFACE</b>	Are all substrates clean, dry and sound and correct for application of FireZone 52? Has an adhesion test and sample of FireZone-52 been completed?
<input type="checkbox"/>	<b>COLOUR</b>	Has gloss, colour and opacity been checked and approved on samples?
<input type="checkbox"/>	<b>MEASUREMENT</b>	Correct quantities available to complete in accordance with minimum spread rate? Wet film comb on site?
<input type="checkbox"/>	<b>SAFETY</b>	MSDS on site and health & safety measures in place
<input type="checkbox"/>	<b>NEED HELP?</b>	Phone: 0800 508800 Email: <a href="mailto:info@zone.net.nz">info@zone.net.nz</a> Website: <a href="http://www.zone.net.nz">www.zone.net.nz</a>

**DISCLAIMER:** Any advice, recommendation, information, assistance or service provided by Zone Architectural Products Ltd is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Zone Architectural Products Ltd by any condition or warranty implied by Government Act or Local Authority Ordinance void or prohibiting such exclusion limitation or modification. Coating systems can be expected to perform as indicated on the specification so long as applications and application procedures of the individual products are followed as recommended on the appropriate product data sheets. Please note that this document is only valid for 60 days from the date of issue. This specification should be read in conjunction with the product data sheets specified within this document.