

# SPECIFICATION

**PRODUCT:** FireZone 92 - FIRE RESISTANT CLEAR COAT SYSTEM

**SUBSTRATE:** INTERIOR TIMBER – PREVIOUSLY VARNISHED WALL & CEILING LININGS

**SPECIFICATION CODE:** FZ-92.PV

**FIRE RATING:** Group 1S in accordance with NZBC Clause 3.4(a) as tested on 20mm spruce being a Type 2 substrate. Test Reference: 2013–Efectis-R0341c. European Classification to EN13501-1:2007 as per MBIE guidance 30 March 2015.

## SPECIFICATION SELECTOR

Use this table to ensure that this is the correct specification for your intended use.

Substrate	Standard	Added Durability (Double Topcoat)
New Timber	FZ-92	FZ-92.2TC
Previously Stained Timber	FZ-92.PS	FZ-92.PS.2TC
Previously Varnished Timber	<b>FZ-92.PV</b>	FZ-92.PV.2TC

## PRODUCT DESCRIPTION

FireZone 92 is a clear, fire resistant coating system designed to protect timber substrates from fire by developing a thick char barrier when exposed to high temperatures or flame. Tested to EN13501-1:2007 in accordance with NZBC Clause 3.4(a), FireZone 92 system has achieved a B-s2-d0 European reaction to fire classification rating on uncoated, 20mm spruce timber with a density of approx. 460kg/m<sup>3</sup>, being a Type 2 substrate in accordance with NZBC C/VM2 Amendment 4, Table A.2.

The FZ-92.PV system comprises of one coat of adhesion primer, two coats of water based intumescent basecoat and one coat of water based topcoat which expands the range of conditions where the system can be used.

## PRODUCT CHARACTERISTICS

**FireZone 92-AP** is water based, clear, adhesion primer for application over suitably prepared existing stains or clear coats. To be used when applying the FireZone 92 intumescent system over existing stains or clear coats.

**FireZone 92-BC** is a water based, clear intumescent basecoat, capable of providing a fire resistant barrier on interior timber linings.

**FireZone 92-STC and FTC** are water based, clear finish topcoats, designed to provide serviceable and protective finishes to the FireZone 92 system available in Satin finish (FZ92-STC) and Flat finish (FZ-92 FTC).

**FireZone 92** system is suitable for interior residential, commercial and industrial projects for both new and refurbishment applications. The system must be applied complete and no substitutions can be applied for any part of the system.

## MATERIALS

All products are manufactured from high-grade materials to rigid specifications. As there is no control over the conditions under which these 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

Thinning of FireZone products is not recommended. Do not use additives

## CLEAN-UP

Clean up with water

## COLOURS

Clear

## SHEEN

Satin or flat

## LIMITATIONS

- FireZone 92 system is approved for interior use only. It is not suitable for use in wet or high humidity areas
- The manufacturer has tested the FireZone 92 fire resistant coating system to EN 13501-1:2007, in accordance with NZBC Clause 3.4(a). Contact Zone Architectural Products for further information
- Ensure that the intended substrate is suitable for use with FireZone 92 for thickness, density and type i.e. 12mm or thicker timber that is 460kg/m<sup>3</sup> or denser
- Consult the project fire engineer to confirm that the application of FireZone 92 will achieve the required fire ratings
- Do not apply any stains or other coatings to the substrate without consulting Zone Architectural Products
- Dark coloured stains or dark timbers may result in reduced clarity of the FireZone 92 system and result in a cloudy or white appearance

Zone Architectural Products 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 and these regulations may change from time to time. It is strongly suggested that before this coating is specified, its use is checked with a Fire Engineer to determine its suitability to the NZBC applicable at that time.

## APPLICATION

Ensure FireZone products are stirred as directed immediately prior to and during application. Lightly agitate or stir FireZone Adhesion Primer. FireZone Basecoat must be mechanically stirred for a minimum of 5 minutes. FireZone Topcoats should be stirred for 2-3 minutes using a clean paint stirrer. Concentrate on the bottom of the pail moving to middle and top. Do not dilute or thin FireZone products without prior written instruction from Zone Architectural Products.

**FireZone 92** must be applied by Zone **APPROVED APPLICATORS**

- Refer to individual component product data sheets for mixing requirements and specific application information

### SPRAY EQUIPMENT

- FireZone 92 may be applied by spray
- Refer to FireZone 92 application data sheet for further information

### BRUSH / ROLLER

- FireZone 92 may be applied by brush and/or roller
- Refer to FireZone 92 application data sheet for further information

## APPLICATION CONDITIONS

**ALWAYS undertake an on-site sample of the product and obtain client/architect approval before proceeding. Ensure the opacity and finish is acceptable. If in doubt contact the supplier.**

- FireZone 92 system components, room and substrate temperature at application must be at least 15°C and rising. The recommended temperature range for application is between 18°C and 27°C. Do not apply if temperature will fall below 15°C within two hours of application. Application should not proceed if the surface or air temperature exceeds 30°C
- Ensure that air temperature, humidity and substrate moisture levels are checked and recorded at regular intervals throughout the application
- Ensure there is adequate "through ventilation" in all areas where application will occur. Airflow is important to ensure the product cures correctly
- Maximum relative humidity for application is 70%
- The use of forced air heaters and fans may be required to ensure the environment is suitable for application. Do not overheat
- Ensure substrate moisture levels are less than 15%
- Ensure product is always stored and transported between 10 and 25 degrees Celsius
- The use of fans, humidifiers and heaters is recommended to increase airflow

It is the sole responsibility of the applicator to ensure that the FireZone 92 system has been applied in accordance with the specification.

## 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 coating systems and techniques specified.

### APPROVED APPLICATORS

This coating system must only be applied by Zone Approved Applicators. Refer to Zone Architectural Products 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 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 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 is on the site for any reason. Refer to the governing Health and Safety regulations. Minimise 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. Ensure that all people in the immediate vicinity are evacuated unless they are wearing the appropriate protective equipment and clothing. Do not apply this product without consulting the safety data sheets and ensuring that all protective measures are taken to protect all people and animals in the vicinity of the application.

## SURFACE PREPARATION

**FireZone 92 system can be applied to previously varnished or clear coated timber substrates that have been suitably prepared and have been primed with FireZone 92-AP adhesion primer. When coating existing varnish or clear coats please ensure the compatibility of the existing coating with the FireZone 92-AP primer.**

### PREPARATION – PREVIOUSLY VARNISHED TIMBER SUBSTRATE

Fill holes, cracks and surface imperfections with an appropriate filler. Sand any filler to be flush and uniform with adjacent surface thoroughly sand the existing coating to remove any surface blemishes and to promote inter-coat adhesion. Ensure the substrate and existing varnish or clear coat is compatible with the FireZone 92 coating system and apply the full system with **no** substitutions. Do not proceed with full project application unless a sample patch has been finalized and accepted by the client.

### CLEAN SURFACES

Sand lightly with fine sandpaper (P240-P320) between coats to promote adhesion and remove nibs and dust particles. Thoroughly clean all surfaces of all dust and other contaminants by wiping down with a clean dust free tack cloth. Ensure that all areas that have been exposed to human hand contact are thoroughly cleaned of all oils etc.

### SUBSTRATE MOISTURE CONTENT

Moisture content of timber must be below 15%

### SUBSTRATE TEMPERATURE

Substrate must be between 15°C and 27°C

## COATING SYSTEM - INTERIOR TIMBER SURFACES – PREVIOUSLY VARNISHED TIMBER

	Product	Data Sheet	Theoretical Spread Rates*	Wet Film Thickness (WFT)**
<b>1<sup>st</sup> COAT Adhesion Primer</b>	FireZone 92-AP	FireZone 92-AP - PDS	12 m <sup>2</sup> /litre	83 microns
<b>2<sup>nd</sup> COAT Intumescent Basecoat</b>	FireZone 92-BC	FireZone 92-BC - PDS	10-12 m <sup>2</sup> /litre	83 microns
<b>3<sup>rd</sup> COAT Intumescent Basecoat</b>	FireZone 92-BC	FireZone 92-BC - PDS	10-12 m <sup>2</sup> /litre	83 microns
<b>4<sup>th</sup> COAT Topcoat</b>	FireZone 92-STC OR FireZone 92-FTC	FireZone 92-STC - PDS OR FireZone 92-FTC - PDS	10-12 m <sup>2</sup> /litre	83 microns

The above described system has been assessed to achieve a Group 1S in accordance with NZBC Clause 3.4(a) as tested on 20mm spruce.

\*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 WFT thickness is achieved.

**RECOAT AND DRY TIMES at 15- 20°C ambient temperature and 55% relative humidity with adequate airflow. In higher humidity and / or colder temperatures, increase recoat times to 8 hours.**

	FireZone 92-AP Adhesion Primer	FireZone 92-BC Basecoat	FireZone 92-STC or FTC Topcoat
Touch dry after	1 hour	1 hour	2 hours
Hard dry after	4 hours	4 hours	4 Hours
Re-coat time (min)	4 hours	4 hours	4 hours
Re-coat time (max)	N/A	N/A	N/A
Curing	20 days	20 days	20 days

Ensure there is adequate free flowing ventilation and enough time allowed between successive coats to permit proper drying. Ensure basecoat is fully clear before application of topcoat. 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 does not cause a lack of adhesion or cracking / deformation of the surfaces. Protect surfaces from being exposed to direct sunlight, excessive heat, low temperature contamination or humidity during the drying period. Drying and re-coating times will vary with actual dry film thickness, temperature, relative humidity and ventilation. Protect coated surfaces from dust and contamination during and within 4 hours of application. Protect coated substrates appropriately if block stacking for transport and to ensure that damage to the coating will not occur. Please refer to product data sheets at [www.zone.net.nz](http://www.zone.net.nz)

### CAUTION

The correct temperature, substrate moisture level, relative humidity and airflow must be maintained throughout the application/drying/curing period of FireZone 92. In addition, each coat must be allowed to dry adequately prior to recoating, especially between the second basecoat and the topcoat. Failure to do so may lead to the product not curing correctly which may affect its hardness, clarity or other attributes.

It is the applicator's responsibility to ensure all application conditions are in line with the specification.

## GENERAL

FireZone 92 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 topcoat expected at 5-7 years. A fitness for purpose warranty reflecting this will be issued on request of the Approved Applicator. The substrate must not be modified in any manner unless the supplier is consulted and approves the modification in writing as the fire rating may be compromised by modification including over coating.

Should the surface described in this specification be different to that which 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.

This specification should be read in conjunction with the manufacturer's recommendations contained in the relevant product data sheets, safety data sheets and application guidelines issued from time to time.

## CERTIFICATION

Approved Applicators are responsible for project specification and certification. It is the applicator's responsibility to ensure that they have applied the coatings in accordance with the project specification and the relevant instructions and data sheets. The applicator must keep accurate records detailing application is in accordance with the specification. Refer to project manager, main contractor, architect or manufacturer for details. Intumescent coating certificates can be issued on completion of application and once applicator's QA has been sighted and passed as acceptable by Zone to support code compliance.

## CHECKLIST

<input type="checkbox"/>	<b>STORAGE</b>	Have the products been stored and transported correctly at all times (10°C - 25°C)?
<input type="checkbox"/>	<b>TEMPERATURE</b>	Is temperature within limits (15°C - 27°C)?
<input type="checkbox"/>	<b>HUMIDITY</b>	Is the relative humidity less than 70%?
<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>SUBSTRATE</b>	Is the timber new, uncoated, 12mm or thicker and 460kg/m <sup>3</sup> ?
<input type="checkbox"/>	<b>SURFACE</b>	Are all substrates clean, dry, sound, and correct for application of FireZone 92?
<input type="checkbox"/>	<b>COLOUR</b>	Has gloss, colour and opacity been checked and approved on samples prior to full application?
<input type="checkbox"/>	<b>MEASUREMENT</b>	Are the correct quantities available to complete in accordance with minimum spread rate? Is a wet film comb on site?
<input type="checkbox"/>	<b>SAFETY</b>	Are Safety Data Sheets on site and Health & Safety measures in place?
<input type="checkbox"/>	<b>NEED HELP?</b>	Phone: 0800 508 800 Email: info@zone.net.nz Website: www.zone.net.nz

**DISCLAIMER:** Any advice, recommendation, information, assistance or service provided by Zone Architectural Products 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 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 valid for 60 days from the date of issue and is subject to change without notification. This specification should be read in conjunction with the product data sheets specified within this document.