

NCC Provision A2.2(4): Performance Solution

The use of the Fireshield CodeMark to achieve a Group 1 equivalent rating to timber substrates simplifies the NCC Provision A2.2(4) to demonstrate compliance with the Performance Requirement CP4: Safe Conditions for Evacuation. By completing this form the PBDB, Analysis, Evaluation and Final Report are all covered and can be submitted to Building Surveyors and BCA authorities to demonstrate compliance with CP4 and the Fireshield COC RM30071.

Complete all fields coloured below and submit completed form.

1. PERFORMANCE BASED DESIGN BRIEF

The PBDB outlines the proposed use of the Fireshield coating with input analysis from GlobalMark and the CodeMark Certificate RM30071. The brief identifies the relevant NCC provision CP4, includes reference to the non relevant DTS provision and the use of the CodeMark Certificate to demonstrate compliance with CP4.

Project Name	
Project Address	
Performance Requirement	NCC 2019 CP4: Safe Conditions For Evacuation and an average specific extinction area of less than 250 m ² /kg giving a Group 1 equivalent rating to timber surfaces using Fireshield coatings. CP4 applies to linings, materials and assemblies in Class 2-9 Buildings
DTS Not Applicable	NCC 2019 C1.10 Fire Hazard Properties cannot be applied.
Compliance with CP4	Evidence of compliance using CodeMark Certificate RM30071 expiry 12/09/2025
Location + Group Rating	
Timber Substrate Species	

2. ANALYSIS + EVALUATION

GlobalMark has issued the Fireshield CodeMark RM-30071 after extensive analysis which demonstrates compliance with the Performance Requirement CP4 and a Group 1 equivalent fire rating. By completing the analysis below, compliance with the conditions and limitations contained within the CodeMark Certificate are complied with.

Substrate thickness	<input type="text"/> mm (must be > 8mm)	Substrate Density	<input type="text"/> Kg/m ³ must be > 338kg/m ³
Building Class (2-9)	<input type="text"/>	Wall / Ceiling / Battens	<input type="text"/>
Fixings/Penetrations?	<input type="text"/> See 2.2 below	Solid or Perforated?	<input type="text"/> See 2.1 below

2.1 Substrate Analysis

A. Solid Substrates	When applied to a non-perforated (solid) timber element, only the exposed surface (surface to view) and any exposed edges are required to be coated. This requirement applies regardless of whether the timber element is affixed directly to a substrate or an air gap is created behind the timber element.
B. Perforated substrate requirements, coating both faces.	<p>Perforations made on treated timber shall be re-coated unless the perforation is made such that a non-combustible item (such as a nail or screw) fills the hole.essential to ensure that coating has not been removed, covered or in any way tampered with.</p> <p>When the perforations/holes are made prior to application of the Fireshield coating and the timber element is fixed in such a manner that an air gap is created behind the timber element, the following shall be coated:</p> <ol style="list-style-type: none"> The exposed surface (ie: - surface subject to direct heat) including any exposed edges; and The inside surface of the perforation(s) (ie: - the thickness of the timber element) and The entire non-exposed surface of the timber element
C. Perforated substrate requirements, Group 1 material to back of substrate.	<p>When applied to a perforated timber element (perforation made prior to application of the coating) and the non-exposed surface is provided with a Group 1 (or better) material, the following shall be coated: -</p> <ol style="list-style-type: none"> The exposed surface (ie: - surface subject to direct heat) including any exposed edges; and The inside surface of the perforation(s) (ie: - the thickness of the timber element) and The non-exposed surface of the timber element for a distance of 100mm measured in any direction from the edge of the perforation opening.

2.2 Specified Fireshield System

Fireshield® TimberClear

Select the Fireshield system/s used in the project in the section below

Solid or Perforated Substrate
A/B/C see 2.1

Standard Installation : TimberClear + TimberClear Top Coat

Top Coat Matt or Low Sheen

OR

Approved Stain or Sealer + TimberClear + TimberClear Top Coat

Top Coat Matt or Low

Approved stain used

Resene Colorwood TDS D59 @ 23 microns DFT per coat.

Approved clear sealer used

Resene AquaClear TDS D59 @ 23 microns DFT per coat.

- All stains or clear sealers used under TimberClear must be approved for use by Fireshield®.
- No top coat can be applied over the TimberClear system.

Fireshield® TimberWhite

Select the Fireshield system/s used in the project in the section below

Solid or Perforated Substrate
A/B/C see 2.1

Standard Installation : TimberWhite

OR

TimberWhite + Approved Top Coat

Approved top coat used

Resene Spacecoat Low Sheen Waterborne Enamel TDS D311 @ 37 microns DFT

- All top coats used over TimberWhite must be approved for use by Fireshield®.

Fireshield® Timber Whitewash

Select the Fireshield systems used in the section below

Solid or Perforated Substrate
A/B/C see 2.1

Standard Installation : Timber Whitewash

OR

Timber Whitewash + Approved clear sealer

Approved clear sealer used

Resene AquaClear TDS D59 @ 23 microns DFT per coat.

OR

Timber Whitewash + Approved clear top coat

Approved clear sealer/top coat

Resene AquaClear TDS D59 @ 23 microns DFT per coat.

- Any clear sealer or top coats used over Timber WhiteWash must be approved for use by Fireshield®.

2.3 Application + On Site Conditions / Limitations

Application of the Fireshield intumescent coating systems is completed by Registered Fireshield Applicators trained in complying with the following conditions and limitations of the CodeMark COC.

Stains, Top Coats & Undercoats	Applications may have a stain or sealer undercoat subject to approval of Fire Protection Coatings and testing by an Accredited Testing Laboratory in accordance with EN 13823 to verify the Group 1 rating. See selections below for approved list.
Fire Safety	Timber base substrates coated with FIRESHIELD Timber Intumescent Coating Systems, must be listed as an essential fire safety measure and must appear on the Annual Fire Safety Statement in NSW or interstate equivalent and must be inspected annually. See COC RM30071 for ongoing inspection requirements and qualifications)
On Site Application Requirements	Product application must be undertaken or supervised by a professional Applicator that has been trained and registered by Fireshield®. All Fireshield® Registered Applicators complete the following on site to ensure compliance with the Fireshield® CodeMark COC. Storage, application and maintenance must be done in accordance with Fireshield Australia® Technical data Sheets for the product concerned (refer to COC RM30071)
On Site Labelling	In the area where the FIRESHIELD Timber Intumescent Coating Systems is present, install at least one product label on or in close proximity to the coated surface and a large product description label in the switchboard cupboard serving the coated area, in accordance with document AIFSANZ02.
Fixings, Attachments and Penetrations	Post treatment alterations, fixings, attachments, or penetrations to meet the relevant BCA Deemed-to-Satisfy Provisions including that fixings penetrating the treated timber are to be non-combustible and any exposed timber is to be treated accordingly.

3. Final Report : CP4 Compliance Acheived

The aforementioned project _____ requires a Group 1 rating to the listed timber substrate/s in Section 1 PBDB and compliance with the performance based solution from the NCC 2019 CP4: Safe Conditions For Evacuation. The Deemed to Satisfy solution Section C1.10 cannot be used to achieve a Group surface rating using the Fireshield coating systems for timber.

Using the Fireshield coating/s as listed in Section 2 Analysis above, will provide compliance with CP4:Safe Conditions For Evacuation and a Group 1 equivalent surface rating to the timber substrate using the valid Fireshield CodeMark certificate RM30071 issued by Globalmark.

The limitations and conditions listed on the CodeMark cetificate have also been complied with as demonstrated in Section 2 Analysis, and therefore the requirements of CP4: Safe Condtions for Evacuation have been met and the timber substrate/s will achieve a compliant Group 1 equivalent rating and an average specific extinction area of less than 250 m2/kg.

Form Completed By:	<input type="text"/>	Date:	<input type="text"/>
Business Name:	<input type="text"/>		
Business Address:	<input type="text"/>		
Contact email/phone:	<input type="text"/>		

Building Surveyor / BCA Check

The Fireshield® CodeMark COC is evidence that the **Fireshield Timber Intumescent Coating Systems will achieve Group 1 rating and an average specific extinction area of less than 250 m2/kg and compliance with the NCC 2019 Performance Solution CP4: Safe Conditions for Evacuation** if the relevant limitations and conditions have been adhered to, there is no requirement for the CodeMark and it's conditions to be reviewed by the Project Fire Engineer, the CodeMark is stand alone Evidence of Suitability with the NCC 2019.

This report satisfies the documentation requirement of NCC 2019 A2.2(4) using the Fireshield CodeMark COC, A2.2(4) outlines the formal process & documentation requirements for the development of performance solutions.

It is the user's responsibility to check that you have the latest document available by visiting fireshieldcoatings.com or checking with your local Fireshield representative as the information contained in this document is modified from time to time in line with our policy of continuous product development. The information in this document is not intended to be exhaustive; all advice given or statements made about the products (whether in this guide or otherwise) are correct to the best of our knowledge, Fireshield has no control over the quality or the condition of the substrate or the many factors affecting the use and application of the products. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the products. Fireshield hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. You should request a copy of this document and review it carefully.