

MAINTENANCE GUIDE



TIMBER COATING SYSTEMS

GENERAL INSPECTION & MAINTENANCE GUIDE



PROJECT MAINTENANCE SCHEDULE



GENERAL INSPECTION & MAINTENANCE

1. INTRODUCTION

Fireshield® offers three different intumescent coating systems for the protection of timber substrate surfaces to provide a building code compliant Group Surface Rating up to Group 1-S/Group 1 for use in New Zealand and Australia:

FIRESHIELD TIMBERCLEAR

The Fireshield® Timberclear system is a clear, waterborne, halogen free intumescent coating designed for use on interior timber surfaces to give a Group 1-S fire rating. The full Fireshield® TimberClear system consists of two products, both must be installed to complete the fire rated system: TimberClear Intumescent Basecoat and TimberClear Top Coat Matt or Semi Gloss.

FIRESHIELD TIMBERONE

Fireshield® TimberOne is a waterborne intumescent coating with a translucent finish on light coloured timber substrates. The full Fireshield® TimberOne system is a fully waterborne intumescent coating system consisting of two products TimberOne Intumescent Basecoat and TimberOne Top Coat.

FIRESHIELD TIMBERWHITE

Fireshield® TimberWhite is a waterborne, halogen free intumescent coating with a matt white finish designed for use on interior timber surfaces. Fireshield TimberWhite can be top coated with a Fireshield approved top coat for protective or decorative reasons.

The Fireshield® timber intumescent systems can resist typical contact with moisture, impact and abrasion; however, excessive wear or moisture contact may damage the system and if so, require inspection and possible remediation. Leave a copy of this Maintenance Guide with the Main Contractor or Client for future reference on site.

This document is a guide for the maintenance and inspection of the Fireshield® timber systems for group surface ratings and is divided into two main sections:

- **Inspection and Maintenance including repair.**
- **Project Inspection Schedule.**

2. INITIAL CARE AND PRECAUTIONS

Immediately after the application and curing, all Fireshield® systems provide the required fire rating, however care should be taken to ensure the coatings are fully cured before allowing public access and cleaning of the surface.

Fireshield® TimberWhite requires a protective top coat to provide a wipeable surface, advice on how to clean the surface immediately after application should be obtained from the top coat Manufacturers product technical data sheet.

The full Fireshield®TimberOne system with basecoat and sealer top coat dries hard immediately and can be cleaned when cured with the products listed below.

The Fireshield® TimberClear System differs from conventional coating systems and may require up to 21 days (three weeks) to achieve full cure and hardness, depending on environmental conditions during the drying and curing phases. During this period, it is essential to ensure that:

- The environmental conditions are as per the technical datasheet for application, drying and curing.
- Do not expose the coated surface to human impact until fully hardened.
- Do not clean or introduce detergents or water to the coating surface.
- There should be no use of adhesives or other installations that may interfere with the coated surface.
- Ensure that other trades are aware of 1-3 above to avoid damage during the final project site clean.

3. COATING MAINTENANCE

3.1 Surface Cleaning

During the life cycle of the coating, the surface may need cleaning to remove dirt, grease, food, minor scuffs or marks on the coating surface. To avoid damaging the coating during cleaning or maintenance follow the guidelines below which are a guide only and not exhaustive.

General Cleaning:

1. Clean with a warm damp cloth one area at a time and dry with a clean towel.
2. Avoid excessive rubbing and over-cleaning, do not scour.
3. Do not allow aggressive floor cleaners used on tiles or carpeted areas to come into regular contact with the coated surfaces, this can occur when hard floors are cleaned below the coated timber walls. In case of accidental contact, immediately rinse and dry.
4. Avoid cleaning in direct sunlight or temperatures too hot or too cold.

Do not use the following detergents:

- Vinegar (acidic) based cleaners.
- Citrus (lemon) based cleaners.
- Window cleaner.
- Paint remover or other industrial abrasive cleaners.

4. COATING INSPECTION

When correctly applied, Fireshield® intumescent coating systems used in internal environments classified under Corrosivity Category C1 are not expected to require maintenance throughout the design life of the building, except for decorative purposes or in instances where mechanical damage has occurred.

However because the Fireshield® timber coating system is typically specified and installed in areas exposed to view and prone to human impact, damage can occur and regular visual inspections are required.

3.1 Compliance Schedule BWOFF

Where an Fireshield® intumescent coating system (ICS) forms part of a fire separation where the fire separation forms part of the means of escape from fire, (e.g., fire-rated wall or floor), the details of the ICS must be included in the building's Compliance Schedule or BWOFF. Fireshield® recommend that all Fireshield® systems are listed on the building compliance schedule.

Upon completion of the building project the building owner will be issued a Compliance Schedule concurrently with the Code Compliance Certificate (CCC). The Compliance Schedule identifies all Fireshield® systems within the building and will contain:

1. a detailed description of each Fireshield® system (i.e. timber surfaces protected with an ICS),
2. location details for each Fireshield® ICS (e.g. as-built drawings or plans),
3. the applicable performance standard for each Fireshield® ICS, and
4. a copy of this inspection and maintenance program to verify that the Fireshield® ICS continues to perform as intended.

The building owner is then responsible for:

- ensuring that all inspection, maintenance, and reporting procedures specified in the Compliance Schedule are implemented, and
- verifying that each Fireshield® system is performing, and will continue to perform, in accordance with the stated performance standards.

Routine visual inspection of the Fireshield® timber intumescent systems helps to ensure that the product will perform in actual building fire conditions. Because the Fireshield® timber coating system is typically specified and installed in areas exposed to view and prone to human impact, regular visual inspections are required.

Identify all areas throughout the building that have the Fireshield® timber intumescent system installed, in Australia Fireshield® labels will be installed in the local switchboard serving the coated area and near the installation indicating the system installed, by whom and the date of installation.

3.2 Frequency of Inspections

The frequency of inspections should be as per the Compliance Schedule, if the Fireshield® timber intumescent system is not listed on the Compliance Schedule, inspections must be completed:

New Zealand: Minimum once every 12 months.

Australia: Minimum once every 12 months in accordance with the Codemark Certificate of Conformity RM30071.

The inspections are to be carried out by a Fireshield Registered Applicator or a suitably qualified and experienced Inspector with a full understanding of the Fireshield coating systems.

5. MINOR DEFECTS AND DAMAGE

Minor visual imperfections are aesthetic only. they do not affect continued fire compliance can be left as is, or repaired if desired, these include but are not limited to:

- Soft scuff or polish marks to surface coating (for example caused by human impact)
- Fireshield® TimberClear only: blotching, cloudy or milky finish which is caused by incorrect environmental conditions or poor application during application and curing.

5.1 Minor Coating Repairs

5.1.1 Fireshield® Timberclear and Fireshield® TimberOne full systems:

1. The TimberClear Top Coat and TimberOne Top Coat may be very lightly sanded with fine sandpaper (400 + > grit) to remove light surface damage or marks. Note the top coats are different, TimberClear Top Coat is solvent based and TimberOne Top Coat is waterborne, do not use on the wrong basecoat.
2. Be sure not to sand down the topcoat to expose the TimberClear or TimberOne base coat as this will affect compliance.
3. Overcoat with an additional coat of the applicable Fireshield® Top Coat for the system (use the same sheen level). It may be necessary to top coat the entire panel or batten to avoid 'wet lines' where the new coating and existing coating overlap.

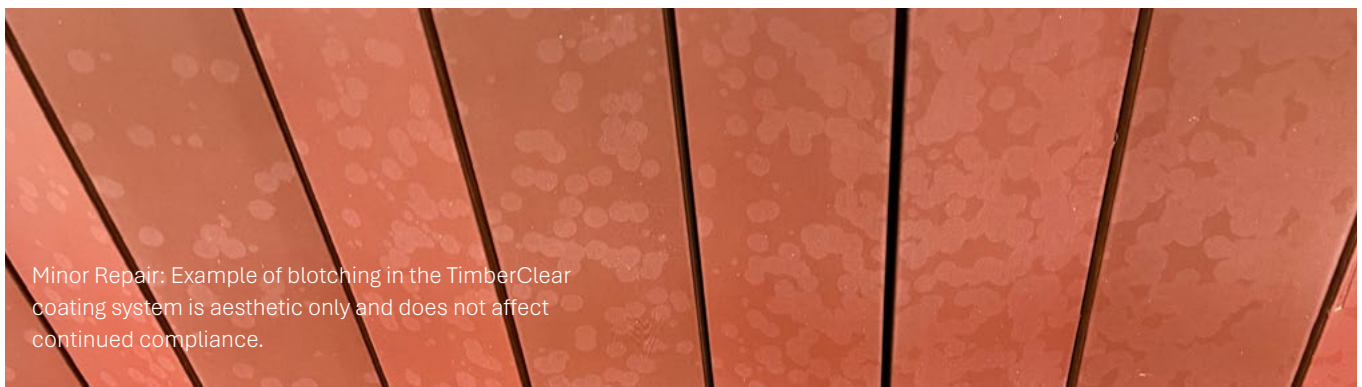
5.1.2 Fireshield® TimberWhite

Fireshield® TimberWhite systems that **do not have a protective top coat** applied cannot be sanded for repair without requiring an additional coat of the applied system for continued compliance.

1. Lightly sand with fine sandpaper (400 + > grit) to remove light surface damage or marks.
2. Overcoat with an additional coat of Fireshield® TimberWhite to a minimum dry film thickness of 160 microns. It may be necessary to coat the entire panel to avoid 'wet lines'

5.1.3 Fireshield® TimberWhite systems that have a protective top coat applied;

1. The decorative topcoat may be very lightly sanded with fine sandpaper (400 + > grit) to remove light surface damage or marks.
2. Be sure not to sand down the topcoat to expose the TimberWhite and Timber Whitewash base coat as this will affect compliance.
3. Overcoat with an additional coat of the same topcoat. It may be necessary to topcoat the entire panel to avoid 'wet lines' or colour variations where the new coating and existing coating overlap, consult the topcoat manufacturer for further repair options specific to that coating.



Minor Repair: Example of blotching in the TimberClear coating system is aesthetic only and does not affect continued compliance.

6. MAJOR DEFECTS AND DAMAGE

Major defect and damage are non-acceptable surface conditions that affect fire compliance, remediation of the damaged coating **MUST** be completed for continued compliance; these include but are not limited to:

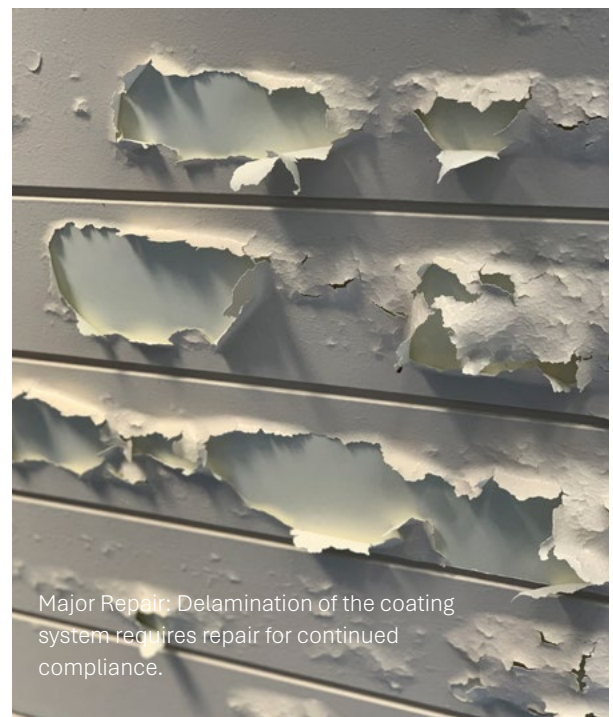
- Dents, scratched, gouges, chips or holes in the coating.
- Delamination of coatings.
- Flaking, peeling or blistered coatings.

All non-acceptable surface conditions for compliance require immediate remedial work to be carried out by a Fireshield Registered Applicator in accordance with the Fireshield Technical Data Sheet, Application Instructions and Material Safety Data Sheet.

6.1 Major Coating Repairs:

Major defects and damage repair process:

1. Remove unsound and damaged coatings to a neat firm edge with sound adhesion down to the timber substrate. Avoid damaging the timber substrate further.
2. Sand the damaged timber surface and remove the Fireshield timber intumescent system to at least 5cm away from the damaged area.
3. Feather coat edges.
4. Clean the sanded surface to remove grease and dust.
5. Fill any dents or gouges in the timber substrate as required with a water-based wood filler and allow to fully harden/dry. For Fireshield® TimberClear and Fireshield® TimberOne use a filler that matches the timber colour.
6. Apply the necessary dry film thickness of the Fireshield® timber intumescent system to the exposed timber substrate using spray application if possible to avoid a textured finish.
7. The dry film thickness must be in accordance with the Technical Data Sheet and product Application Guide.
8. If a topcoat has already been applied to the existing system, minimise overlap of fresh Fireshield® waterbased ICS product over the existing topcoat.
9. Apply topcoat as appropriate.
10. Complete the Fireshield Daily Application record sheet and provide the client/building owner with a copy.





TIMBER COATING SYSTEMS

PROJECT MAINTENANCE SCHEDULE

Below is the project specific inspection and maintenance schedule, this shows the Fireshield® systems used and their locations in the building, this should be left with the client to assist with Compliance Schedule inspections and future maintenance.

7.1 PROJECT DETAILS

Fireshield Project Number

Project Name	
Site Address	
Date	
Fireshield® System	
Group Surface Rating	
Client Name	
Client Email	
Prepared By	

7.2 FIRESHIELD® TIMBER COATING SYSTEMS IN THE BUILDING

Fireshield® System	Timber Species	Location	Datasheet #	Top Coat (if used.)	Area m ²

Fireshield® System Location and Substrate Notes : (include timber profile, description ceiling or wall etc)

Complete the schedule above and leave a copy of this entire document with the Main Contractor and Building Owner upon completion of the Project after sign off and issuing of the PS3. If you need assistance completing the form contact Fireshield.

This information has been prepared in good faith on the basis of information and material available at the date of publication without any independent verification. Fireshield does not guarantee or warrant the accuracy, reliability or completeness in this information nor its usefulness in achieving any purpose. Fireshield will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on information in this guide.