



# Steel 1001

Intumescent Coating for Structural Steel 30-60 minute FRR

## PRODUCT DESCRIPTION

Fireshield® Steel 1001 is a waterborne, intumescent coating with a matt white finish, designed for use on interior structural steel providing 30 to 60 minute FRR.

### Conditions of use

Steel 1001 is an industrial product and should only be applied by Registered Applicators.

This product provides fire protection to steel beams and columns, for both open and hollow section profiles.

### Coating Requirements

Sequence of required coatings for standard C1 interior zone installation:

1. Fireshield® approved primer coat.
2. Fireshield® Steel 1001

Sequence of required coatings when used in C2-C3 interior zone, in areas where constant air humidity is over 75%, or when a washable surface is required:

1. Fireshield® approved primer coat.
2. Fireshield® Steel 1001
3. Fireshield® approved top coat

**NOTE:** The dry film thickness should be measured during application to ensure the specified film thicknesses have been achieved before any topcoat is applied.

All steel sections must be coated with the correct film thickness as scheduled to achieve the required fire rating for compliance purposes. Final dry film thickness's should not exceed over 30% of the specified dry film thickness scheduled.

### Maximum film thickness

At +25°C air temperature and 50% relative humidity the recommended maximum wet film thickness is 1000µm per coat. Applying too thick or more than 1000µm in one coat may cause:

- Cracking.
- Poor adhesion
- Delay in drying time.

**NOTE:** The maximum film thickness may be reduced by poor air flow and environmental conditions differing from those listed above, which are a guide only. Contact Fireshield® for more information.

### Primers

Steel 1001 can only be applied to a primed surface. For the list of Fireshield® approved primers list got to [www.fireshieldcoatings.com](http://www.fireshieldcoatings.com).

### Topcoats

Steel 1001 can only be top coated with Fireshield® approved top coats. For the approved top coats list got to [www.fireshieldcoatings.com](http://www.fireshieldcoatings.com)

### Limitations

- For interior use only. Do not use on exterior steel structure.

## TECHNICAL INFORMATION

### Storage conditions:

Recommended storage conditions:

- Store at a temperature above +5°C and below +35°C
- Store indoors and undercover in temperate conditions.
- Store away from direct sunlight, do not expose to extreme heat.
- Do not allow to freeze.
- Keep containers closed when not in use.
- **Keep out of reach children!**

### Shelf life

12 months at +25°C if stored in original sealed containers under recommended storage conditions listed above.

Specific gravity	1.4 +/- 3%
Non-volatile content	68% +/-2%
Flash point	Non-combustible
VOC	<50 gram/litre.
Colour	White / flat
Packaging	Weight 25kg / Volume 18 litre.
Mixing	Mechanically mix.
Thinning	<b>DO NOT THIN!</b>
Clean up	Clean potable water
Theoretical coverage	Approx. 7.0m <sup>2</sup> / litre at 100µm DFT.

### Drying times

At a minimum air temperature of +23°C and relative air humidity of 50% the following drying times are applicable:

- 8 hours between coats of Steel 1001: and
- 48 hours before top coating with Fireshield® approved top coat.

### NOTE:

Drying times have been calculated with a wet film thickness of 800µm

Dry times may be lengthened by poor air flow and environmental conditions differing from those listed above, which are a guide only. Contact Fireshield® for more information.

Application should not take place in conditions which are deteriorating, e.g. the temperature is falling or there is a risk of condensation forming. If condensation occurs over night during curing, dry times must begin again the following day.

**APPLICATION NOTES**

The product must be applied in strict accordance with the Fireshield® application guide. In particular the Applicator should ensure:

- Any steel surface that is to be coated is at a temperature above +5°C and below +35°C and is at least +3°C above the dew point.
- The surface to be coated must be completely clean and dry, remove all rust, dust, oil, grease, loose material or other contaminants as per AS1627.1, Definitions 2.1.
- Check compatibility with any previous applied product before application.

**Precautions**

The following precautions must be taken:

- All work involving the application and use of this product should be compliant with all relevant National Health, Work Safety & Environmental standards and regulations.
- Read the Fireshield® **Steel 1001** Application Guide in full before application.
- Before use read the **Steel 1001** Material Safety Data Sheet (MSDS) and have a copy available on site at all times.
- Where conditions may require variation from the recommendations on this Product Data Sheet contact Fireshield® for advice prior to painting. Do not apply in conditions outside the parameters stated in this document without the express written consent of Fireshield®.

**Application Environment**

During application and drying period, day or night ensure that:

- The air temperature is between +10°C minimum to a maximum +35°C.
- The relative air humidity level is between 20% to 80%.
- During application and drying, protect from direct wetting/ moisture/windblown rain and water pooling on or around the coated steel section. Contact Fireshield® for protective measures.

**Environmental**

Fireshield is a member of the International Living Future Institute, Fireshield **Steel 1001** is Red List Free and has Declare status.

**Declare.**



It is the user's responsibility to check that you have the latest technical datasheet available by visiting [fireshieldcoatings.com](http://fireshieldcoatings.com) or checking with your local Fireshield Representative as the information contained in this technical data sheet is modified from time to time in line with our policy of continuous product development. The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet does so at their own risk. All advice given or statements made about the product (whether in this data sheet 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 product. 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 product. 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.


**APPLICATION METHOD**

**Airless Spray**


Airless spray is the recommended method of application and gives the best result. Airless spray with an in-line heater /heated hose (maximum temperature +35°C) can be used to assist application in the minimum environmental temperature range.

**Airless Equipment Recommendations**

Pump flow rate	5 litres per minute minimum
Spray Gun	Heavy Duty Texture Gun or similar
Spray Tip	Switch tip and guard or similar. Orifice size range of .015" - .021". Choose appropriate fan width depending upon structure(s) to be coated.
Atomising Pressure	2,500 - 3,000 P.S.I
Material Hose	Up to 30mtrs of 3/8" material line and 3mtrs of 1/4" whip line. Heated hose can be used max 35°C

**Brush** 

Brush application only suitable for small areas or touch-up and may result in a textured finish. Care must be taken to achieve the required specified dry film thickness. Typically, 100-300 microns(µm) can be achieved.

**Roller** 

Roller application only suitable for small areas or touch-up and may result in a textured finish. Care must be taken to achieve the required specified dry film thickness. Typically, 100-300 µm can be achieved.

**Compliance**

**Australia:** Fire Tested to EN13381-8:2013 and assessed by Exova Warringtonfire to AS1530.4 complying with the NCC 2019 Building code of Australia Volume 2, Schedule 5.

**New Zealand:** Tested to EN13381-8 :2013 and assessed by Exova Warringtonfire to BS476 parts 21 and 22 and 5Th Edition Yellow Book using NZS 3404: Part 1, 1997 and complying with the New Zealand Building Code B1/VM1 and C2/AS1-C6/AS1 Section C5.1.1.

**Supplier**

Fireshield Coatings  
 13 North Concourse, Beaumaris,  
 Victoria 3193, Australia  
 ABN: 95 336 533 948  
 Ph: 1-800 092 097  
[www.fireshieldcoatings.com](http://www.fireshieldcoatings.com)

Fireshield Coatings  
 Level 1, 60 Cashel Street  
 Christchurch 8013,  
 New Zealand  
 Ph: 0800 347 374  
[www.fireshieldcoatings.com](http://www.fireshieldcoatings.com)