

Fireshield® 920KS

Interior and Exterior 2-pack Epoxy Intumescent Coating 30 - 120 minutes FRR.

PRODUCT INFORMATION

DESCRIPTION

Fireshield® 920KS is a high build, two-pack solvent-free intumescent coating with a matt grey finish, designed for use on interior and exterior structural steel open and closed sections for 30 to 120 minutes protection from fire. Fireshield® 920KS can be used with Fireshield fire rated bolt caps.

CONDITIONS OF USE

Fireshield® 920KS is an industrial product that can be applied on or off site and should only be applied by Fireshield® Registered Applicators. Fireshield® 920KS can be used in conjunction with the Fireshield® Cladding Study which allows timber and plasterboard to be attached to the coated surface up to 60 minutes FRR.

MAXIMUM FILM THICKNESS

The recommended maximum film thickness is 2500µm per coat. Poor air flow and environmental conditions can reduce this.

SURFACE PREPARATION

In corrosivity categories up to interior C2, Fireshield® 920KS can be used direct-to-metal when applying off site only. Steel preparation abrasive blast-clean to a minimum of AS1627.4 Class 2.5 (SSPC SP10) , with reference to visual standard ISO 8501-2 Sa 2 ½. Blasted surface must comply with SSPC-SP1, remove all water soluble salts by using appropriate methods.

PRIMERS

For higher corrosivity categories C3 to C5 an approved anti-corrosion primer is required. 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 primer before application.

Fireshield® 920KS can be applied over the following approved primers:

- Fireshield® Hensoground 2K-EP 2-pack epoxy - TD-FSHG2K-EP-02
- Fireshield® Hensoground 2K (*Galvanised steel sections*) - TD-FSHG2K-01
- Approved generic primers as per EAD 21/0475.
- Fireshield® approved primers from other Manufacturers, contact Fireshield® for more information and full system spec. sheets for all corrosivity zones.

TOP COATS

Fireshield® 920KS can be top coated with the following approved top coats:

- Fireshield® Hensotop 2K PU 2-pack epoxy - TD-FSHT2K-EP-01
- Fireshield® Hensotop SB single pack solvent- TD-FSHTSB-01
- Fireshield® approved top coats, contact Fireshield® for more information.

Application of the top coat may occur after through drying of Fireshield® 920KS (min. >24 hrs) and < 7 days otherwise the coated surface may require further preparation .

When overcoating Fireshield® 920 KS, the best result is achieved by using a mist coating technique, where the undiluted or diluted top coat is sprayed in built up thin layers.

WEATHER PROTECTION DURING CONSTRUCTION PHASE

During construction maximum 6 months exposure when applied direct to metal without a sealer/ top coat. Surfaces with anti corrosive primer no limitations to exposure however UV exposure effects may occur such as chalking and poring which have no effect on the fire protection.

LIMITATIONS

All intumescent coatings require an expansion gap of 50 x the dry film thickness from the coated surface. However Fireshield® 920KS can have timber and plasterboard attached to the coated surface up to 60 mins FRR, see the Fireshield® Cladding Guide for full details.

TECHNICAL INFORMATION

Density	1.3 kg/l (± 1%)
Volume Solids	100% by volume and weight
Flash point	Non-combustible
Colour	Grey matt (approx RAL7045)
VOC	<50 gm/l (AgBB 2018)
Clean Up	Fireshield® V55 cleaner
Tested bond strength	> 8 MPa (DIN EN ISO 4624)

PACKAGING

Single component airless machines (21 kg kit)

920KS Part A Base	15 kg
920KS Part B Hardener	6.0 kg

Plural component airless machines

920KS Part A Base	20 kg / 200 kg options
920KS Part B Hardener	20 kg / 200 kg options

Repair Kits

920KS Part A Base	2.5 kg
920KS Part B Hardener	1.0 kg

DRY TIMES

1000 microns dry film thickness (DFT)

Dust Free	~ 6 hrs
Hard Dry	~ 24 hrs
Recoat (with self)	24 hrs min to max. 7 days
Top Coat	24 hrs min to max. 7 days

3000 microns dry film thickness (DFT)

Dust Free	~ 8 hrs
Hard Dry	~ 30 hrs
Recoat (with self)	36 hrs min to max. 7 days
Top Coat	36 hrs min to max. 7 days

* See overcoating instruction for additional information. An increase in film thickness and a rise in the relative humidity can slow drying.

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 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 and SSPC-SP1.
- Check compatibility with any previous applied product before application.
- Application should be completed in conjunction with the FPANZ Intumescent Code of Practice.

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® 920KS Application Guide in full before application.
- Before use read the Fireshield® 920KS 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, day or night ensure that:

- The air temperature is between +10°C minimum to a maximum +35°C.
- The relative air humidity is ≤ 80%.
- Optimal surface finish is obtained at a room temperature of +20 °C to +30 °C during application and curing.
- Environmental temperatures < 12 °C can affect the visual appearance of the final product, the flow properties during application and extend the drying time

ENVIRONMENTAL

- 100% solvent free.
- AgBB tested to emissions class A+
- Free of halogens, alkylphenol and benzyl alcohol.
- Tested according to the criteria issued by the Committee for Health-related Evaluation of Building Products (AgBB) for VOC emissions from building products suitable for indoor use.

COMPLIANCE

Fireshield® 920KS is tested and assessed in accordance with BS476:1987 Parts 20 and 21 complying with the New Zealand Building Code and AS4100:1998 amendment 1 complying with the National Construction Code 2022 in Australia.

SUPPLIER

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Manufacturer

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APPLICATION METHOD

The application of Fireshield® 920KS requires a high performance airless unit with paint heating unit(s) and feed pump(s) or gravity feed unit.

AIRLESS SPRAY

2-component plural feed or single component with stainless hopper. See the Fireshield Application Guide for pump and tip settings.

MIX RATIO

	920KS Base (Part A)	920 KS Hardener (Part B)
By Volume	2.5 parts	1 part
By Weight	100 parts	40 parts

MIXING

Single-component airless equipment with stainless steel hopper:

- Thoroughly mix Part A (base) using a power mixer to a material temperature of at least +15 °C.
- Continue to power mix and add Part B (hardener) to the specified mixing ratio above.
- Continue power mixing for at least 5 minutes until the compound becomes homogeneous.
- It is recommended to keep the coating materials (base and hardener) in an appropriately temperature controlled room for at least 12 hours prior to their application.

WORKING POT LIFE

+ 23 °C	+ 30 °C	+ 40 °C
~ 60 minutes	~ 45 minutes	~ 30 minutes

CLEANING OF EQUIPMENT

Clean using Fireshield® V 55 cleaner immediately after completion or interruption such as protracted work stoppages. When completed, drain the cleaner material completely out of the airless equipment and hoses.

BRUSH APPLICATION

Can be applied undiluted by brush to small areas to repair joints and bolt connections.

TRANSPORT

When transporting steel sections that have been coated off site, handle and use care to avoid damage. Steel sections that are exposed to wet weather or continuous moisture during storage outdoors or during transportation should be protected by with tarpaulins or a protective top coat.

STORAGE

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

15 months at +25°C if stored in original sealed containers under the

It is the user's responsibility to check that you have the latest technical datasheet available by visiting 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.