

FIRESHIELD® 920KS BOLT CAPS

Fire rated bolt and nut caps for interior and exterior galvanised or carbon bolts up to 120mins* FRR.

PRODUCT INFORMATION

SYSTEM DESCRIPTION

Fireshield® 920KS fire rated bolt caps are manufactured from Fireshield® 920KS a high build epoxy intumescent coating and utilise the same certification. 920KS Bolt Caps can be used on interior and exterior structural galvanised and carbon steel nuts and bolts for up to 120 minutes protection from cellulosic fire in C1 to C5H corrosivity zones.

Fireshield® 920KS bolt caps are fitted using Fireshield® 920KS epoxy as the adhesive filler, see Application Notes. The 920KS epoxy filler combined with the 920KS fire rated bolt cap provides up to 7000 microns dry film thickness of protection.

The installed 920KS fire rated caps can be top coated with approved top coats, see the approved list SAPTCNZAU-920KS.

BOLT CAPS



- Bolt caps available in M12 to M36 sizes.
- No thread allowance.
- Install before or after intumescent application.

NUT CAPS



- Nut caps available in M12 to M36 sizes.
- With 5mm thread allowance.
- Install before or after intumescent application.

PRIMERS

Fireshield® 920KS Bolt Caps can be applied directly to the clean, unprimed galvanised or carbon nut/bolt, however if a primer is used the caps can be fitted over a wide range of approved primers for 920KS:

- Fireshield® system primers Hensoground 2K-EP and Hensoground 2K.
- Approved generic primers for interior only EAD 21/0475, contact Fireshield®.
- Fireshield® approved primers, go to www.fireshieldcoatings.com for the approved primers list for 920KS - SAPTCNZAU-920KS

TOP COATS

Where a decorative finish is required, Fireshield® 920KS Bolt Caps can be top coated with the following approved top coats:

- Fireshield® Hensotop 2K PU.
- Fireshield® approved top coats, go to www.fireshieldcoatings.com for the approved top coats list for 920KS - SAPTCNZAU-920KS.

See Dry Times for application of top coats.

WEATHER PROTECTION DURING CONSTRUCTION PHASE

No limitations, UV exposure effects may occur such as colour fading which has no effect on the fire protection.

LIMITATIONS

- Limited to a dry film thickness of 7000 microns for the primary fire rated member at 120 minutes.

TECHNICAL INFORMATION

Volume Solids	100% by volume and weight
Flash point (C°)	Non-combustible.
Colour	Matt Grey (RAL7045)
VOC	<30 gm/l ISO 11890-2:2020-12
Clean Up	Fireshield® V55
Tested bond strength	> 8 MPa (DIN EN ISO 4624)
Theoretical Coverage	1kg at 1000 mu = 0.77m ² coverage.
Environmental	Green Star / Solvent Free
Available Sizes	M12, M16, M20, M24, M27, M30 and M36

DRY TIMES FOR FIRESHIELD® 920KS FILLER:

1000 microns film thickness (at 23°C)

Touch Dry	6 hrs (ISO 9117-3:2010)
Hard Dry	24 hrs

3000 microns film thickness (at 23°C)

Touch Dry	8 hrs (ISO 9117-3:2010)
Hard Dry	30 hrs

*See the Fireshield 920KS Application Guide AI:FS920KS for additional information. An increase in film thickness, a rise in the relative humidity can slow drying.

FIRESHIELD® 920KS KIT SIZES:

21kg Standard Kits:

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

3.5kg Repair Kits (special order)

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

BOLT CAPS 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.
- **Keep out of reach children!**

BOLT CAPS SHELF LIFE

Indefinite when stored in the conditions listed above.

INSTALLATION NOTES

Fireshield® 920KS bolt caps are installed using Fireshield 920KS epoxy as the adhesive filler with a putty knife or similar.

The 920KS epoxy product must be applied in strict accordance with the Fireshield® Application Guide AI:FS920KS by Registered Fireshield Applicators. In particular the Applicator should ensure:

- Store both Parts A and B at a minimum of +15°C for 24 hours prior to mixing and subsequent application.
- 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 or 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 AI:FS920KS in full before application.
- Before use read the Fireshield® 920KS Material Safety Data Sheets Pt. A and Pt. B (MSDS) and have copies 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.

APPLICATION ENVIRONMENT

During application and drying of the 920KS filler, day or night ensure that:

- The air temperature is between +10°C minimum to a maximum +35°C.
- Temperatures < 10 °C can affect the flow properties during application and extend the drying time
- The relative air humidity is < 80%.

COMPLIANCE

New Zealand:

Tested and assessed in accordance with EN 13381-8:2013 and BS476:1987 Parts 20 and 21 complying with NZS 3404 Pts 1 and 2:1997 and the New Zealand Building Code.

Australia:

Tested and assessed in accordance with EN 13381-8:2013 complying with AS4100:2020 amendment 1 and with the Australian National Construction Code.

SUPPLIER

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INSTALLATION METHOD

Fireshield® 920KS bolt caps can be installed during any phase of the construction program after the bolt and nut installation is complete:

- After steel erection.
- Before application of intumescent coating to the primary steel sections.
- After application of the intumescent coating to the primary steel section.

Prior to installation of the bolt caps it should be verified that the bolted connections are complete and installed in accordance with the project specification.

Prior to installation visually inspect each bolt cap for damage, any defective caps should be returned to Fireshield. Ensure that the bolt cap is the correct size for the bolt and nut connection.

MIXING FIRESHIELD® 920KS EPOXY:

- If mixing smaller quantities or part kits see mix ratios below.
- 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.

MIX RATIO OF FIRESHIELD® 920KS EPOXY:

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

APPLICATION OF FIRESHIELD® 920KS FILLER:

A putty knife or similar is used to fill the Fireshield® 920KS bolt cap using Fireshield®920KS epoxy intumescent as the adhesive filler . The combined dry film thickness of bolt cap and adhesive is up to 7000 microns.

- Thoroughly power mix the required amount of Fireshield® 920KS epoxy as per instructions above.
- Use a small to medium sized putty knife or similar to fill the bolt cap with Fireshield®920KS to the top of the cap.
- Carefully place the full cap over the bolt or nut head and firmly press with even pressure ensuring full adhesion to the bolt or nut head, the cap must sit tight against the steel surface.
- For clean-up around the cap if required, use V55 cleaner to wipe away any excess Fireshield®920KS epoxy filler.

WORKING POT LIFE FIRESHIELD® 920KS EPOXY:

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

CLEANING UP

Clean equipment using Fireshield® V 55 or standard xylene based 2-pack epoxy intumescent cleaner.

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.