

THE ULTIMATE HIGH PRESSURE EXERTING FR SEALANT



TECHNICAL DATA SHEET

FireMastic-HPE™

EDITION: 8

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APPROVED TO AS1530.4: 2014 & AS4072.1-2005

The ultimate high pressure exerting fire sealant for plumbing, electrical & HVAC/R services.



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KEY BENEFITS

- Class leading proven 4HR high-performance fire sealant
- High pressure 40x expansion rate
- Unmatched versatility – Huge array of new systems
- Superior performance – Fire rating up to 4hrs
- Peace of mind – heavily reduced compliance risks
- Smaller annular gaps – Project savings
- Bundled services save time, material and space
- Ultra-low VOC content
- Easy gunning & tooling
- Long life & paintable

1. INTRODUCTION

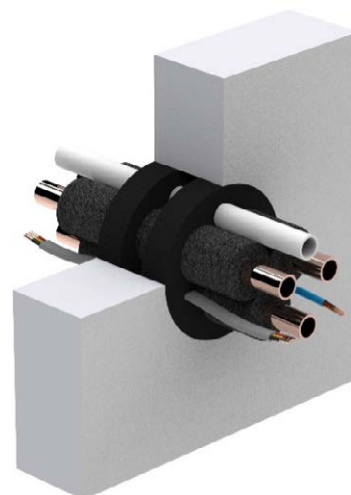
FireMastic-HPE™ is a graphite-based, High Pressure Exerting FR sealant used to reinstate the fire resistance performance of wall, floor & ceiling systems. Under heat, **FireMastic-HPE™** will expand with enough pressure to close combustible pipes and seal around cables and metal pipes to maintain the integrity and insulation performance of the seal, without placing any unnecessary pressure on the building substrate.

FireMastic-HPE™ is supplied in cartridges suitable for caulking via an applicator gun or also available in foil sausages. It has excellent non-slump properties coupled with the ease of application due to its water-based nature.

The sealant is intended for use to reinstate the fire resistance levels where service penetrations through walls, floors and ceilings where fire integrity and insulation needs to be preserved. Under fire conditions the product expands up to 40 times its volume and exerts pressure to the surrounding substrates leading to closure of the penetration. The integrity and insulation are then maintained by the stability of the remaining product char.

2. WHAT'S NEW WITH FIREMASTIC-HPE™

- All new Eco-Friendly Formula
- Recent testing on common services with smaller annular gaps means less material used, saving you money and time
- New range of testing to suit 60min single layer plasterboard systems
- Huge array of new BOSS Batt systems
- Common apartment entry applications can be installed with just one sealant (including steel sprinklers)
- Testing for 4hr applications
- New floor and ceiling testing
- Cross Laminated Timber floor systems
- Hundreds of new systems
- All new Quick Reference Guide with easy to read tables based on substrates with direct references to test report tables
- Cartridges made from recycled materials



3. PHYSICAL SPECIFICATION

Sizes:	310ml / 600ml
Product code:	FMHPE-3 / FMHPE-6
Colour:	Charcoal Grey
Weight:	1.30-1.40g/cm ³
Application Temperature:	5°C to 35°C
Sag Flow:	~0mm
Skin time:	40 minutes (23°C/50%r.h)
Shore A Hardness (28 Days)	85/81 (1 Second/5 Seconds) (BS ISO 7619-1:2010)
Chemical Resistance	Not to be used where joints are to be constantly immersed in water. Do not use on substrates that are likely to release solvents, oils or plasticizers. Not resistant to water, strong acids, strong bases, oxidizing agents (i.e. hydrogen peroxide), alcohols, hydrocarbon solvents
FRL:	Up to -/240/240
Shelf Life:	24 Months
Certification:	AS1530.4: 2014, AS4072.1-2005
VOC:	18g/Litre SCAQMD

4. APPROVED APPLICATIONS

FireMastic-HPE™ has extensive fire test approvals including AS1530.4: 2014, and AS4072.1-1995 offering up to FRL -/240/240. A wide variety of plumbing, electrical & HVAC/R services are tested and approved using FireMastic-HPE™ including:

Plumbing:

- PEX Water Pipes
- PEX-AL-PEX Gas Pipes
- cPVC Sprinkler Pipes
- Steel Sprinkler Pipes
- uPVC DWV and Non DWV Pipes
- Kelox & HDPE Pipes
- Faucet & Tap Sets

Electrical:

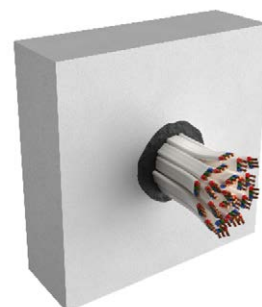
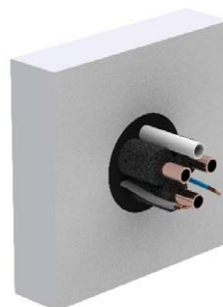
- TPS Power Cables
- Orange Circular Mains Cables
- Data / Comms Cables
- CAT5 & CAT6 Cables
- Fire Alarm Cables
- Security Cables
- Coax Cables (MATV)
- Conduits

HVAC/R:

- Insulated Copper Pipes
- Insulated Steel Pipes
- Paircoil Bundles: Includes Cables & Condensate Drains)

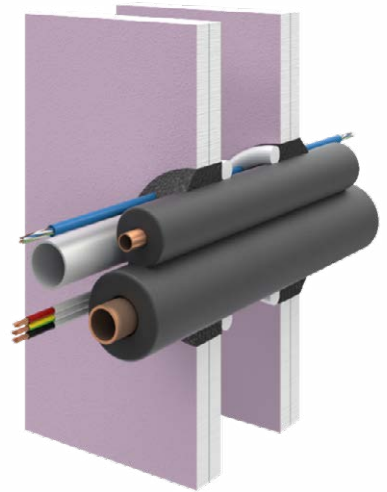
Construction Details:

- Timber Penetrations



5. APPROVED SUBSTRATES

- 1hr single layer fire rated plasterboard systems
- 90min fire rated plasterboard systems
- 2hr fire rated plasterboard systems
- Hebel & AAC
- Speedpanel & Korok
- Shaftliner
- Stratawall
- Cross Laminated Timber Walls & Floors
- Masonry & blockwork walls
- Concrete walls
- Concrete floor slabs
- Metal deck concrete floor systems
- Comflor



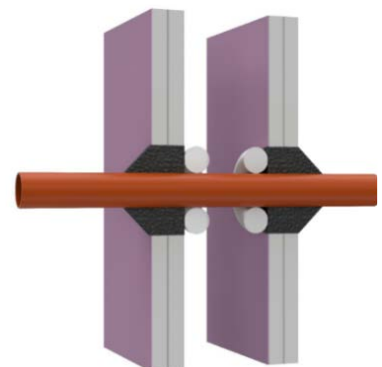
6. FBC™ SYSTEM COMPATIBLE

FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® piping systems and products made with TempRite® Technology.” “The FBC System Compatible Logo, FBC™, FlowGuard Gold®, BlazeMaster®, Corzan®, and TempRite® are trademarks of Lubrizol Advanced Materials, Inc. or its affiliates.



7. SPEARS SYSTEM COMPATIBLE

Spears® laboratory testing has shown FireMastic-HPE™ to be compatible with satisfactory performance in normal installation of CPVC products. FireMastic-HPE™ has been tested and has shown no adverse CPVC compatibility issues when installed and utilized as intended with Spears systems known as FlameGuard®, LabWaste®, EverTuff® and CTS.



8. PERFORMANCE SPECIFICATIONS

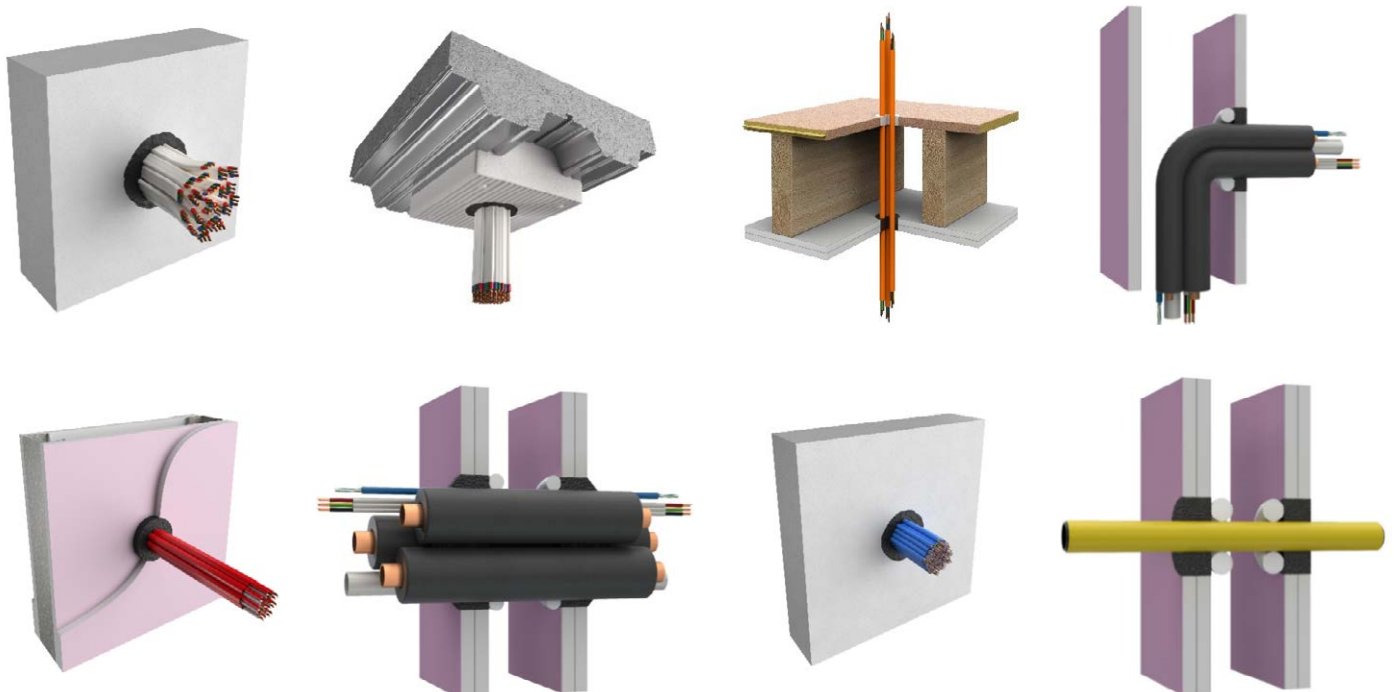
FireMastic-HPE™ has extensive fire test approvals including AS1530.4: 2014, and AS4072.1-2005 offering up to FRL -/240/240.



IMPORTANT: In order to ensure performance and compliance, passive firestopping products must be installed in accordance with the test evidence, manufacturer's specifications or be the subject of a performance solution. Each project and/or application may have specific requirements and you should investigate these carefully. Ensure that you read and understand the appropriate certification and how it relates to your specific construction details, and ensure you seek acceptance from the Certifying Authority or compliance inspector before installation. Ensure your installation is carried out in accordance with the test certification, manufacturer's instructions, and in accordance with the relevant local building regulations, National Construction Code or Building Code. For updates on the range of BOSS Fire® certification, please contact BOSS Technical Services. **AU:** 1300 502 677 **NZ:** 0800 502 677 **Int:** +61 2 9524 4040 **Email:** info@bossfire.com

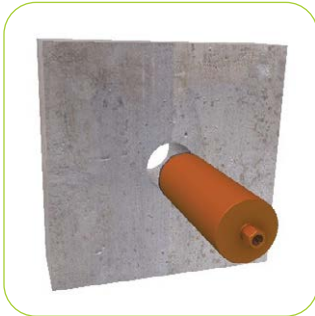
9. BOSS FIRE SYSTEM MATRIX

For specific summary information on the approved systems relevant to **FireMastic-HPE™** please refer to the **BOSS Fire System Matrix**. The **BOSS Fire System Matrix** is a filterable summary document containing information to help select the appropriate system relevant to your building application. Associated Test and Assessment Reports are also available for download from the Resources page at bossfire.com.au/resources.



10. INSTALLATION

1. Ensure that the gap, aperture and/or services in question are tested with FireMastic-HPE™ and the site conditions are within the application specification.
2. Cut the appropriate size aperture in accordance with the tested system.



3. Ensure the opening and any surface / substrate which the product will come into contact with is clean, dry, free of dust and loose particles and free from oil or grease.



4. Mask the surface of the wall if an aesthetic finish is required. Install the service and pack the aperture if required with foam backing rod to control the sealant depth on each side in accordance with the tested or certified system.



5. Cut nozzle to required bead size and apply sealant around the service and fill the void to the surface of the substrate using an appropriate caulking gun. Best results are achieved if filling is started at the bottom of the void and working upwards.



6. If a fillet of sealant is required, measure the required fillet size along the service from face of the substrate, and again the distance along the substrate from the service. build up a fillet of sealant around the surface and back to the wall. Apply sealant, building up the fillet to the required distance out from the substrate and service.
7. Smooth out sealant with a wet spatula within 5 minutes for professional finish.



8. Clean tools immediately after use with water.
9. Label penetration in accordance with regulatory requirements.



All dimensions and tolerances should be in accordance with recommended guidelines as dictated by the relevant test data and assessment documents.

11. STORAGE & DISPOSAL

FireMastic-HPE™ is not affected by external environments. However, for long term storage and ease of installation, **FireMastic-HPE™** should be stored indoors in a dry, frost-free environment below 30°C. **FireMastic-HPE™** has an expected shelf life of approximately 24 months.

12. HEALTH AND SAFETY

To learn more about the safe handling of **FireMastic-HPE™**, see the Safety Data Sheet available at bossfire.com.au.



SAFETY CAUTION: FireMastic-HPE™ contains graphite to provide its high performance intumescent, it is therefore highly conductive of electricity. Extreme caution is needed to ensure FireMastic-HPE™ does not come into contact with live current or electrically charged equipment, as electric shock may occur. When using FireMastic-HPE to firestop around power cables, check to make sure that the cables' insulation is free from defects. For more information on this please contact BOSS Fire & Safety Technical Services on 1300 502 677.

13. IS THIS PUBLICATION CURRENT?

This document may be superseded by new versions. If you are unsure of whether or not this document is a current publication, please contact us. **AU:** 1300 502 677 **NZ:** 0800 502 677 **Int:** +61 2 9524 4040 **Email:** info@bossfire.com

14. LIMITATION

BOSS Passive Fire Pty Ltd has provided the above technical information in good faith and to the best of its knowledge. This information was deemed to be correct at the time of publication. Should any data come to BOSS Passive Fire's attention relating to the fire resistance or performance of the product described BOSS Passive Fire reserve the right to amend this report.

BOSS Passive Fire strive to constantly improve and develop products so this information may change without notice. The information contained herein has been developed as a guide only and it does not constitute a guarantee of compliance of all applications. Each project and/or application may have specific requirements and you should investigate these carefully. Ensure that you have read and understood the appropriate certification relative to your needs, and ensure you seek acceptance from the Certifying Authority or compliance inspector before installation. For updates on the range of BOSS Fire® certification, please contact BOSS Technical Services. **AU:** 1300 502 677 **NZ:** 0800 502 677 **Int:** +61 2 9524 4040 **Email:** info@bossfire.com



Further Information

For additional technical information on the performance of **FireMastic-HPE™**, other **BOSS Fire®** products or any other BOSS Fire® related information please contact us on:



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