

# FireMastic-HPE™

*The ultimate high pressure exerting fire sealant for plumbing, electrical & HVAC/R services.*  
*Approved to AS1530.4: 2014 & AS4072.1-2005*



## Technical Data Sheet

Edition 6

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*The ultimate High Pressure Exerting FR sealant...*

**BOSS Passive Fire Pty Ltd**

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**Distributed By Potter Interior Systems**

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## KEY BENEFITS

- Class leading proven 4HR high-performance fire sealant
- High pressure 40x expansion rate
- uPVC Pipes up to 80mm
- Suitable for PEX & PEX AL Water & Gas pipes
- Various power and comms cable bundles
- Extensive variety of A/C Paircoil bundles
- Approved for use on copper pipes up to 60mm with Armaflex insulation
- Compatible with Lubrizol and Spears cPVC products
- Approvals for single & double layer plasterboard systems, concrete, masonry, Hebel & Speedpanel
- Suitable for control joints



## 1. INTRODUCTION

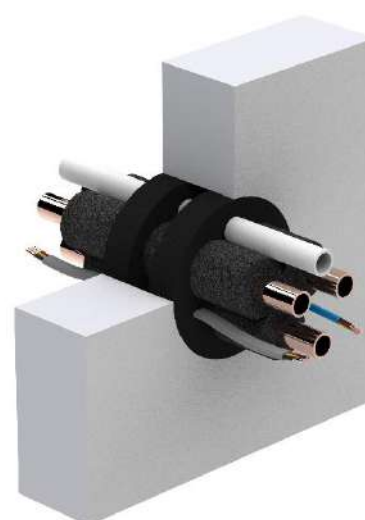
**FireMastic-HPE™** is a graphite-based, High Pressure Exerting FR sealant used to reinstate the fire resistance performance of wall, floor & ceiling systems. Under heat, **FireMastic-HPE™** will expand with enough pressure to close combustible pipes and seal around cables and metal pipes to maintain 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 in control joints or 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. PRODUCT FEATURES

- Sealing combustible and non-combustible penetrations.
- Sealing around metal pipes with insulated lagging remaining on the pipe.
- Easy gunning and tooling.
- Odourless.
- Sealing of power and comms cables.
- Easy clean up with water.
- Approved on a wide range of single and double layer plasterboard systems.
- Approved for a wide variety of other wall types including concrete, masonry, Hebel and Speedpanel.
- Internal use only, can be painted.



**Table 1. PHYSICAL SPECIFICATION**

<b>Sizes:</b>	310ml / 600ml
<b>Product code:</b>	FMHPE-3 / FMHPE-6
<b>Colour:</b>	Charcoal Grey
<b>Density:</b>	1.23-1.33g/cm <sup>3</sup>
<b>Application Temperature:</b>	+5°C to 30°C
<b>Expansion Onset Temperature:</b>	180°C
<b>Cure rate:</b>	1.7mm per 24 hours. Cure for min 28 days curing before fire exposure.
<b>pH:</b>	6-9
<b>Skin time:</b>	15 minutes @ 25°C/50%RH
<b>Manufacture:</b>	ISO 9001:2008
<b>FRL:</b>	Up to -/240/240
<b>Acoustic Rating:</b>	Up to Rw (C;Ctr): 64 (-2;-7) in partition. Rw (C;Ctr): 52 (-1;-6) sealant only.
<b>Certification:</b>	AS1530.4: 2014, AS4072.1-2005, EN ISO 10140-2:2010
<b>VOC:</b>	18g/Litre SCAQMD

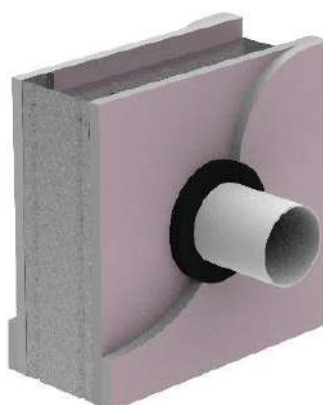
### 3. APPROVED APPLICATIONS

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:

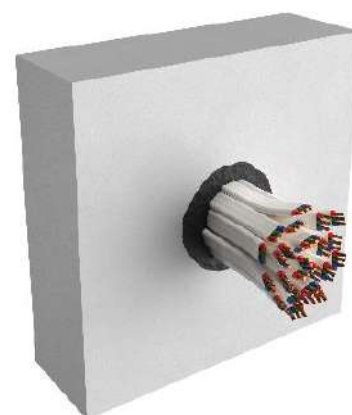
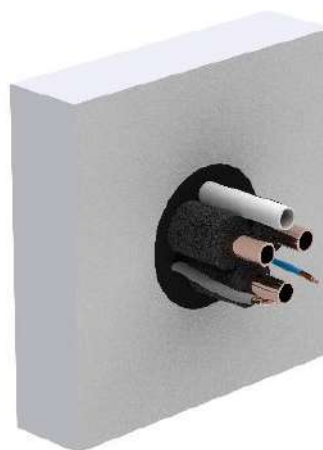
#### Plumbing:

- PEX Water Pipes
- PEX AL Gas Pipes
- cPVC Sprinkler Pipes
- uPVC DWV and Non DWV Pipes
- PP-R Polypropylene Pipes
- Faucet & Tap Sets



#### Electrical:

- TPS Power Cables
- Orange Circular Mains Cables
- Data / Comms Cables
- CAT6 Cables
- Fire Alarm Cables
- Conduits



#### HVAC/R:

- Lagged Copper Pipes
- Unlagged Copper Pipes
- Paircoil Bundles (including cables)

#### Construction Details:

- Control Joints
- Timber Penetrations

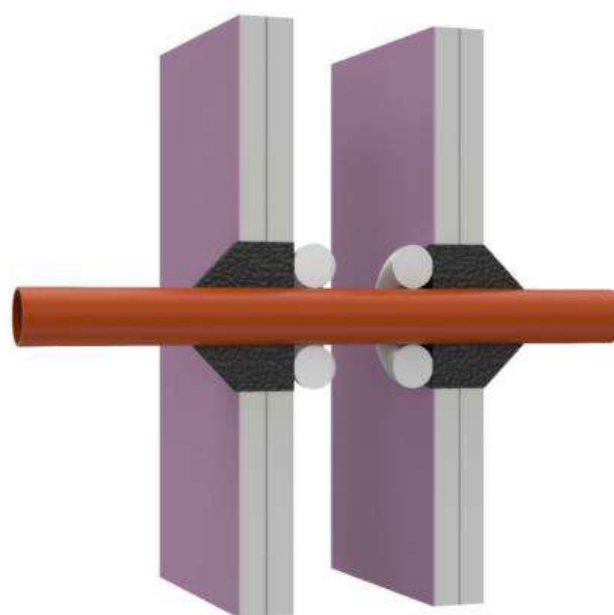
#### 4. FBC™ System Compatible



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.

#### 5. 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.



## 6. 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.

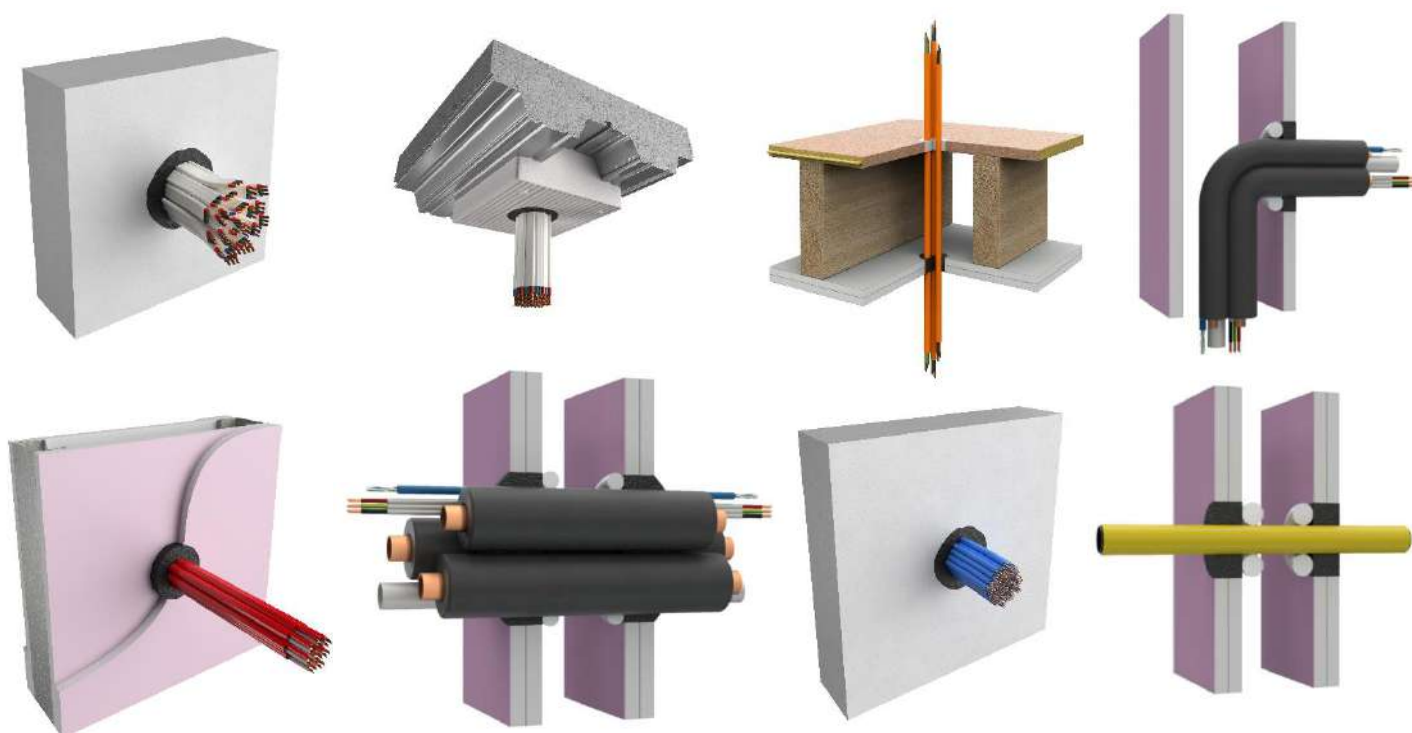
Ensure that you read and understand the appropriate certification and how it relates to your specific construction details, and ensure you seek acceptance from the Certifying Authority or compliance inspector before installation.

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. +612 9531 8591 OR [info@bossfire.com.au](mailto:info@bossfire.com.au)

## 7. 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](https://bossfire.com.au/resources).



## 8. INSTALLATION



1. Ensure that the gap, aperture and/or services in question are tested with BOSS FireMastic-HPE™ and the site conditions are within the application specification.



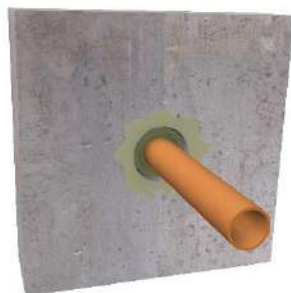
2. Cut the appropriate size aperture in accordance with the tested system.



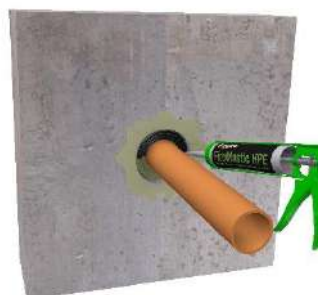
3. Ensure the opening and any surface / substrate which the product will come into contact with is clean, dry, free of dust and loose particles and free from oil or grease.



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.



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.**

5. Cut nozzle to required bead size and apply sealant around the service and fill the void to the surface

## 9. 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. BOSS FireMastic-HPE™ has an expected shelf life of approximately 24 months.

## 10. HEALTH AND SAFETY

To learn more about the safe handling of FireMastic-HPE™, see the Safety Data Sheet available at [bossfire.com.au](http://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.

## 11. 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 call us on +61 2 9531 8591 to confirm.

## 12. 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 on +61 2 9531 8591.

## 13. FURTHER INFORMATION

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

### **AU:**

1300 502 677  
[Bossfire.com.au](http://Bossfire.com.au)

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