

# FireSilicone-EMA™

*Highly flexible, fire-rated silicone sealant for up to 5 hours fire protection*  
*Approved to AS1530.4: 2014 & AS4072.1-2005*



## Technical Data Sheet

Edition 4

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*Industry leading 5 hours fire protection...*

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## KEY BENEFITS

- Highly flexible
- Linear joints approved up to 60mm wide
- Fire resistant up to 5 hours
- Assumed working life of 25 years
- Prevention of air leakage
- Excellent acoustic isolation properties
- Approved to AS1530.4: 2014 & AS4072.1-2005



## INTRODUCTION

FireSilicone-EMA™ is a fire resistant silicone sealant. It is a one-part, neutral curing silicone for construction joints and service penetrations. FireSilicone-EMA™ cures at room temperature under the action of atmospheric moisture to give a permanently silicone rubber. It has excellent adhesion to porous and non-porous substrates used in the construction industry and offers high performance fire-rated silicone sealant for fire sealing applications up to 60mm. With excellent flexibility and weatherability, it offers up to 300 minutes fire resistance.

## APPLICATIONS

FireSilicone-EMA™ can be used for a variety of applications:

- Linear Gap seals
- Construction Control Joints
- Service Penetrations including:
  - Steel Copper & Iron pipes
  - Lagged Steel, Copper & Iron pipes with Thermobreak Lagging
  - Electrical cables
  - Telecommunications cables



## BENEFITS

- Fire resistance testing up to 300 minutes (5 Hours)
- Linear joints up to 60mm wide
- Excellent acoustic isolation properties
- Air permeability testing to 600Pa
- Fire resistant up to 5 hours in vertical joints
- Non-slump, easy to apply and tool off
- Highly flexible +/- 25% Movement

**For detailed performance information refer to Section - Performance Specification beginning on page 3.**

## SPECIFICATION

Packaging	310ml Cartridge
Colour	White, Grey or Black
Slump	≤ 5mm
Density	1.38 g/cm <sup>3</sup> nominal
Movement	+/- 25%
Storage Conditions	To be stored in dry conditions between 5°C - 30°C
Cure Rate	3mm per day at 50% relative humidity 23°C
Shore A Hardness	25 Nominal
Application Temp	Aperture needs to be 5°C or above at time of installation.
Tack Free	30 mins at 23°C, 50% RH
Elastic Recovery	≤ 80%
Fire Resistance	Up to 5 hours – Refer to Performance Specification section for detailed information

## PERFORMANCE SPECIFICATIONS

FireSilicone-EMA™ is approved to AS1530.4-2014, and AS4072.1-2005 offering up to FRL -/300/300. It also carries approvals for EN1366-4. Please refer to the further tables contained in this document for specific performance information relevant to each various applications.

### **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)**

## LINEAR GAP SEALS / CONSTRUCTION JOINTS

Element	Substrate	Seal Location	Joint Width	Seal Depth	Backing	FRL
<b>Certification Reference: FAS 190037 R1.3</b>						
Floor	Min 150mm Autoclaved Aerated Concrete (AAC), normal weight concrete or masonry blocks.	Top Side Only	12mm	6mm	1 x 13mm Ø P.E. Foam	-/240/120
Floor		Top Side Only	30mm	15mm	1 x 30mm Ø P.E. Foam	-/240/180
Floor		Top Side Only	50mm	25mm	2 x 25mm Ø P.E. Foam	-/240/60
Floor		Top Side Only	60mm	30mm	3 x 20mm Ø P.E. Foam	-/240/120
Floor		Top Side Only	60mm	6mm	Stone Wool Insulation 50mm Thick	-/240/180
Floor		Under Side Only	60mm	6mm	Stone Wool Insulation 50mm Thick	-/90/60
Wall		Both Sides	12mm	6mm	1 x 13mm Ø P.E. Foam	-/300/300
Wall		Both Sides	30mm	15mm	1 x 30mm Ø P.E. Foam	-/300/300
Wall		Both Sides	50mm	25mm	3 x 13mm Ø P.E. Foam	-/240/180
Wall		Both Sides	60mm	5mm	Stone Wool Insulation 50mm Thick to Both Sides	-/240/240

**P.E. Foam: Polyethylene backing rod**

**Stone Wool Insulation: 50mm Thick (nominal density 45.2kg/m<sup>3</sup>)**



## UNINSULATED METAL PIPES

Element	Substrate	FRL	Service Type	Service Size	Primary Fire Stopping Elements	Secondary Fire Stopping Element	Tertiary Fire Stopping Element	Cert Ref
Walls	Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -FR Plasterboard / GIB -Concrete -Solid & Hollow Masonry  Walls with Build Up to Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -Speedpanel & Korok -AAC / Hebel -Pronto Panel -Supa Panel  Build up options - 100mm clearance from perimeter of service: -BOSS Batt -FR Plasterboard	Wall must be minimum 96mm Thick: -/90/90  Or  Wall must be minimum 116mm Thick: -/120/120	Steel & Iron Pipes	32mm - 113mm Ø	FireMastic-300™ or FireSilicone-EMA™ - 20mm x 20mm fillet both sides - Annular Gap Min 25mm depth both sides	Thermal Defence Wrap - 300mm Both Sides	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0
				113mm - 159mm Ø		Thermal Defence Wrap - 600mm Both Sides		
			Copper Pipes	32mm - 54mm Ø		Thermal Defence Wrap - 300mm Both Sides		
				54mm - 159mm Ø		Thermal Defence Wrap - 600mm Both Sides		
Floors	Min 150mm Concrete	-/120/120	Steel, Copper & Iron Pipes	32mm - 159mm Ø	FireMastic-300™ or FireSilicone-EMA™ - 20mm x 20mm fillet top side only. - Annular Gap Max 20mm Min 25mm depth top side	Thermal Defence Wrap - Double wrapped top side only. -First layer must extend 600mm from face of slab. -Second layer must extend 300mm from face of slab.	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0

*The table above only relates to BOSS Fire® solutions using the UniWrap® product. For other BOSS Fire® products that offer certified uninsulated & insulated metal pipe penetration systems please refer to previous page of this TDS or consult the BOSS Fire® website - [bossfire.com](http://bossfire.com)*



## INSULATED METAL PIPES

Element	Substrate	FRL	Service Type	Service Size	Primary Fire Stopping Elements	Secondary Fire Stopping Element	Tertiary Fire Stopping Element	Cert Ref
Walls	Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -FR Plasterboard / GIB -Concrete -Solid & Hollow Masonry  Walls with Build Up to Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -Speedpanel & Korok -AAC / Hebel -Pronto Panel -Supa Panel  Build up options - 100mm clearance from perimeter of service: -BOSS Batt -FR Plasterboard	Wall must be minimum 96mm Thick: -/90/90  Or  Wall must be minimum 116mm Thick: -/120/120	Thermobreak Lagged Steel & Iron Pipes  Lagging Thickness: 30 – 50mm	32mm - 113mm Ø	UniWrap® (Multiple Layers) - Fitted Both Sides  FireMastic-300™ or FireSilicone-EMA™ - 20mm x 20mm fillet both sides - Annular Gap Min 25mm depth both sides	Thermal Defence Wrap - 300mm Both Sides	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0
				113mm - 159mm Ø				
			Thermobreak Lagged Copper Pipes  Lagging Thickness: 30 – 50mm	32mm - 54mm Ø		Thermal Defence Wrap - 300mm Both Sides		
				54mm - 159mm Ø				
Floors	Min 150mm Concrete	-/120/120	Thermobreak Lagged Steel, Copper & Iron Pipes  Lagging Thickness: 30 – 50mm	32mm - 159mm Ø	UniWrap® (Multiple Layers) - Fitted Both Sides  FireMastic-300™ or FireSilicone-EMA™ - 20mm x 20mm fillet top side only. - Annular Gap Max 20mm Min 25mm depth top side	Thermal Defence Wrap - Double wrapped top side only. -First layer must extend 600mm from face of slab. -Second layer must extend 300mm from face of slab.	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0

*The table above only relates to BOSS Fire® solutions using the UniWrap® product. For other BOSS Fire® products that offer certified uninsulated & insulated metal pipe penetration systems please refer to previous page of this TDS or consult the BOSS Fire® website - bossfire.com*



## ELECTRICAL & TELECOMMUNICATIONS CABLES

Element	Substrate	FRL	Service Type	Primary Fire Stopping Elements	Secondary Fire Stopping Element	Tertiary Fire Stopping Element	Cert Ref
Walls	Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -FR Plasterboard / GIB -Concrete -Solid & Hollow Masonry  Walls with Build Up to Min 100mm (90min FRL) or 116mm (120min FRL) Thick: -Speedpanel & Korok -AAC / Hebel -Pronto Panel -Supa Panel  Build up options - 100mm clearance from perimeter of service: -BOSS Batt -FR Plasterboard	Wall must be minimum 96mm Thick: -/90/90  Or  Wall must be minimum 116mm Thick: -/120/120	Cables in general accordance with Appendix D1 and D2 as per AS1530.4: 2014 (except 4 x 185mm <sup>2</sup> and 1 x 630mm <sup>2</sup> ).  Cables Include:  Up to 2.5mm <sup>2</sup> 2C+E TPS Power Cable  Up to 3 x 6mm <sup>2</sup> 3C+E Power Cables  Up to 8 x 16mm <sup>2</sup> 3C+E Power Cables  Up to 60 x 50 pair, 0.5mm Telecommunications Cables	FireMastic-300™ or FireSilicone-EMA™  - 50mm x 50mm fillet both sides - Annular Gap Min 25mm depth both sides	Thermal Defence Wrap - 600mm Both Sides	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0
Floors	Min 150mm Concrete	-/120/120	Cables for standard configuration EN1366-3: 2009 including:  Power Cables:  A1 – PVC/PVC 5mm x 1.5mm <sup>2</sup> - Approx. Dia 14mm  A1 – EPR/PO 5mm x 1.5mm <sup>2</sup> - Approx. Dia 11.2-14.4mm  A1 – XLPE/EVA 5mm x 1.5mm <sup>2</sup> - Approx. Dia 13mm  B – PVC/PVC 1mm x 95mm <sup>2</sup> - Approx. Dia 18-21mm  D1 – PVC/PVC 4mm x 185mm <sup>2</sup> - Approx. Dia 52mm  D2 – EPR/PO 4mm x 185mm <sup>2</sup> - Approx. Dia 64-80mm  D3 – XLPE/EVA 4mm x 185mm <sup>2</sup> - Approx. Dia 58mm  Telecommunications Cables:  G1 – PVC/- 1mm x 95mm <sup>2</sup> - Approx. Dia 14.1-17.1mm  G2 – PVC/- 1mm x 185mm <sup>2</sup> - Approx. Dia 19.3-23.3mm	FireMastic-300™ or FireSilicone-EMA™  - 20mm x 20mm fillet top side only. - Annular Gap Max 20mm Min 25mm depth top side	Thermal Defence Wrap - Double wrapped top side only. -First layer must extend 600mm from face of slab. -Second layer must extend 300mm from face of slab.	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS200332 R1.0

The table above only relates to BOSS Fire® solutions using the FireSilicone-EMA® product. For other BOSS Fire® products that offer certified electrical and telecommunications cable penetration systems please refer to previous page of this TDS or consult the BOSS Fire® website - [bossfire.com](http://bossfire.com)

## INSTALLATION

1. Ensure that the gap, aperture and/or services in question are tested with BOSS FireSilicone-EMA™ and the site conditions are within the application specification.
2. Ensure all surfaces are clean, dry and free from dust, oil or grease.
3. Use masking tape to provide straight edges around surfaces, if required for aesthetics.
4. Please refer to Performance Specification tables to determine if applicable backing rod required.
5. Cut nozzle to required bead size and apply to substrate via a caulking gun to the appropriate depth and size of seal as documented in performance specification tables. Smooth out sealant with a wet spatula within 5 minutes for professional finish.
6. Clean tools immediately after use.
7. Tack dry within 30mins, cures 3mm per 24hrs.

## STORAGE & DISPOSAL

Store in cool, dry, well ventilated areas. Store in original containers between +5°C and +25°C. Storage outside these parameters will dramatically reduce shelf life and invalidates all product warranties.

## HEALTH AND SAFETY

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

## 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.

## LIMITATION

BOSS Fire & Safety 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 Fire & Safety's attention relating to the fire resistance or performance of the product described, BOSS Fire & Safety reserve the right to amend this report.

BOSS Fire & Safety 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. +61 2 9531 8591

## FURTHER INFORMATION

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

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