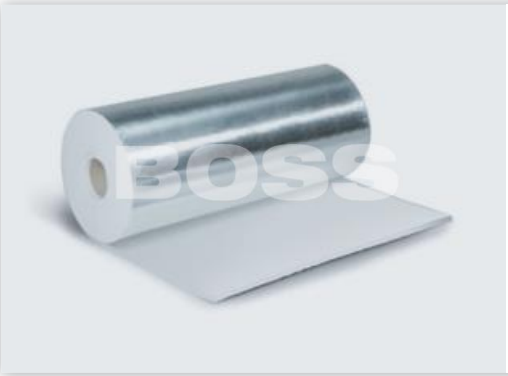
BOSS PASSIVE FIRE

Thermal Defence Wrap

Ultra-thin high performance insulation wrap for service penetrations.

Approved to AS1530.4: 2014 & AS4072.1-2005



Technical Data Sheet

Edition 4
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Ultra-thin high performance insulation wrap…

POTTER INTERIOR SYSTEMS

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KEY BENEFITS

- Provides excellent insulation to services off the penetration seal
- Ultra-thin wrap, ideal for tight spaces
- Speed and ease of installation
- Easy to wrap, shape and cut
- High level of insulation, high temperature stability
- Approved to AS1530.4: 2014 & AS4072.1-2005

INTRODUCTION

The Thermal Defence Wrap is designed to maintain necessary insulation on metal or heat conductive services and prevent temperature rise of services that pass through a fire rated compartment during a fire.

The BOSS Thermal Defence System consists of 2 elements:

1. Thermal Defence Wrap (TDW) installed around the penetrating services, and
2. An aperture seal of either BOSS FireMastic-300™, FireSilicone-EMA™, UniWrap® and for oversized apertures BOSS Batts or BOSS Fire Pillows.

APPLICATION

BOSS Thermal Defence System is designed for maintaining compartmentalisation where services, such as cables and metal pipes, penetrate fire rated walls and floors offering up to 2 hours insulation.

BOSS proven passive products provide excellent protection, both in maintaining the integrity of the fire rated seal and also in insulating the service.

BOSS Thermal Defence Wrap can be used to insulate:

- Power Cables
- Telecommunications Cables
- Cable trays
- Steel Copper & Iron Pipes
- Lagged Steel, Copper & Iron Pipes with Thermobreak® Lagging

BOSS Thermal Defence Wrap is suitable for use in any building which has single or multiple services penetrating fire rated compartment walls and floors. Typical building projects include:

- Retail stores and shopping centres
  Residential apartments
- Commercial buildings
- Power stations / substations
- Factories / industrial applications
- Office fit-outs

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

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PHYSICAL SPECIFICATIONS

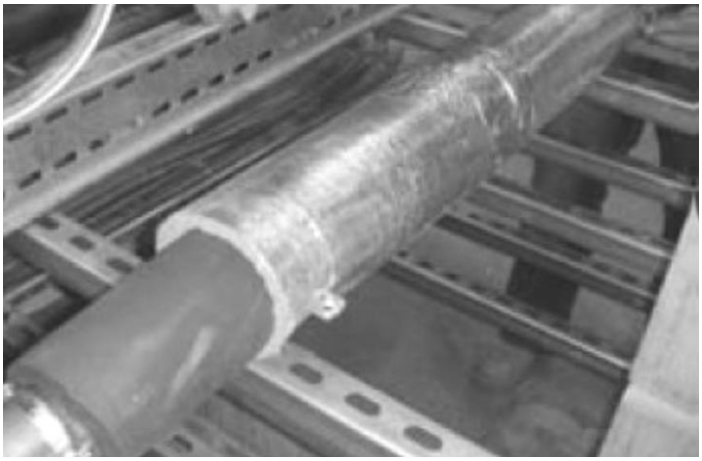
Product Code	Dimensions
TD-300	300mm Wide x 10m Roll
TD-600	610mm Wide x 10m Roll (Made to Order)

PERFORMANCE SPECIFICATIONS

BOSS Thermal Defence Wrap has approvals to AS1530.4: 2014 and AS4072.1-2005 for a variety of applications, insulating heat-conductive services for up to 120 minutes. Applications include lagged steel, copper & iron pipes, steel sprinkler pipes, mains power cables, TPS circuit cables, telecommunications cables and cable trays.

Approved substrates include a wide range on a range of wall types including FR plasterboard, concrete, solid & hollow masonry, AAC, Hebel, Speedpanel, Korok, Pronto Panel, Supa Panel & AFS.

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



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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		
Ceiling	Min 26mm FR Plasterboard - Overall 235mm Ceiling Floor System	-/60/60 -/90/90	Galvanised Steel Sprinkler Pipe 32mm	42.8mm Ø	UniWrap® 1 x Layer fitted to ceiling side outside of wrap. FireMastic-300™ seal.	FireMastic-300™ -Flush Seal over UniWrap® and to annular gap floor side.	Thermal Defence Wrap – 105mm Length, 50mm overlap.	SFC FRT180474.1
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 Thermal Defence Wrap 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

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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		Thermal Defence Wrap - 600mm Both Sides		
			Thermobreak Lagged Copper Pipes Lagging Thickness: 30 – 50mm	32mm - 54mm Ø		Thermal Defence Wrap - 300mm Both Sides		
				54mm - 159mm Ø		Thermal Defence Wrap - 600mm Both Sides		
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

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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 185mm² and 1 x 630mm²). Cables Include: Up to 2.5mm² 2C+E TPS Power Cable Up to 3 x 6mm² 3C+E Power Cables Up to 8 x 16mm² 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 1.5mm² - Approx. Dia 14mm A1 – EPR/PO 5mm x 1.5mm² - Approx. Dia 11.2-14.4mm A1 – XLPE/EVA 5mm x 1.5mm² - Approx. Dia 13mm B – PVC/PVC 1mm x 95mm² - Approx. Dia 18-21mm D1 – PVC/PVC 4mm x 185mm² - Approx. Dia 52mm D2 – EPR/PO 4mm x 185mm² - Approx. Dia 64-80mm D3 – XLPE/EVA 4mm x 185mm² - Approx. Dia 58mm Telecommunications Cables: G1 – PVC/- 1mm x 95mm² - Approx. Dia 14.1-17.1mm G2 – PVC/- 1mm x 185mm² - Approx. Dia 19.3-23.3mm	FireMastic-300™ or FireSilicone-EMA™ - 50mm x 50mm 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 Thermal Defence Wrap 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

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HEALTH AND SAFETY

To learn more about the safe handling of BOSS Thermal Defence Wrap, see the Safety Data Sheet available at www.bossfire.com.au

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 Thermal Defence Wrap, other BOSS Fire® products or any other BOSS Fire® related information please contact us on:

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