

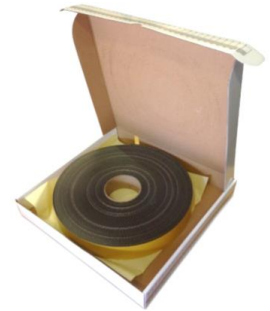
UniWrap®

Universal intumescent pipe wrap for protecting combustible penetrations from fire
Approved to AS1530.4: 2014 & AS4072.1-2005



Technical Data Sheet

Edition 3
March 2021



Universal high expansion performance wrap...

KEY BENEFITS

- Universal length for versatility and ease of installation
- Contains innovative high temp mesh for directional expansion
- Can be used on plastic/PVC pipes as well as insulated or lagged metal pipes
- High performance through high expansion rate
- Halogen free, contains no asbestos, ceramic or mineral fibres
- Cost effective
- Carry one product, not a different product for each size pipe

INTRODUCTION

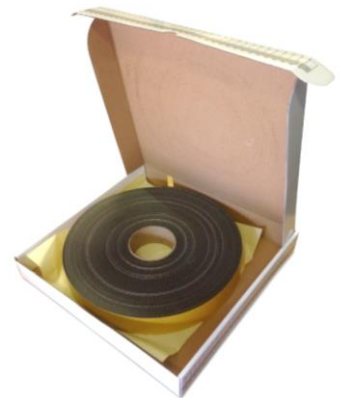
UniWrap® is designed and tested to seal service penetration apertures containing plastic and metallic pipes with insulation, using thermoplastic composites based on graphite intumescent technology. Developed to provide a high volume expansion and pressure seal during a fire, UniWrap® is approved in a wide variety of substrates.

UniWrap® has approvals in the following substrates:

- FR Plasterboard walls
- Concrete & Masonry walls
- BOSS Batt
- AAC / Hebel
- Speedpanel
- Pronto Panel
- Supapanel
- Concrete floor slabs

Approvals for a wide variety of services:

- uPVC Pipes
- cPVC Sprinkler Pipes
- Lagged Steel, Copper & Iron Pipes with Thermobreak® Pipe Insulation
- Steel Sprinkler Pipes
- PEX Water Pipes



SPECIFICATION

- Approvals for walls, floors and ceilings.
- Causes no known effects to plastic pipes.
- Suitable for wall and floor installation.
- The product is based on a thermoplastic composite and is therefore non-toxic.
- Halogen free, contains no asbestos, ceramic or mineral fibres.
- Not affected by fungus, vermin or rodents.

Width (Nominal)	40mm
Thickness (Nominal)	2mm per layer
Density	1.3 kg/m ³
Volume Expansion at 450°C	Approximately 25 times
Fire Resistance	Up to 2 hours

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

PERFORMANCE SPECIFICATIONS

UniWrap® has an extensive array of fire approvals including AS1530.4: 2014, AS4072.1-2005 & EN1366 offering up to FRL -/120/120. Please refer to the further tables contained in this document for specific performance information relevant to individual applications approved to AS1530.4: 2014 & AS4072.1-2005. For other approvals to EN1366 please contact BOSS Technical Services on +612 9531 8591 or info@bossfire.com.au.

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

COMBUSTIBLE / PLASTIC PIPES

Service Penetration	Element	Substrate	System Description	Seal Size	FRL	Specific Dimensions	Certification Reference
PEX Pipe							
PEX Pipe 25mm	Wall	Min 118mm Thick - FR Plasterboard/ GIB, Concrete, Masonry	UniWrap® - 2 Layers in Metal Sleeve and FireMastic - 300™	5mm Annular Gap	-/60/60	25mm Ø	FRT 180403c.1
cPVC Pipe							
cPVC Pipe 25mm	Wall	Min 116mm Thick FR Plasterboard/ GIB, Concrete, Masonry	UniWrap® - 2 Layers and FireMastic - 300™	5mm x 5mm Fillet	-/120/60	33.4mm Ø	CSIRO COT 3042
cPVC Pipe 40mm	Wall	Min 116mm Thick FR Plasterboard/ GIB, Concrete, Masonry	UniWrap® - 2 Layers and FireMastic - 300™	5mm x 5mm Fillet	-/120/90	48.3mm Ø	CSIRO COT 3041
cPVC Pipe 50mm	Wall	Min 116mm Thick FR Plasterboard/ GIB, Concrete, Masonry	UniWrap® - 2 Layers and FireMastic - 300™	5mm x 5mm Fillet	-/120/90	60.3mm Ø	CSIRO COT 3044
uPVC Pipe							
uPVC Pipe 40mm	Wall	Min 116mm Thick FR Plasterboard, Concrete, Masonry	UniWrap® - 1 Layer in Metal Sleeve and FireMastic-300™	3mm Annular Gap	-/120/120	48.3mm Ø	SFC FRT180472c.1
uPVC Pipe 50mm	Wall	Min 116mm Thick FR Plasterboard Concrete, Masonry	UniWrap® - 2 Layers in Metal Sleeve and FireMastic-300™	5mm Annular Gap	-/120/120	60.3mm Ø	SFC FRT180472c.1

The table above only relates to BOSS Fire® solutions using the UniWrap® product. For other BOSS Fire® products that offer certified combustible pipe penetration systems please consult the BOSS Fire® website - bossfire.com

INSULATED METAL PIPES USING P40-MAK Wrap

Element	Substrate	FRL	Service Type	Service Size	Primary Fire Stopping Element	Secondary Fire Stopping Element	Tertiary Fire Stopping Element	Cert Ref
Walls	Min 96mm (90min FRL) or 116mm (120min FRL): -FR Plasterboard / GIB -Shaftwall / Shaftliner -Concrete -Solid & Hollow Masonry -AFS Walls with localised build up to min 96mm (90min FRL) or 116mm (120min FRL): -Speedpanel & Korok -AAC / Hebel -Pronto Panel -Supa Panel Build up options - 100mm clearance from perimeter of service: -BOSS Batt -FR Plasterboard -Calcium Silicate Board -Shaftwall / Shaftliner	Wall must be minimum 96mm Thick: -/90/90 Or Wall must be minimum 116mm Thick: -/120/120	Thermobreak Lagged Steel, Copper & Iron Pipes Lagging Thickness: 30 – 50mm	32mm - 80mm Ø	UniWrap® (Multiple Layers) - Fitted Both Sides FireMastic-300™ - Max 5mm wide x Min 5mm depth flush finish - Both Sides	P40-MAK Wrap - 300mm Both Sides	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS190346 R1.4
				80mm - 159mm Ø	UniWrap® (Multiple Layers) - Fitted Both Sides FireMastic-300™ - Max 5mm wide x Min 5mm depth flush finish - Both Sides	P40-MAK Wrap - 600mm Both Sides		
Floors	Min 150mm Concrete	-/120/120	Thermobreak Lagged Steel, Copper & Iron Pipes Lagging Thickness: 30 – 50mm	32mm Ø	UniWrap® (Multiple Layers) - Fitted Top & Bottom Side FireMastic-300™ - 10mm x 10mm fillet on top side only - Annular Gap Max 5mm wide x Min 25mm depth both sides	P40-MAK Wrap - 300mm Top Side Only	BOSS Batt - 2 x 50mm Used if needed to fire stop oversize apertures	FAS190346 R1.4
				32mm - 159mm Ø		P40-MAK Wrap - 600mm Top Side Only		

The table above only relates to BOSS Fire® solutions using the UniWrap® product. For other BOSS Fire® products that offer certified insulated metal pipe penetration systems please consult the BOSS Fire® website - bossfire.com



INSULATED & UNINSULATED METAL PIPES USING THERMAL DEFENCE WRAP

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
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

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



INSTALLATION

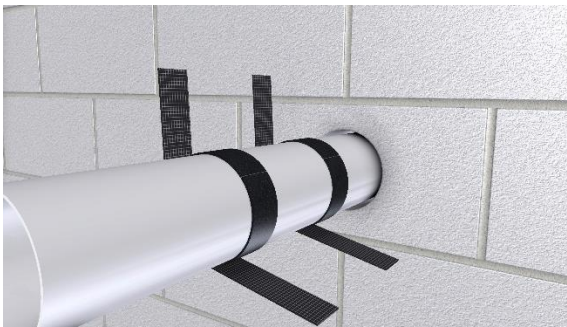
1. Check and ensure that your application is in accordance with the certified / approved system.
2. Ensure the aperture for the pipe size has adequate annular gap for the number of layers of UniWrap® to be installed, as per the appropriate approved system. Using the measurements on the side of UniWrap® box, cut the UniWrap® to the correct length to wrap fully around the pipe or insulation.



3. Where required cut metal sleeve to the appropriate thickness of the wall and place in the aperture forming to the same diameter as the aperture. (Refer to Performance specifications for details). Wrap the UniWrap® around the pipe or insulation, securing to itself via the double sided tape. For a simpler installation ensure the double sided tape does not stick the UniWrap® to the pipe / insulation itself.



4. Place additional layer(s) of wrap around the pipe or insulation if required, depending on your pipe or insulation size, and secure again with adhesive tape.



5. Push the UniWrap® into the annular gap between the wall opening and the pipe. Adjust the position of the wrap so that the edge is in line with the wall or floor surface on both sides. Seal over the top of the annular gap with FireMastic-300 in accordance with the approved system application.



6. Maintain record of installation and label in accordance with local government and building regulations as required.

HEALTH AND SAFETY

To learn more about the safe handling of BOSS UniWrap®, 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 UniWrap®, other BOSS Fire® products or any other BOSS Fire® related information please contact us on:

AU:

1300 50 2677

Bossfire.com.au**NZ:**

0800 50 2677

Bossfire.co.nz**Admin:**

+612 9531 8591

info@bossfire.com.au

Unit 1, 16 Atkinson Rd Taren Point NSW 2229 AUSTRALIA