



### CERTIFICATE OF APPROVAL No CF 5127

This is to certify that, in accordance with TS00 General Requirements for Certification of Fire Protection Products The undermentioned products of

### **FSI LIMITED**

Westminster Industrial Estate, Tamworth Road, Measham DE12 7DS Tel: 01530 515130 Fax: 01530 273564

Have been assessed against the requirements of the Technical Schedule(s) denoted below and are approved for use subject to the conditions appended hereto:

CERTIFIED PRODUCT Pyropro HPE TECHNICAL SCHEDULE TS03 Penetration Sealing Systems & TS40 Linear Joint Systems

Signed and sealed for and on behalf of Exova (UK) Limited trading as Warrington Certification

Paul Duggan Certification Manager



Issued: 23<sup>rd</sup> November 2012 Reissued: 10<sup>th</sup> November 2017 Valid to: 9<sup>th</sup> November 2022

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#### Pyropro HPE SEALANT

- 1. This approval relates to the use of Pyropro HPE intumescent sealant pipe closure and linear joint systems for fire protection where there are services penetrating walls or where by substrates abut. The detailed scope is given in the Approval Matrix included in this Certificate. This shows the acceptable configurations to provide fire resistance periods in accordance with BS EN 1366-3: 2009 and BS EN 1366-4: 2006 of up to 120 minutes for differing services and elements of construction.
- 2. This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section 2 of the Technical Standards (Scotland), Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account.'
- 3. The product is approved on the basis of:
  - i) Initial type testing
  - ii) Audit testing at the frequency specified in TS03
  - iii) A design appraisal against TS03
  - iv) Inspection and surveillance of factory production control
  - v) Production surveillance under ISO 9001:2008
- 4. The masonry or concrete walls and drywalls shall be at least 100 mm thick and have at least the same fire rating as that required for the penetration seal.
- 5. The services which may be fitted through the seals are PVC, HDPE, ABS, PP insulated copper pipes and cables as detailed within the Approval Matrix included in this Certificate.
- 6. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.

#### **Further Information**

Further information regarding the details contained in this data sheet may be obtained from FSi Limited (Tel: 01530 515130).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel:01925 646777, website: www.warringtoncertification.com)

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Inte	grity	Ins	sulation
PVC – 125mm Ø by 4.8-7.2 mm wall thickness	16 mm annulus x 25mm deep	Stone wool 30mm deep nominal 80kg/m <sup>3</sup>					
PVC – 40mm Ø by 1.9- 3 mm wall thickness HDPE – 90mm Ø by 9.2 mm wall thickness	10 mm annulus x 25mm deep 12.5 mm annulus x 25mm deep		120 mm	120 n	ninutes	120	minutes
ABS – 90mm Ø by 6mm wall thickness	12.5 mm annulus x 25mm deep	120 mm					
Copper/Steel – 60mm Ø by 0.8-14.2mm wall thickness, with 32mm Armaflex insulation	20 mm annulus x 25mm deep	N/A		120 n	ninutes	90	minutes
Copper/Steel –13 Ø by 0.8-7mm wall thickness, with 13mm Armaflex insulation	12 mm annulus x 25mm deep			120 n	ninutes	120	minutes
Walls	The walls shall be a min 2 layers of 'Type F' Gyp Masonry/concrete walls 780kg/m <sup>3</sup> and for aerate the same fire rating as t	sum board on t shall have a m ed concrete bloc hat required for	ooth faces, with inimum density cks of 600kg/m <sup>2</sup> the pipe closu	minimu for con <sup>3</sup> . All w re syste	um 50 mr crete or l valls shall m.	n stuc orick c I have	s. If at least
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall be be been be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm, with the Pyrpro HPE intumescent sealant material bot faces of the substrate.					pace	
Service Coat-Back :	Not required				U Value	e:	Not known
Service Support Requirements:	Services should be rigid than 150 mm and 450 m						

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Inte	grity	Insu	ulation
HDPE – 63mm Ø by 7.2 mm wall thickness with Cables up to Ø 21mm	300mm wide x 100mm high x 25mm deep	N/A	120 mm	120 m	ninutes	120	minutes
Cables up to Ø 21mm	300mm wide x 100mm high x 25mm deep						
Walls	The walls shall be a min of 2 layers of 'Type F' G Masonry/concrete walls 780kg/m <sup>3</sup> and for aerate the same fire rating as t	ypsum board o shall have a m ed concrete bloo	n both faces, w inimum density cks of 600kg/m	rith minin for con <sup>3</sup> . All w	mum 50 crete or l alls shall	mm st brick o	uds. f
Application Technique:	The hole for the pipe sh shall then be positioned space shall be in-filled to material both faces of th	centrally within o min 25mm, w	the hole and t	hen the	remainin	ig ann	ular
Service Coat-Back :	Not required				U Valu	e:	Not known
Service Support Requirements:	Services should be rigid further than 150 mm and faces.						

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Inte	grity	Ins	sulation	
PVC – 40mm Ø by 1.9mm wall thickness				120 m	ninutes	120	minutes	
PVC – 125mm Ø by 9.2 mm wall thickness				60 m	inutes	60	minutes	
HDPE – 90mm Ø by 9.2 mm wall thickness		N/A						
ABS – 40mm Ø by 1.9mm wall thickness	20 mm annulus x 25mm deep	100 mm	100 mm 120 minutes	ninutes	120	minutes		
HDPP – 40mm Ø by 1.9mm wall thickness	zonini deep							
Copper/Steel –40mm – 159mm Ø by 2mm- 14.2mm wall thickness, with 32mm Armaflex insulation (LS650mm)				120 m	ninutes	30	minutes	
Walls	The walls shall be a min 2 layers of 'Type F' Gyp Masonry/concrete walls 780kg/m <sup>3</sup> and for aerate the same fire rating as t	sum board on b shall have a m ed concrete bloo	both faces, with inimum density cks of 600kg/m	for con 3. All w	ım 50 mr crete or t alls shall	n stud orick c	s. f	
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall be drilled to suit the required annular space. The pipe shall be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm, with the Pyrpro HPE intumescent sealant material bot faces of the substrate.					pace		
Service Coat-Back :	Not required				U Value	e:	Not known	
Service Support Requirements:			Service Support Services should be rigidly supported via steel angles, hangars or channels, not further					

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Wall Thickness	Integrity	Insulation
Pipe Diameters As Below	20mm annulus full 50mm depth of the Stopseal Coated Batt	Single layer of 50mm Stopseal Coated Batt max 1100mm high x 750mm wide	150 mm	Rating As F Bel	•
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All walls shall have at least the same fire rating as that required for the pipe closure system.				
Application Technique:	space. The pipe shall	Batt should be cut and then be positioned cer ace shall be in-filled to naterial.	ntrally within the	hole and the	n the
Service Coat-Back :	Not required			U Value:	Not known
Service Support Requirements:Services should be rigidly supported via steel angles, hangars or channels, not further than 450 mm from the surface of the sealing system on both faces					s, not further

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE	Stopseal Coated Batt	Minimum Wall	Integrity	Insulation
	Dimensions	Datt	Thickness	integrity	mountion
Uponor MLC (Multi-Layer					
Composite) Pipe 40mm ø 4mm					
wall thickness					
Uponor MLC (Multi-Layer					
Composite) Pipe 50mm ø					
4.5mm wall thickness					
Uponor MLC (Multi-Layer	20mm				
Composite) Pipe 63mm ø 6mm	annulus full	50mm Stopseal			
wall thickness	Stopseal (		150 mm	45 minutes	30 minutes
Uponor MLC (Multi-Layer			150 mm		
Composite) Pipe 75mm ø		1100mm high x			
7.5mm wall thickness	Coated Batt	pated Batt 750mm wide			
Uponor MLC (Multi-Layer					
Composite) Pipe 90mm ø					
8.5mm wall thickness					
Uponor MLC (Multi-Layer					
Composite) Pipe 110mm ø					
10mm wall thickness					
		be a minimum of 150			
Walls	have a minimu	m density for concret	e of 780kg/m° a	and for aerate	d concrete
Walls		g/m <sup>3</sup> . All walls shall		ne same fire ra	ting as that
		e pipe closure system			
		Coated Batt should be			
Application Technique:		The pipe shall then I			
Application rechnique.	then the remaining annular space shall be in-filled to full depth of 50mm				
		E intumescent sealan	t material.	I	
Service Coat-Back :	Not required			U Value:	Not
					known
Service Support		d be rigidly supported			
Requirements:	not further than	n 450 mm from the su	urtace of the se	aling system o	on both faces

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

	Pyropro	Stopseal Coated	Minimum			
Penetration Type	HPE	Batt	Wall	Integrity	Insulation	
	Dimensions		Thickness			
500mm perforated cable tray				30 minutes	30 minutes	
Electrical cables up to 21mm ø	20mm annulus full	Single layer of 50mm Stopseal				
1 off 'C1' Cable	50mm depth of the	Coated Batt max 1100mm high x	150 mm	45		
1 off 'C2' Cable	Stopseal	750mm wide		4:	45 minutes	45 minutes
1 off 'C3' Cable	Coated Batt					
Walls	have a minimu blocks of 600kg	be a minimum of 150 m density for concret g/m <sup>3</sup> . All walls shall pipe closure system	te of 780kg/m <sup>3</sup> have at least th	and for aerate	d concrete	
Application Technique:	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled to full depth of 50mm with the Pyrpro HPE intumescent sealant material.					
Service Coat-Back :		ted with 2mm DFT P he cables both sides	0	U Value:	Not known	
Service Support		d be rigidly supported				
Requirements:	not further than	n 450 mm from the su	urface of the se	aling system o	on both faces	

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### Pyropro HPE INTUMESCENT SEALANT

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#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Wall Thickness	Integrity	Insulation
Pipe Diameters As Below	20mm annulus full 25mm depth both faces of the Stopseal Coated Batt	Double layer of 50mm Stopseal Coated Batt max 1100mm high x 750mm wide	150 mm	Rating As F Bel	
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All walls shall have at least the same fire rating as that required for the pipe closure system.				
Application Technique:	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.				
Service Coat-Back :	Not required			U Value:	Not known
Service Support Requirements:Services should be rigidly supported via steel angles, hangars or channels, not further than 450 mm from the surface of the sealing system on both faces					







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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE	Stopseal Coated Batt	Minimum Wall	Integrity	Insulation
	Dimensions		Thickness		
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	20mm annulus full 25mm depth both faces of the Stopseal Coated Batt 750mm vide		150 mm	120	120
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness		150 mm	minutes	minutes	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness		7 Somm Wide			
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness					
Walls	have a minimu blocks of 600kg	be a minimum of 150 m density for concret g/m <sup>3</sup> . All walls shall a pipe closure system	e of 780kg/m <sup>3</sup> a have at least th	and for aerated	d concrete
Application Technique:	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.				
Service Coat-Back :	Not required			U Value:	Not known
Service Support Requirements:		d be rigidly supported a 450 mm from the su			

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

	Pyropro	Stopseal Coated	Minimum			
Penetration Type	HPE	Batt	Wall	Integrity	Insulation	
	Dimensions		Thickness			
500mm perforated cable tray						
Electrical cables up to 21mm ø	20mm	Double layer of 50mm Stopseal			120 minutes	
1 off 'C1' Cable	25mm depth	Coated Batt max 1100mm high x	450	120		
1 off 'C2' Cable	both faces of the Stopseal	750mm wide	150 mm	minutes	90 minutes	
1 off 'C3' Cable	Coated Batt				120 minutes	
Walls	have a minimu blocks of 600kg	be a minimum of 150 m density for concret g/m <sup>3</sup> . All walls shall pipe closure system	te of 780kg/m <sup>3</sup> have at least th	and for aerated	d concrete	
Application Technique:	annular space. then the remain	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.				
Service Coat-Back :	*All cables coa	ted with 2mm DFT P he cables both sides	ST Coating	U Value:	Not known	
Service Support Requirements:	Services shoul	d be rigidly supported a 450 mm from the su	d via steel angl			

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Walls – Pyropro HPE EN 1366-3

Approval Matrix Walls – Py	Pyropro	Stopseal Coated	Minimum		
Pipe Size and Type	HPE	Batt	Wall	Integrity	Insulation
	Dimensions		Thickness		
Copper/Steel Pipe 40mm ø					
1.5mm -14.2mm wall thickness,					
insulated with 20mm thick foil				60 minutes	60 minutes
faced glasswool insulation min				ou minutes	ou minutes
density 80kg/m3 (CS) Continued					
Sustained					
Copper/Steel Pipe 159mm ø	15mm				
2.3mm -14.2mm wall thickness,	annulus,				
insulated with 30mm thick foil	15mm deep				
faced glasswool insulation min	both faces of				
density 80kg/m3 (CS) Continued	the Stopseal				
Sustained Steel Pipe 40mm ø 1.7mm -	Coated Batt,	Single layer of	100 mm	90 minutes	60 minutes
14.2mm wall thickness,	incorporating	50mm Stopseal			
insulated with 20mm thick foil	a 15mm fillet	Coated Batt max			
faced glasswool insulation min	projecting	600mm high x 600mm wide			
density 80kg/m3 (CS) Continued	from the face				
Sustained	of the seal				
Steel Pipe 150mm ø 2.3mm -					
14.2mm wall thickness,					
insulated with 30mm thick foil				60 minutes	60 minutes
faced glasswool insulation min					
density 80kg/m3 (CS) Continued					
Sustained	The smalle shall	ha a minimum of 40	0 mm thisls Dr		
		be a minimum of 10			
		ayers of 'Type F' Gyp Masonry/concrete wa			
Walls		ck of 780kg/m <sup>3</sup> and for			
		have at least the sam			
	closure system				
		Coated Batt should be	e cut and instal	led to suit the	required
Application Technique:	annular space.	The pipe shall then I	be positioned c	entrally within	the hole and
Application rechnique.		ning annular space s			to the both
		Pyrpro HPE intumes	cent sealant m	aterial.	
Service Coat-Back :	Not required			U Value:	Not
		11 1 1			known
Service Support		d be rigidly supported			
Requirements:	not further than	1 450 mm from the su	inace of the se	aing system o	DOID DOID TACES

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#### Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Py					
Partial Penteration Size and Type	Pyropro HPE	Backing Material	Minimum Wall	Integrity	Insulation
	Dimensions		Thickness		
Uponor water valve with tap unit	10 wide by				
fitted to project from the	25 mm mm				
unexposed face of the partition	depth				
Uponor water valve with tap unit	applied flush		100 mm	120	120
fitted to project from the	with the	N/A	100 11111	minutes	minutes
exposed face of the partition	unexposed				
	face of the				
	wall				
	The walls shall	be a minimum of 10	0 mm thick. Dry	walls shall co	mprise a
	minimum of 2 I	ayers of 'Type F' Gyp	osum board on l	ooth faces, wi	th minimum
Walls	50 mm studs.				
	The hole for th	e pipe shall be cut th	rough the parttic	on to suit the	required
Application Techniques	annular space.	The pipe shall then I	be positioned ce	entrally within	the hole and
Application Technique:	then the remain	ning annular space sl	hall be in-filled t	o min <sup>°</sup> 25mm t	to the both
	faces, with the	Pyrpro HPE intumes	cent sealant ma	terial.	
Samiaa Caat Baak	Not required	· ·			Not
Service Coat-Back :	•			U Value:	known
Service Support	N/A				
Requirements:					

### pproval Matrix Walls – Pyropro HPE EN 1366-3

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Floor Thickness	Integrity	Insulation
Pipe Diameters As Below	20mm annulus full 25mm depth both faces of the Stopseal Coated Batt	Double layer of 50mm Stopseal Coated Batt max 1100mm high x 750mm wide	150 mm	Rating As I Bel	Per Graphs ow
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.				
Application Technique:	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpr HPE intumescent sealant material.				
Service Coat-Back :	Not required			U Value:	Not known
Service Support Requirements:Services should be rigidly supported via steel angles, hangars or channels, not further than 450 mm from the surface of the sealing system on both faces					



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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE	Stopseal Coated Batt	Minimum Floor	Integrity	Insulation		
	Dimensions		Thickness				
Uponor MLC (Multi-Layer				120	120		
Composite) Pipe 40mm ø 4mm				minutes	minutes		
wall thickness				minatee	ininatoo		
Uponor MLC (Multi-Layer							
Composite) Pipe 50mm ø							
4.5mm wall thickness							
Uponor MLC (Multi-Layer	20mm			120 minutes	60 minutes		
Composite) Pipe 63mm ø 6mm	annulus full	Double layer of					
wall thickness		25mm depth both faces of he Stopseal Coated Batt Coated Batt 750mm Stopseal Coated Batt max 1100mm long x 750mm wide	150 mm				
Uponor MLC (Multi-Layer							
Composite) Pipe 75mm ø							
7.5mm wall thickness	Coated Batt						
Uponor MLC (Multi-Layer							
Composite) Pipe 90mm ø							
8.5mm wall thickness	-						
Uponor MLC (Multi-Layer							
Composite) Pipe 110mm ø							
10mm wall thickness							
		be a minimum of 150					
Floors	have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete						
	blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.						
		Coated Batt should be					
Application Technique:	annular space. The pipe shall then be positioned centrally within the hole and						
•••••	then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.						
	Not required		cent sealant m		Not		
Service Coat-Back :	Not required			U Value:	known		
Sarvica Support	Services should be rigidly supported via steel angles, hangars or channels,						
Service Support Requirements:	not further than 450 mm from the surface of the sealing system on both faces						
Nequilements.	not further that		inace of the se	anny system t	n bull laces		

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Issued: 23<sup>rd</sup> November 2012 Reissued: 10<sup>th</sup> November 2017 Valid to: 9<sup>th</sup> November 2022





### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

	Pyropro	Stopseal Coated	Minimum			
Penetration Type	HPE	Batt	Floor	Integrity	Insulation	
	Dimensions		Thickness			
500mm perforated cable tray						
Electrical cables up to 21mm ø	20mm	Double layer of 50mm Stopseal Coated Batt max 1100mm long x 750mm wide	150 mm		120 minutes	
1 off 'C1' Cable	annulus full 25mm depth			120 minutes		
1 off 'C2' Cable	both faces of the Stopseal Coated Batt				90 minutes	
1 off 'C3' Cable					120 minutes	
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floor shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floor shall have at least the same fire rating as that required for the pipe closure system.					
Application Technique:	The Stopseal Coated Batt should be cut and installed to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.					
Service Coat-Back :	*All cables coated with 2mm DFT PST Coating 300mm along the cables upper side of the seal U Value: Not known					
Service Support Requirements:	Services should be rigidly supported via steel angles, hangars or channels, not further than 450 mm from the surface of the sealing system on both faces					

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Floor Thickness	Inte	grity	Ins	sulation
Electrical cables up to 21mm Ø				180 n	ninutes	20	minutes
Electrical cables 22- 80mm Ø				120 n	ninutes	20	minutes
Non sheathed electrical cables up to 24mm Ø	Max 200mm x 200mm Min 50mm x 50mm	100mm		180 n	ninutes	15	minutes
Up to 21mm Ø telecom cables in bundles of up to 100mm Ø		deep stone wool 45kg/m <sup>3</sup>	150 mm	180 n	ninutes	15	minutes
Copper/Steel –41mm – 159mm Ø by 2.5mm- 14.2mm wall thickness, with 16mm - 32mm Armaflex insulation (CS)	20 mm annulus x 25mm deep			120 n	ninutes	120	minutes
Floor	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.						
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm to the upper surface, with the Pyrpro HPE intumescent sealant material.						
Service Coat-Back :	Not required					e:	Not known
Service Support Requirements:	Services should be rigidly supported via steel angles, hangars or channels, not further than 270 mm from the surface of the sealing system on the upper face						

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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Floor Thickness	Integrity	Insulation	
PP Pipe 110mm Ø 3.7mm wall thickness		100mm		30 minutes	30 minutes	
PP Pipe 50mm Ø 10.7mm wall thickness	20 mm annulus x 25mm deep(both faces)	deep stone wool	150 mm	120 minutes	120 minutes	
PP Pipe 110mm Ø 2.1mm wall thickness		45kg/m <sup>3</sup>		240 minutes	240 minutes	
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.					
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.					
Service Coat-Back :	Not required			U Val	Je: Not known	
Service Support Requirements:	Services should be rigidly supported via steel angles, hangars or channels, not further than 270 mm from the surface of the sealing system on upper face					



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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Floor Thickness	Integrity	Insulation	
PE Pipe 125mm Ø 7.6mm wall thickness		100mm		60 minutes	60 minutes	
PE Pipe 125mm Ø 11.4mm wall thickness	20 mm annulus x 25mm deep(both	deep stone wool 45kg/m <sup>3</sup>	150 mm	90 minutes	90 minutes	
PE Pipe 40mm Ø 4.1mm wall thickness	faces)			240 minutes	240 minutes	
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.					
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.					
Service Coat-Back :	Not required			U Valu	e: Not known	
Service Support Requirements:	Services should be rigidly supported via steel angles, hangars or channels, not further than 270 mm from the surface of the sealing system on the upper face					



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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix Floors – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Floor Thickness	Integrity	Insulation	
PVC Pipe 40mm Ø 2mm wall thickness		100mm		240 minutes	240 minutes	
PVC Pipe 114mm Ø 3.6mm wall thickness	20 mm annulus x 25mm deep(both	deep stone wool 45kg/m <sup>3</sup>	150 mm	90 minutes	45 minutes	
PE Pipe 114mm Ø 8.1mm wall thickness	faces)			120 minutes	120 minutes	
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m <sup>3</sup> and for aerated concrete blocks of 600kg/m <sup>3</sup> . All floors shall have at least the same fire rating as that required for the pipe closure system.					
Application Technique:	The hole for the pipe shall be drilled to suit the required annular space. The pipe shall then be positioned centrally within the hole and then the remaining annular space shall be in-filled to min 25mm to the both faces, with the Pyrpro HPE intumescent sealant material.					
Service Coat-Back :	Not required			U Valı	Je: Not known	
Service Support Requirements:	Services should be rigidly supported via steel angles, hangars or channels, not further than 270 mm from the surface of the sealing system on the upper face					



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### Pyropro HPE INTUMESCENT SEALANT

#### Approval Matrix – Pyropro HPE EN 1366-4

Wall Installatio								
Product Name		Pyropro HPE						
Joint Width mm	Depth mm	Backing Material Gap Face Material		al Integrit (mins)	-			
20	25	PE Backing	AAC/DW	120	120			
Application Technique	sealant to fi	Compress backing material into gap/joint to form a pocket of the correct depth for the sealant to finish flush with the surface of the wall, then infill with Pyropro HPE to a depth off 25mm. The seal is required to be formed on <b>both</b> faces/sides of the wall.						
Walls	layers of 'Ty Masonry/co and for aera	Ils shall be a minimum of 100 mm thick. Drywalls shall comprise a minimum of 2 of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. y/concrete walls shall have a minimum density for concrete or brick of 780kg/m <sup>3</sup> aerated concrete blocks of 600kg/m <sup>3</sup> . All walls shall have at least the same ng as that required for the pipe closure system.						
Resistance to Smoke:	Not evaluat	ed by this approval	Not evaluated by this					
Acoustic Rating:	BMT/MTP F	-14022	Movement Capability:	luated by this al				
Air Permeability:	Chilt/P1208	33/10						

AAC - Autoclaved aerated concrete

PE - Polyethylene

DW - Drywall

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