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	TECHNICAL SCHEDULE
Pyropro HPE	**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: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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)

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Integrity	Insulation
PVC – 125mm Ø by 4.8-7.2 mm wall thickness	16 mm annulus x 25mm deep	Stone wool 30mm deep nominal 80kg/m^3	120 mm	120 minutes	120 minutes
PVC – 40mm Ø by 1.9-3 mm wall thickness	10 mm annulus x 25mm deep	N/A			
HDPE – 90mm Ø by 9.2 mm wall thickness	12.5 mm annulus x 25mm deep				
ABS – 90mm Ø by 6mm wall thickness	12.5 mm annulus x 25mm deep				
Copper/Steel – 60mm Ø by 0.8-14.2mm wall thickness, with 32mm Armaflex insulation	20 mm annulus x 25mm deep			120 minutes	90 minutes
Copper/Steel –13 Ø by 0.8-7mm wall thickness, with 13mm Armaflex insulation	12 mm annulus x 25mm deep			120 minutes	120 minutes
Walls	The walls shall be a minimum of 120 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. Masonry/concrete walls shall have a minimum density for concrete or brick of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. All walls 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, with the Pyrpro HPE intumescent sealant material both faces of the substrate.				
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 150 mm and 450 mm from the surface of the sealing system on both faces.				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Integrity	Insulation
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 minutes	120 minutes
Cables up to Ø 21mm	300mm wide x 100mm high x 25mm deep				
Walls	The walls shall be a minimum of 120 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. Masonry/concrete walls shall have a minimum density for concrete or brick of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. All walls 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, with the Pyrpro HPE intumescent sealant material both faces of the substrate.				
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 150 mm and 450 mm from the surface of the sealing system on both faces.				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Integrity	Insulation
PVC – 40mm Ø by 1.9mm wall thickness	20 mm annulus x 25mm deep	N/A	100 mm	120 minutes	120 minutes
PVC – 125mm Ø by 9.2 mm wall thickness				60 minutes	60 minutes
HDPE – 90mm Ø by 9.2 mm wall thickness				120 minutes	120 minutes
ABS – 40mm Ø by 1.9mm wall thickness					
HDPP – 40mm Ø by 1.9mm wall thickness					
Copper/Steel –40mm – 159mm Ø by 2mm-14.2mm wall thickness, with 32mm Armaflex insulation (LS650mm)				120 minutes	30 minutes
Walls	The walls shall be a minimum of 100 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. Masonry/concrete walls shall have a minimum density for concrete or brick of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. All walls 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, with the Pyrpro HPE intumescent sealant material both faces of the substrate.				
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 270 mm from the surface of the sealing system on both faces.				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

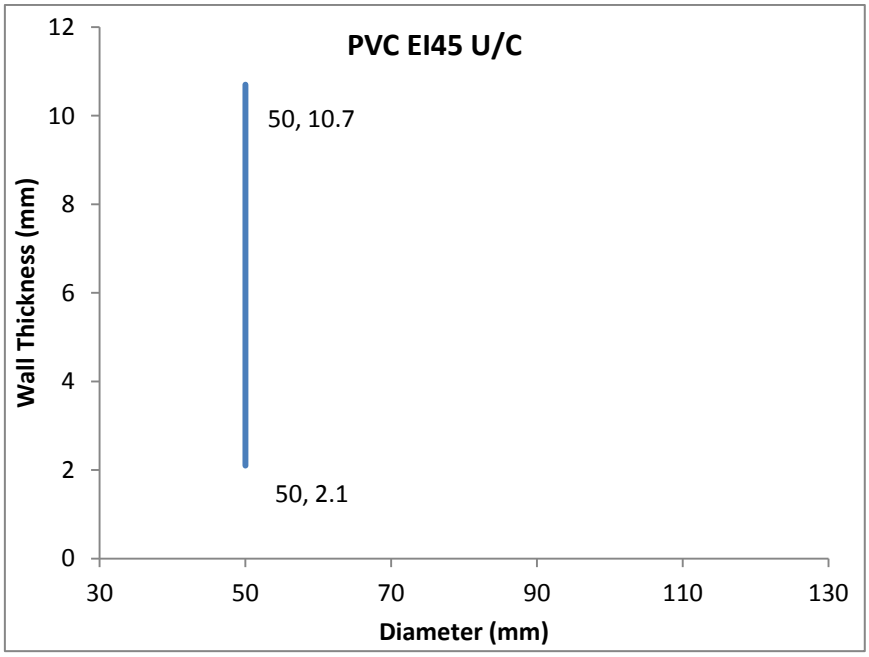
Pyropro HPE INTUMESCENT SEALANT

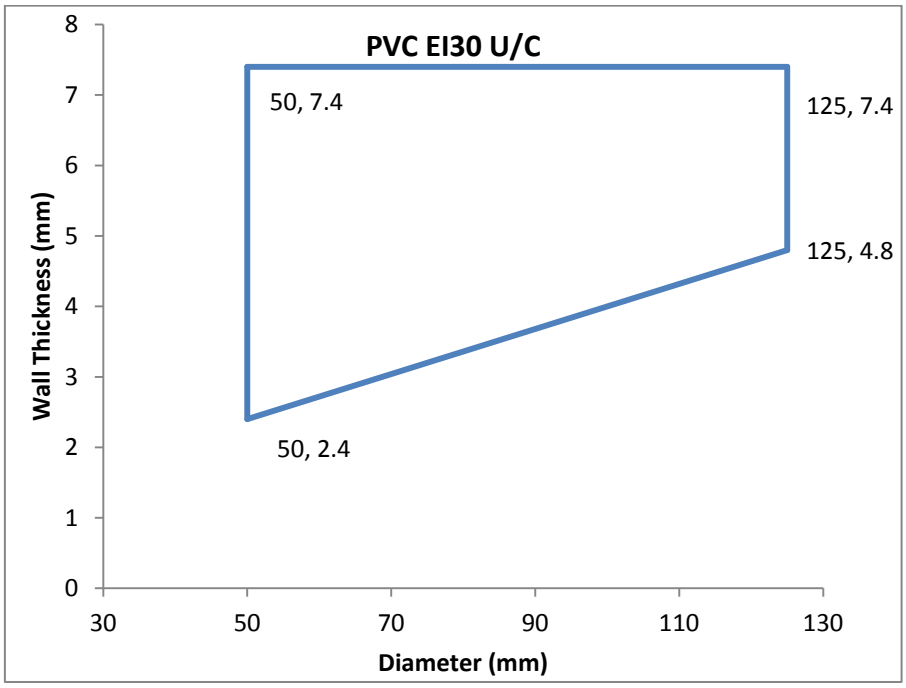
Approval Matrix Walls – Pyropro HPE EN 1366-3

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 Per Graphs Below	
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 to full depth of 50mm 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				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED





Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	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	45 minutes	30 minutes
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness					
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 to full depth of 50mm 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				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Penetration Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Wall Thickness	Integrity	Insulation
500mm perforated cable tray	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	30 minutes	30 minutes
Electrical cables up to 21mm ø				45 minutes	45 minutes
1 off 'C1' Cable					
1 off 'C2' Cable					
1 off 'C3' Cable					
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 to full depth of 50mm with the Pyrpro HPE intumescent sealant material.				
Service Coat-Back :	*All cables coated with 2mm DFT PST Coating 300mm along the cables both sides 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				

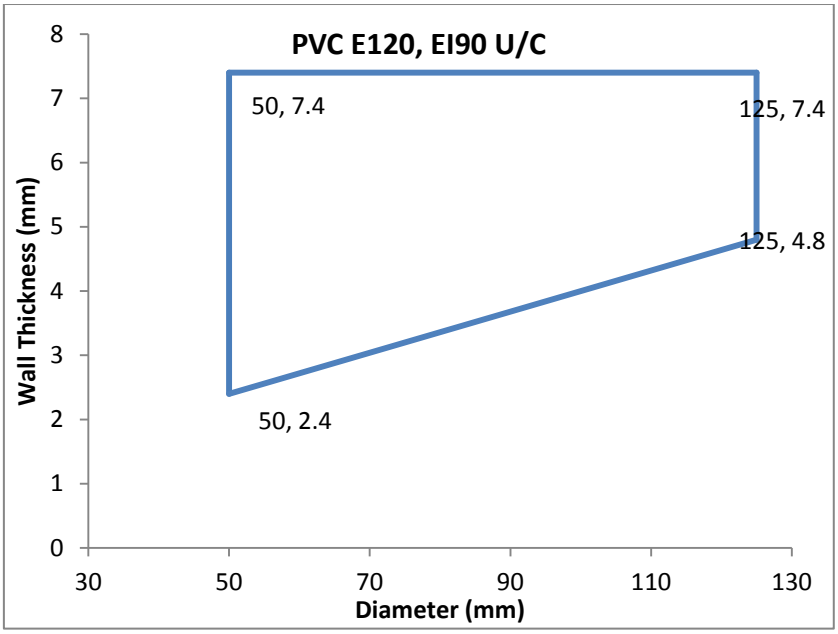
Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

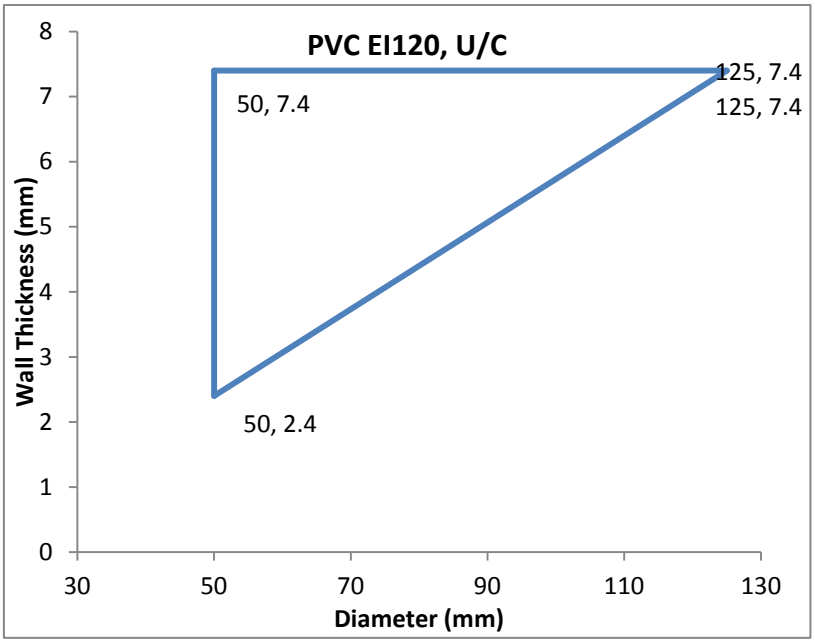
Approval Matrix Walls – Pyropro HPE EN 1366-3

Pipe Size and Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Wall Thickness	Integrity	Insulation
Pipe Diameters As Below	20mm annulus full 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 Per Graphs Below	
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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				



Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED



Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	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	120 minutes	120 minutes
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness					
Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Penetration Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Wall Thickness	Integrity	Insulation
500mm perforated cable tray	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	120 minutes	120 minutes
Electrical cables up to 21mm ø					
1 off 'C1' Cable					
1 off 'C2' Cable					90 minutes
1 off 'C3' Cable					120 minutes

Walls	The wall shall be a minimum of 150 mm thick. Masonry/concrete walls shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 :	*All cables coated with 2mm DFT PST Coating 300mm along the cables both sides 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		

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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
Copper/Steel Pipe 40mm ø 1.5mm -14.2mm wall thickness, insulated with 20mm thick foil faced glasswool insulation min density 80kg/m3 (CS) Continued Sustained	15mm annulus, 15mm deep both faces of the Stopseal Coated Batt, incorporating a 15mm fillet projecting from the face of the seal	Single layer of 50mm Stopseal Coated Batt max 600mm high x 600mm wide	100 mm	60 minutes	60 minutes
Copper/Steel Pipe 159mm ø 2.3mm -14.2mm wall thickness, insulated with 30mm thick foil faced glasswool insulation min density 80kg/m3 (CS) Continued Sustained				90 minutes	60 minutes
Steel Pipe 40mm ø 1.7mm - 14.2mm wall thickness, insulated with 20mm thick foil faced glasswool insulation min density 80kg/m3 (CS) Continued Sustained					
Steel Pipe 150mm ø 2.3mm - 14.2mm wall thickness, insulated with 30mm thick foil faced glasswool insulation min density 80kg/m3 (CS) Continued Sustained				60 minutes	60 minutes
Walls	The walls shall be a minimum of 100 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. Masonry/concrete walls shall have a minimum density for concrete or brick of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 to min 15mm 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				

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Walls – Pyropro HPE EN 1366-3

Partial Penteration Size and Type	Pyropro HPE Dimensions	Backing Material	Minimum Wall Thickness	Integrity	Insulation
Uponor water valve with tap unit fitted to project from the unexposed face of the partition Uponor water valve with tap unit fitted to project from the exposed face of the partition	10 wide by 25 mm mm depth applied flush with the unexposed face of the wall	N/A	100 mm	120 minutes	120 minutes
Walls	The walls shall be a minimum of 100 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs.				
Application Technique:	The hole for the pipe shall be cut through the parttion 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 Value:**	Not known
Service Support Requirements:	N/A				

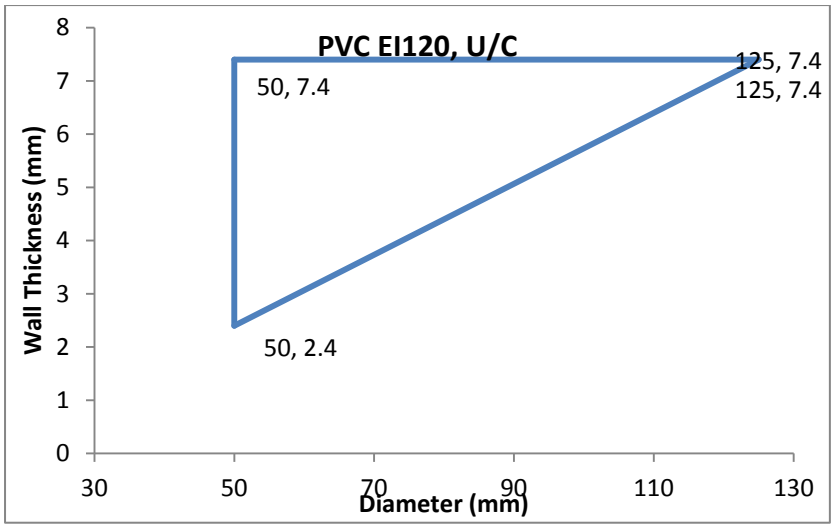
Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

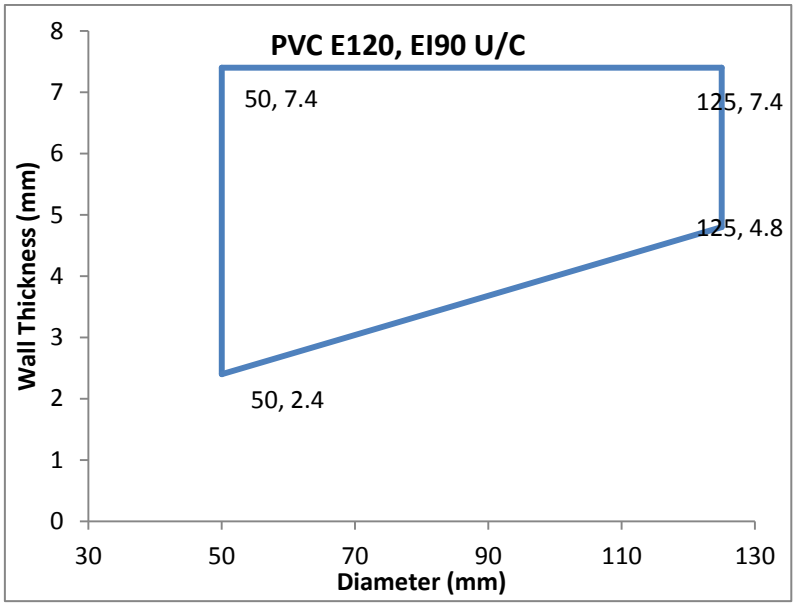
Approval Matrix Floors – Pyropro HPE EN 1366-3

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 Per Graphs Below	
Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 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				



Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED



Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	20mm annulus full 25mm depth both faces of the Stopseal Coated Batt	Double layer of 50mm Stopseal Coated Batt max 1100mm long x 750mm wide	150 mm	120 minutes	120 minutes
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness				120 minutes	60 minutes
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness					
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness					

Floors	The floor shall be a minimum of 150 mm thick. Masonry/concrete floors shall have a minimum density for concrete of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. 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 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		

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix Floors – Pyropro HPE EN 1366-3

Penetration Type	Pyropro HPE Dimensions	Stopseal Coated Batt	Minimum Floor Thickness	Integrity	Insulation
500mm perforated cable tray	20mm annulus full 25mm depth both faces of the Stopseal Coated Batt	Double layer of 50mm Stopseal Coated Batt max 1100mm long x 750mm wide	150 mm	120 minutes	120 minutes
Electrical cables up to 21mm ø					
1 off 'C1' Cable					
1 off 'C2' Cable					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^3 and for aerated concrete blocks of 600kg/m^3. 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		

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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
Electrical cables up to 21mm Ø	Max 200mm x 200mm Min 50mm x 50mm	100mm deep stone wool 45kg/m^3	150 mm	180 minutes	20 minutes
Electrical cables 22-80mm Ø				120 minutes	20 minutes
Non sheathed electrical cables up to 24mm Ø				180 minutes	15 minutes
Up to 21mm Ø telecom cables in bundles of up to 100mm Ø				180 minutes	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 minutes	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^3 and for aerated concrete blocks of 600kg/m^3. 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		**U Value:**	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				

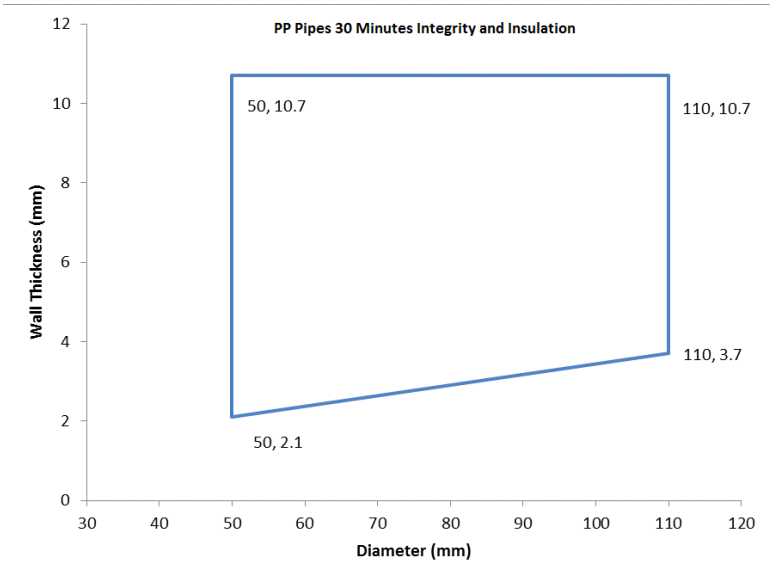
Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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	20 mm annulus x 25mm deep(both faces)	100mm deep stone wool 45kg/m^3	150 mm	30 minutes	30 minutes
PP Pipe 50mm Ø 10.7mm wall thickness				120 minutes	120 minutes
PP Pipe 110mm Ø 2.1mm wall thickness				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^3 and for aerated concrete blocks of 600kg/m^3. 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 Value:**	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				



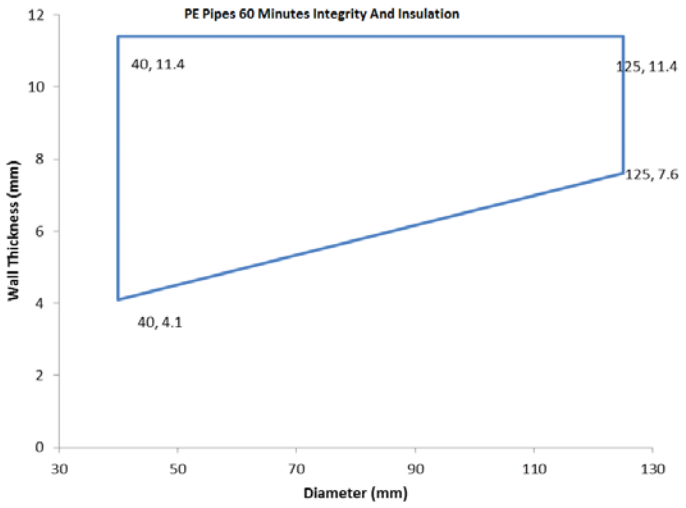
Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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	20 mm annulus x 25mm deep(both faces)	100mm deep stone wool 45kg/m^3	150 mm	60 minutes	60 minutes
PE Pipe 125mm Ø 11.4mm wall thickness				90 minutes	90 minutes
PE Pipe 40mm Ø 4.1mm wall thickness				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^3 and for aerated concrete blocks of 600kg/m^3. 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 Value:**	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				



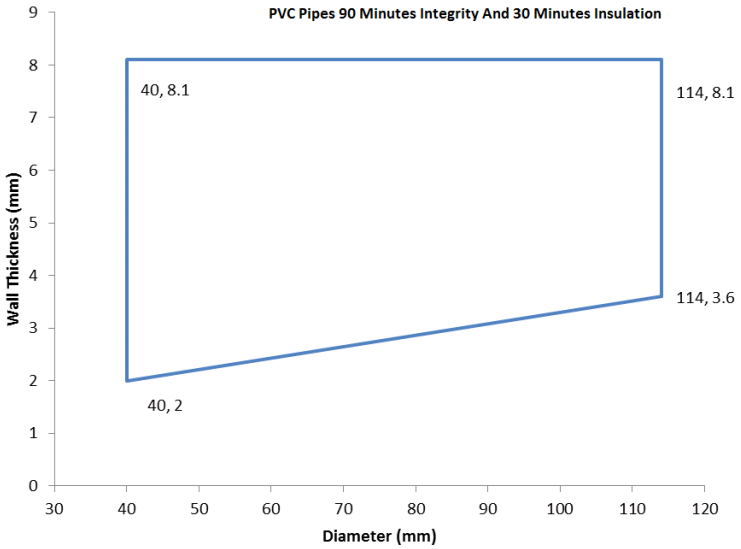
Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

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	20 mm annulus x 25mm deep(both faces)	100mm deep stone wool 45kg/m^3	150 mm	240 minutes	240 minutes
PVC Pipe 114mm Ø 3.6mm wall thickness				90 minutes	45 minutes
PE Pipe 114mm Ø 8.1mm wall thickness				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^3 and for aerated concrete blocks of 600kg/m^3. 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 Value:**	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				



Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022

CERTIFICATE No CF 5127
FSI LIMITED

Pyropro HPE INTUMESCENT SEALANT

Approval Matrix – Pyropro HPE EN 1366-4

Wall Installations					
Product Name		**Pyropro HPE**			
Joint Width mm	**Depth mm**	**Backing Material**	**Gap Face Material**	**Integrity (mins)**	**Insulation (mins)**
20	25	PE Backing	AAC/DW	120	120
Application Technique	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 **both** faces/sides of the wall.				
Walls	The walls shall be a minimum of 100 mm thick. Drywalls shall comprise a minimum of 2 layers of 'Type F' Gypsum board on both faces, with minimum 50 mm studs. Masonry/concrete walls shall have a minimum density for concrete or brick of 780kg/m^3 and for aerated concrete blocks of 600kg/m^3. All walls shall have at least the same fire rating as that required for the pipe closure system.				
Resistance to Smoke:	Not evaluated by this approval	**Weather Capability:**	Not evaluated by this approval		
Acoustic Rating:	BMT/MTP F14022	**Movement Capability:**	Not evaluated by this approval		
Air Permeability:	Chilt/P12083/10				

AAC - Autoclaved aerated concrete
PE - Polyethylene
DW - Drywall

Issued: 23rd November 2012
Reissued: 10th November 2017
Valid to: 9th November 2022