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Approved body No.:
0843

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FirePro® PWRoll

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1. Introduction

This classification report defines the classification assigned to the product FirePro® PWRoll, in accordance with the procedures given in EN 13501-2: 2023.

2. Details of classification product

2.1 General

The product FirePro® PWRoll is a 40mm wide x 2mm thick flexible high performance intumescent strip, provided on rolls, which is designed for use in the protection of combustible services. In the event of a fire, the active components provide a high-volume expansion and pressure seal, closing off the void left by combustible materials.

2.2 Product description

The element, FirePro® PWRoll, is fully described in the test reports provided in support of classification, detailed in clause 3.1.

3. Test reports in support of classification

3.1 Summary of test reports

Name of laboratory	Name of sponsor	Test reference	Test date	Test method
WarringtonFire Approved Body no. 0833	Rockwool Limited	545833/R Iss1	03.08.24	EN 1366-3-2021
		547028/R Iss1	28.09.24	
		549198/R Iss 2	28.01.25	EN 1366-3-2021 + A1: 2024
		549199/R Iss2	29.01.25	

3.2 Results

Summary of report No.: 545833/R Iss1

A range of eighteen plastic pipes were protected with FirePro® PWRoll seals within a 150 mm thick aerated concrete floor slab. The PWRoll seals were installed symmetrically to both faces such that bottom wrap was installed 5 mm from the exposed face of the slab, and top wrap was set 5 mm from the unexposed face. All pipes were installed in U/C configuration.

Test report 545833/R Iss1										
Plastic Pipes Through 150mm thick rigid floors in Accordance With EN 1366-3:2021										
REF	Service Type	Service Size (mm)	Wall Thickness (mm)	Pipe wrap layers	FirePro® AIS width (mm)	Aperture (mm)	Integrity (minutes)			Insulation (minutes)
							Cotton Pad	Sustained Flaming	Gap Gauge	
A	PVC	110	4.2	3	12.5	130	265	265	265	265
B	PVC	110	6.6	3	12.5	130	265	265	265	265
C	HDPE	110	2.7	3	12.5	130	265	265	265	265
D	HDPE	110	10	3	12.5	130	265	265	265	265
E	PP	110	2.7	3	12.5	130	265	265	265	265
F	PP	110	10	3	12.5	130	265	265	265	265
G	PVC	160	9.5	4	10	180	265	265	265	265
H	HDPE	160	9.5	4	10	180	265	265	265	265
I	PP	160	9.1	4	10	180	265	265	265	265
J	PP	40	5.5	1	12.5	60	265	265	265	265
K	PP	40	1.8	1	12.5	60	265	265	265	265
L	HDPE	40	3.7	1	12.5	60	265	265	265	265
M	HDPE	40	2.4	1	12.5	60	265	265	265	265
N	PVC	40	3	1	12.5	60	265	265	265	265
O	PVC	40	1.9	1	12.5	60	265	265	265	265
P	PVC	160	6.2	4	10	180	265	265	265	265
Q	HDPE	160	4.9	4	10	180	265	265	265	265
R	PP	160	4	4	10	180	265	265	265	265

Summary of report No.: 547028/R Iss1

A range of eighteen FirePro® PWRoll pipe penetration seals, penetrating a 100 mm thick standard EN 1366-3: 2021 flexible partition assembly. The PWRoll layers were installed symmetrically flush with both faces of the wall and sealed with FirePro® AIS. All pipes were installed in U/C configuration.

Test report 547028/R Iss1									
Plastic Pipes Through 100mm thick Flexible wall in Accordance With EN 1366-3:2021									
REF	Service Type	Service Size (mm)	Wall Thickness (mm)	Pipe wrap layers	Aperture (mm)	Integrity (minutes)			Insulation (minutes)
						Cotton Pad	Sustained Flaming	Gap Gauge	
A	HDPE	40	2.4	1	51	170	170	170	170
B	HDPE	40	3.7	1	51	170	170	170	170
C	PP	40	1.8	1	51	170	170	170	170
D	PP	40	5.5	1	51	170	170	170	164
E	PVC	40	1.9	1	51	170	170	170	164
F	PVC	40	3	1	51	170	170	170	170
G	PVC	110	4.2	3	130	170	170	170	170
H	PVC	110	6.6	3	130	170	170	170	165
I	HDPE	110	2.7	3	130	170	170	170	170
J	HDPE	110	10	3	130	170	170	170	166
K	PP	110	2.7	3	130	170	170	170	157
L	PP	110	10	3	130	170	170	170	153
M	PVC	160	9.5	4	180	170	170	170	156
N	HDPE	160	4.9	4	180	170	170	170	170
O	HDPE	160	9.5	4	180	170	170	170	157
P	PP	160	4	4	180	170	170	170	160
Q	PP	160	9.1	4	180	170	170	170	152
R	PVC	160	6.2	4	180	170	170	170	130

Summary of report No.: 549198/R Iss2

A range of five FirePro® PWRoll pipe penetration seals, penetrating a 75 mm thick standard EN 1366-3: 2021 + A1: 2024 flexible partition assembly. The PWRoll layers were installed wrapped around the pipe flush with both faces of the wall and sealed with FirePro® AIS. 100 mm of wall insulation was cut back around each plastic pipe penetration in line with the requirements of the test standard for uninsulated walls. All pipes were installed in U/C configuration.

Test report 549198/R Iss 2									
Plastic Pipes Through 75mm thick Flexible wall In accordance with EN 1366-3:2021+A1:2024									
REF	Service Type	Service Size (mm)	Wall Thickness (mm)	Pipe wrap layers	Aperture (mm)	Integrity (minutes)			Insulation (minutes)
						Cotton Pad	Sustained Flaming	Gap Gauge	
C1	PVC	110	4.2	3	130	68	68	68	58
C2	PVC	160	6.2	4	180	68	68	68	60
C3	PVC	110	6.6	3	130	68	68	68	64
D	UPONOR UNI PIPE PLUS PP-RT/AL/PP-RT	110	10	3	130	68	68	68	68
K	UPONOR UNI PIPE PLUS PP-RT/AL/PP-RT	40	4	1	80	68	68	68	51

Summary of report No.: 549199/R Iss2

A range of five FirePro® PWRoll pipe penetration seals, penetrating a 100 mm thick standard EN 1366-3: 2021 + A1: 2024 flexible partition assembly. The PWRoll layers were installed symmetrically flush with both faces of the wall and sealed with FirePro® AIS. 100 mm of wall insulation was cut back around each plastic pipe penetration in line with the requirements of the test standard for uninsulated walls, except for specimen K. All pipes were installed in U/C configuration.

Test report 549160/R Iss2									
Plastic Pipes Through 100mm thick Flexible wall in accordance with EN 1366-3:2021+A1:2024									
REF	Service Type	Service Size (mm)	Wall Thickness (mm)	Pipe wrap layers	Aperture (mm)	Integrity (minutes)			Insulation (minutes)
						Cotton Pad	Sustained Flaming	Gap Gauge	
C1	PVC	110	4.2	3	130	136	136	136	131
C2	PVC	160	6.2	4	180	136	136	136	132
C3	PVC	110	6.6	3	130	136	136	136	129
D	UPONOR UNI PIPE PLUS PP-RT/AL/PP-RT	110	10	3	130	136	136	136	80
K	UPONOR UNI PIPE PLUS PP-RT/AL/PP-RT	40	4	1	51	136	136	136	130

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2023.

4.2 Classification

The element, ROCKWOOL FirePro® PWRoll is classified according to the following combinations of performance parameters and classes as appropriate.

R	**E**	**I**	**W**		***t***	***t***	**-**	**M**	**S**	**-**	**C**	**IncSlow**	**sn**	**ef**	**r**

4.3 Supporting substrate types

Substrate type	Minimum specification
Single skin flexible walls	The flexible wall construction must be classified in accordance with EN 13501-2 for the required fire resistance period and must have a minimum thickness of 75 mm. The walls may be insulated or uninsulated. The flexible wall construction comprises steel or timber studs lined on both faces with a minimum of 1 Layer ≥12,5 mm thick boards. For timber stud walls there must be a minimum distance of 100 mm from the seal to any stud. The cavity between stud and seal must be closed with an insulation of Class A1 (in accordance with EN 13501-1) for at least 100 mm distance.
Double skin flexible walls	The flexible wall construction must be classified in accordance with EN 13501-2 for the required fire resistance period and must have a minimum thickness of 100 mm. The walls may be insulated or uninsulated. The flexible wall construction comprise steel or timber studs lined on both faces with a minimum of 2 Layers of ≥12,5 mm thick boards. For timber stud walls there must be a minimum distance of 100 mm from the seal to any stud. The cavity between stud and seal must be closed with an insulation of Class A1 (in accordance with EN 13501-1) for at least 100 mm distance.
Rigid walls	The rigid wall must have a minimum thickness of 100 mm and comprise aerated concrete, concrete or masonry, with a minimum density of 600 kg/m^3.
Rigid floors	The rigid wall must have a minimum thickness of 150 mm and comprise aerated concrete, concrete or masonry, with a minimum density of 600 kg/m^3.

4.4 Summary of assumptions

The ROCKWOOL FirePro® PWRoll shall be installed in line with the details given in the latest revision of Classification report

Service support

Floor
Maximum distance from the top of the seal to the first service support shall be in line with the below distances unless specified otherwise within a specific detail:

Plastic pipes: 500 mm

Wall
Maximum distance from the face of the wall to the first service support shall be in line with the below distances unless specified otherwise within a specific detail: Services shall be supported either side of the wall

Combustible pipes: 450 mm

Pipe end configuration for pipe penetrations

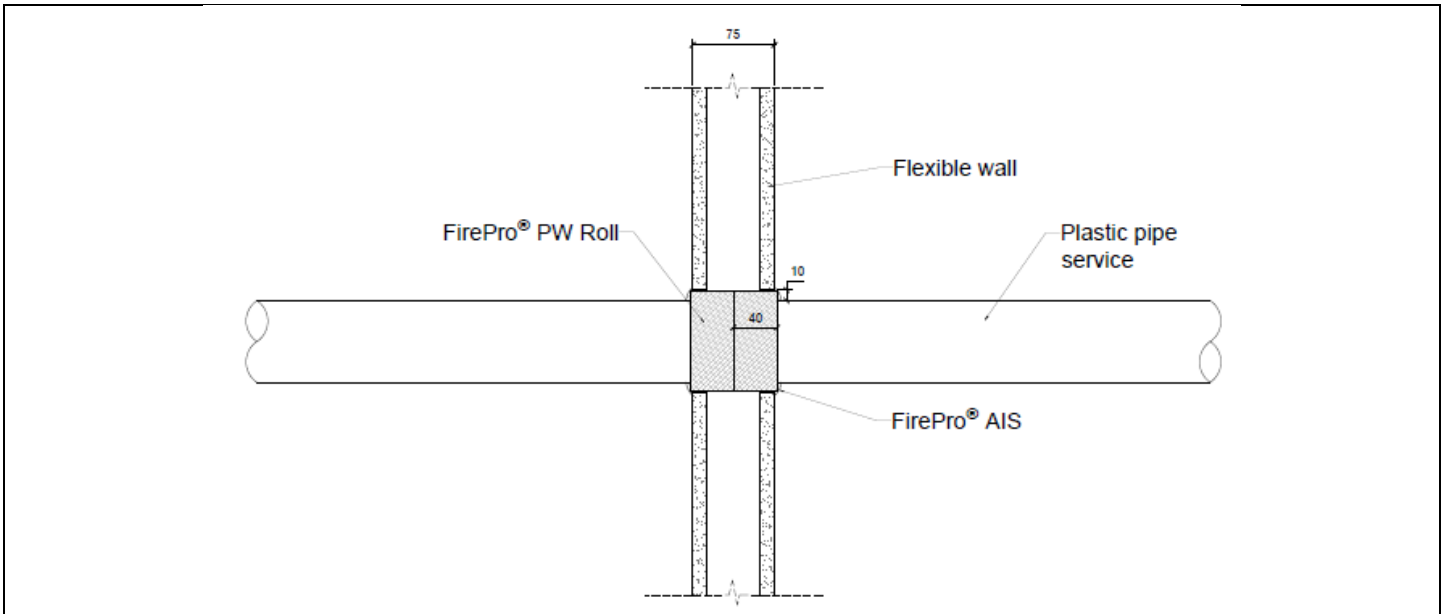
Combustible pipes: U/C

4.5 Classified performances

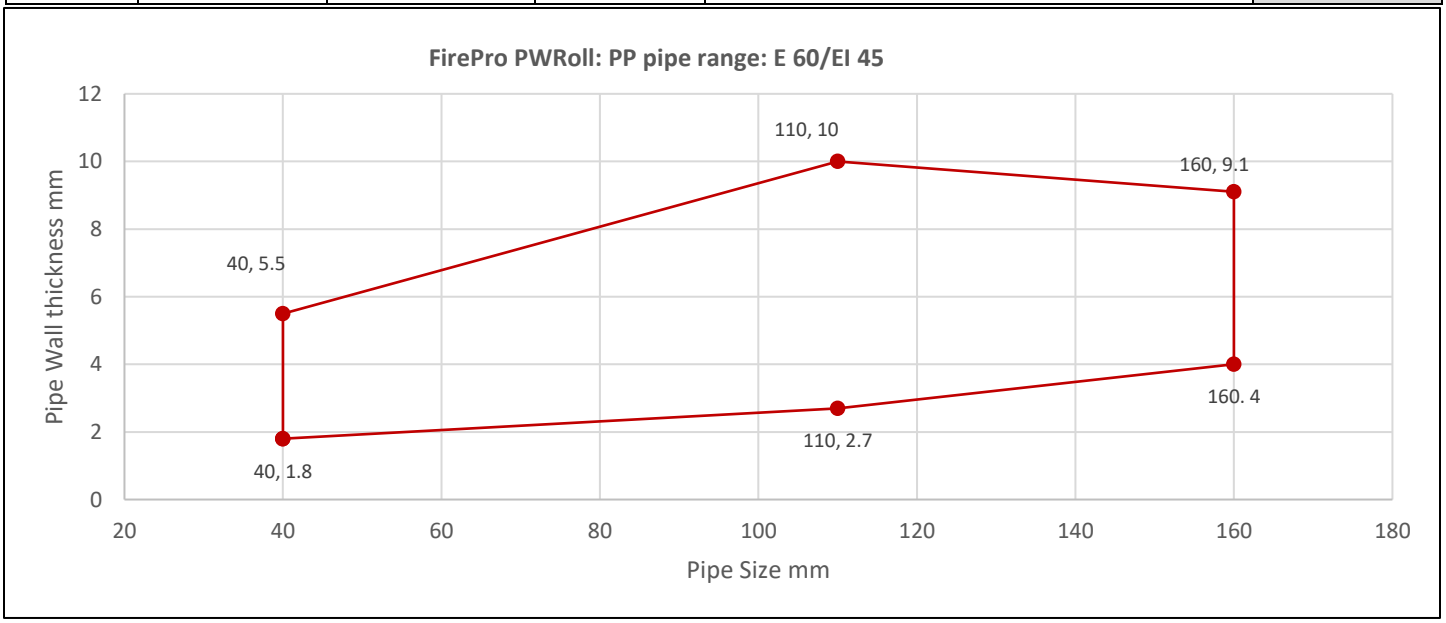
4.5.1 FirePro® PWRoll seals within min 75mm thick, single skin Flexible walls

Plastic pipes

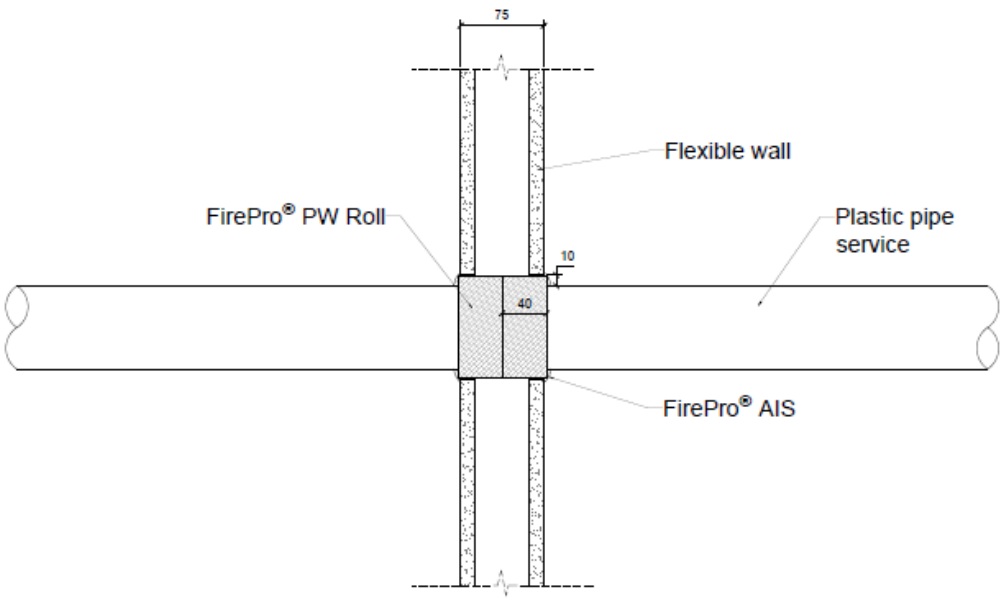
PP Pipes



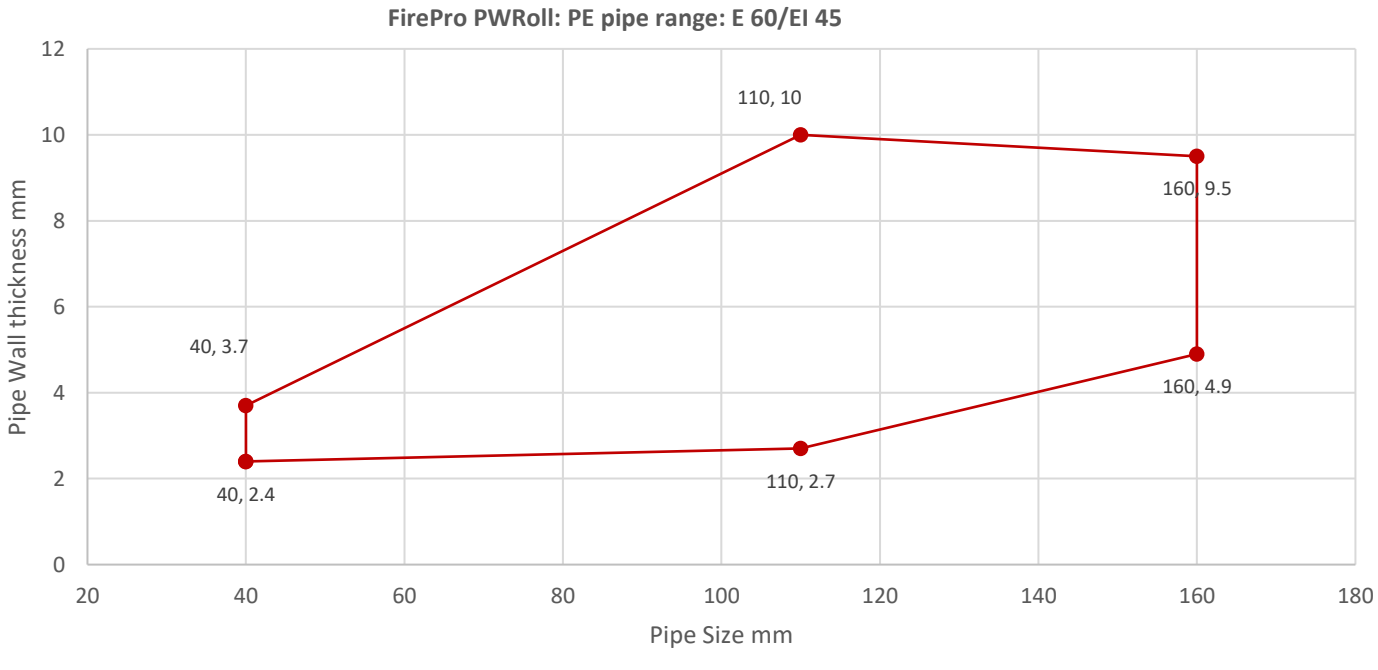
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**E 60/EI 45 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



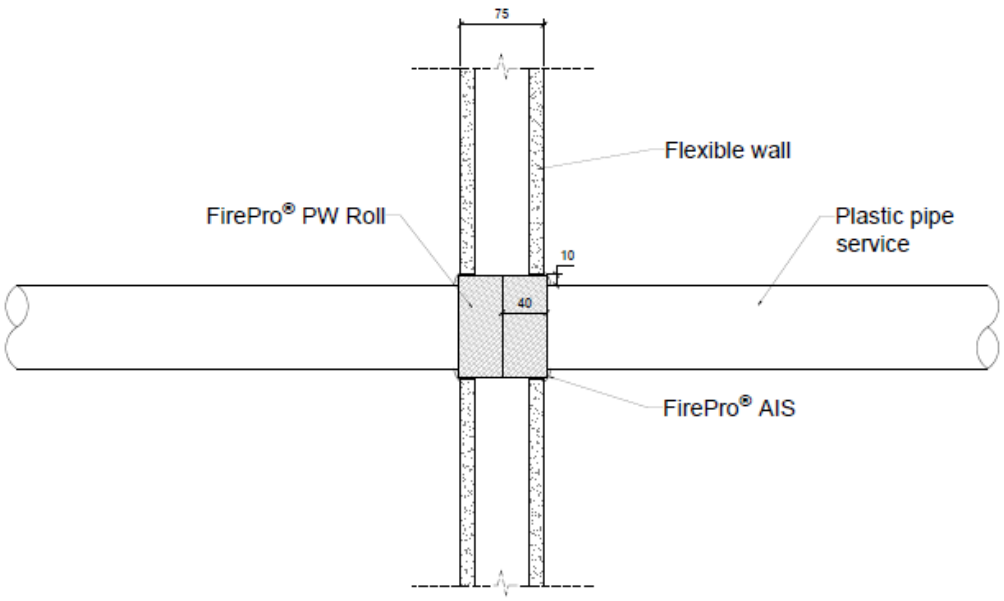
PE Pipes



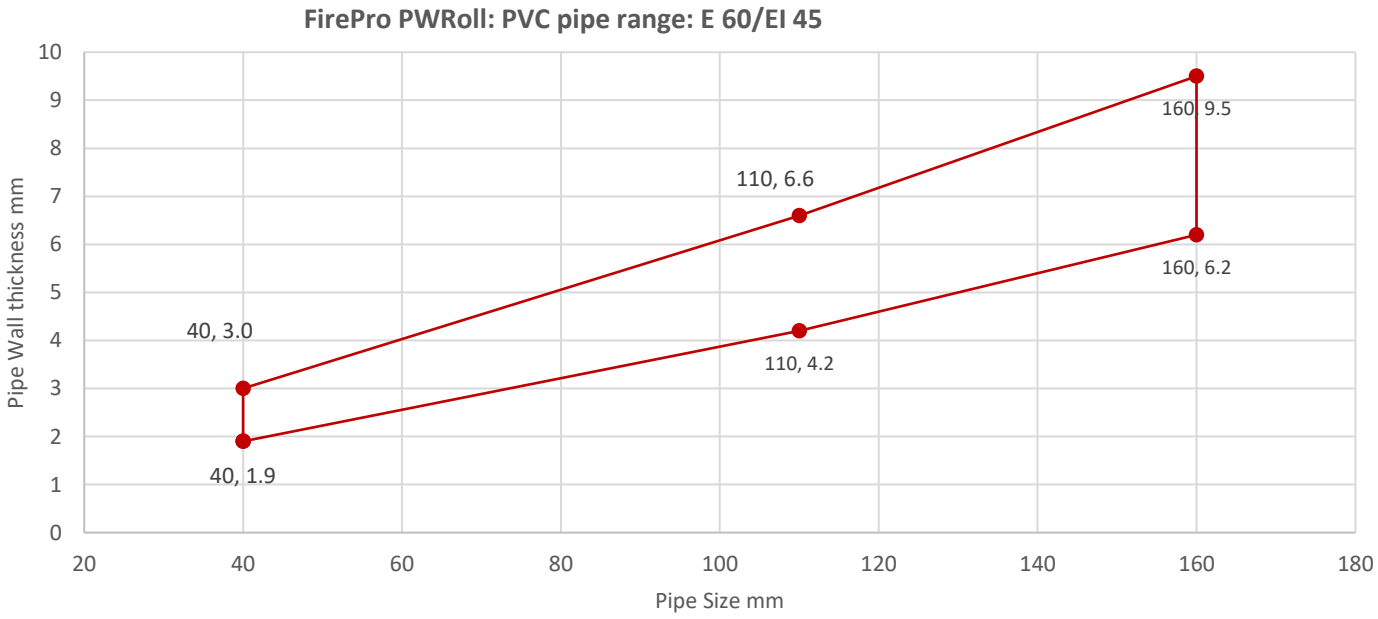
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**E 60/EI 45 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



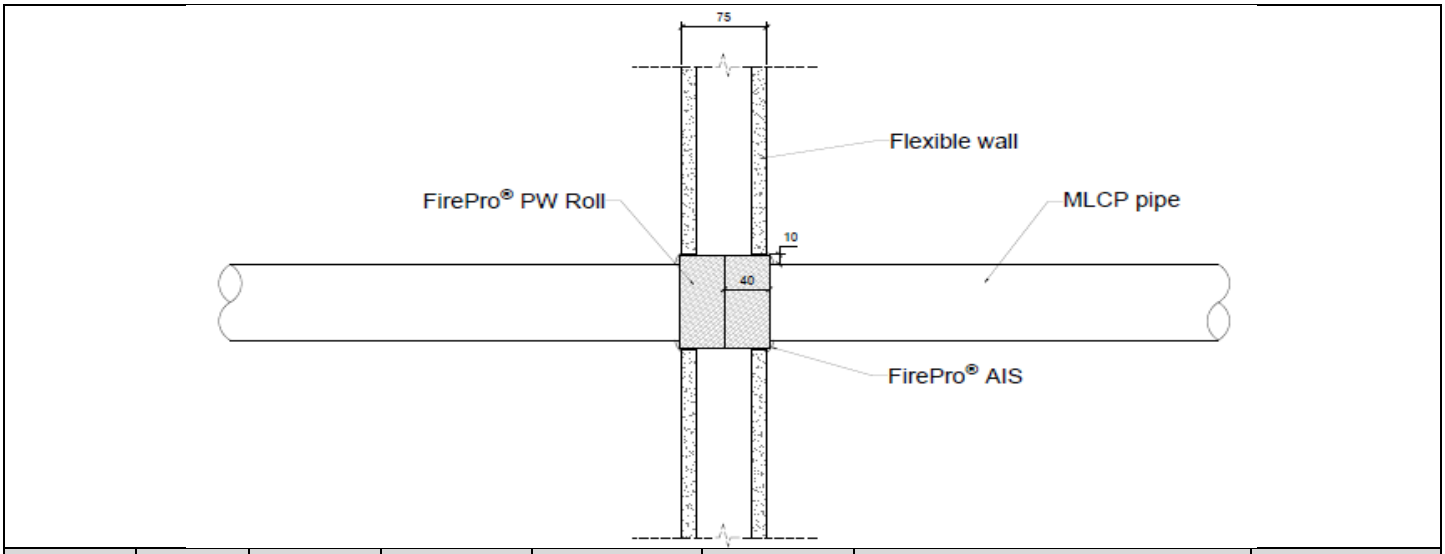
PVC Pipes



Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**E 60/EI 45 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			

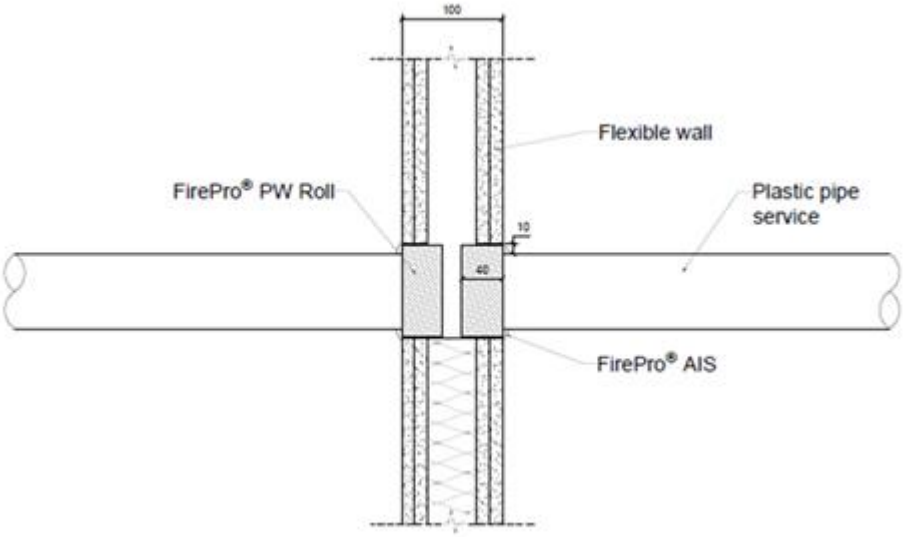


MLCP Pipes

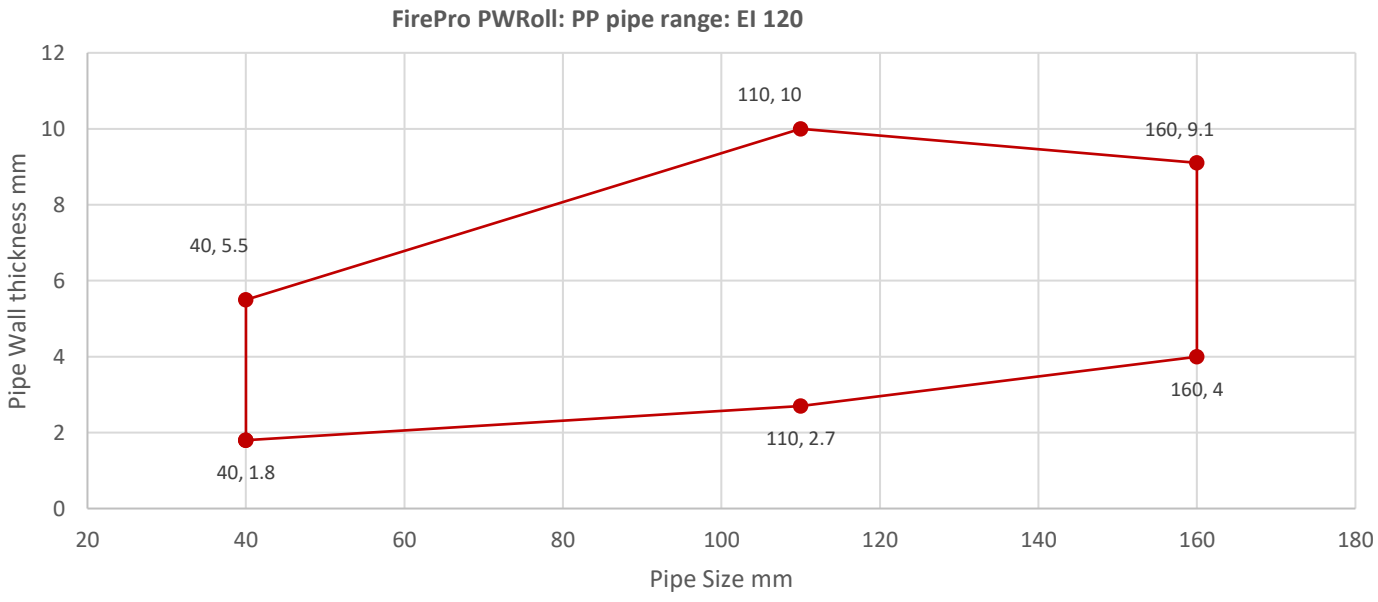


Pipe material	Pipe size (mm)	Pipe wall thickness (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
UPONOR UNI PIPE PLUS PP-RT / AL / PP-RT	110	10	3	6	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**EI 60 U/C**
	40	4	1	2	≤5.5		**E60/EI 45 U/C**

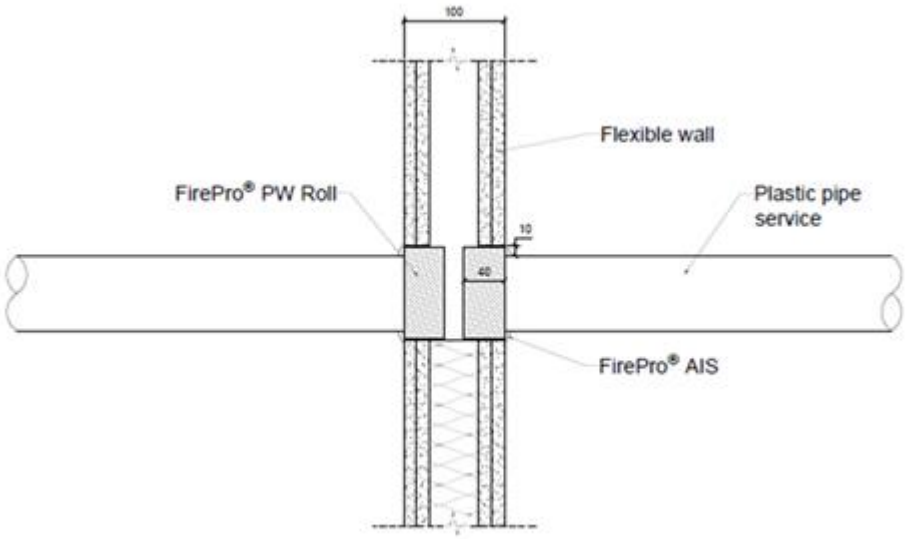
4.5.2 FirePro® PWRoll seals within min 100 mm thick, double skin flexible walls
Plastic pipes
PP Pipes



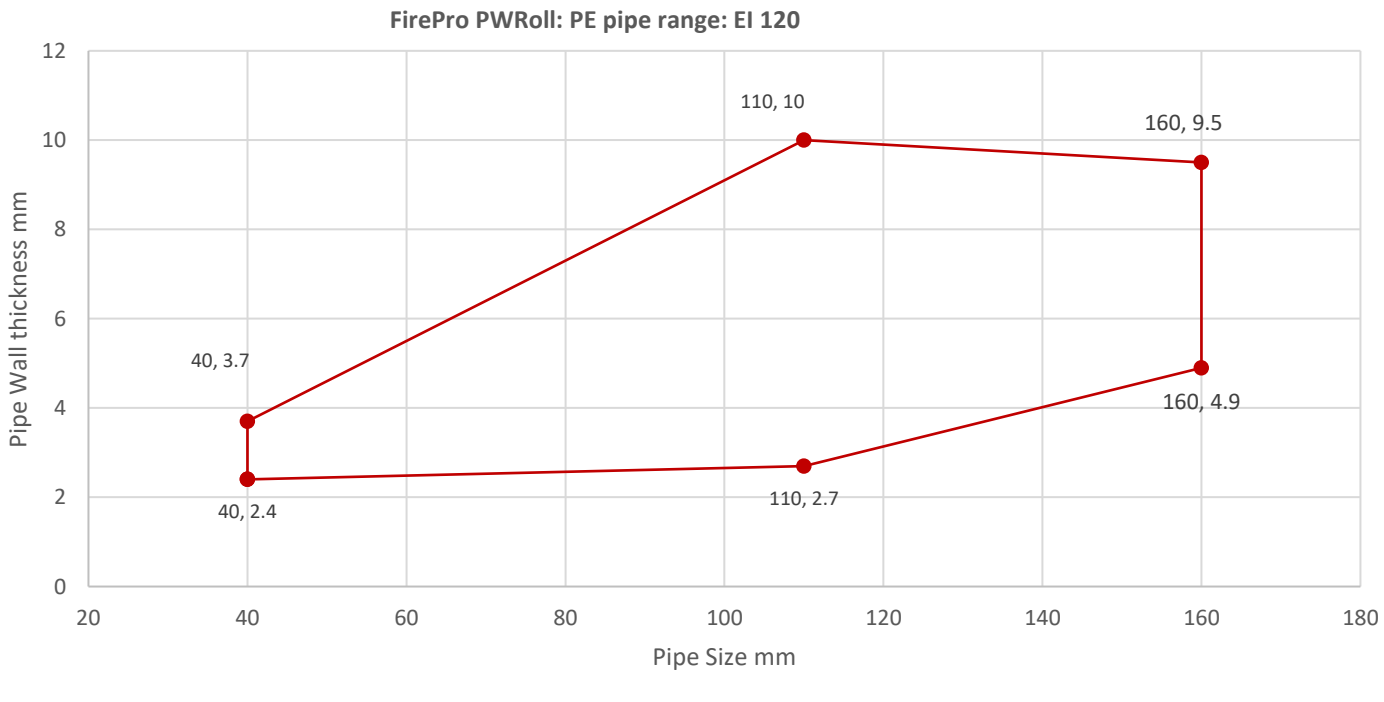
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the plasterboard and sealed over with nominal bead of FirePro® AIS Sealant over both faces as a smoke seal.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



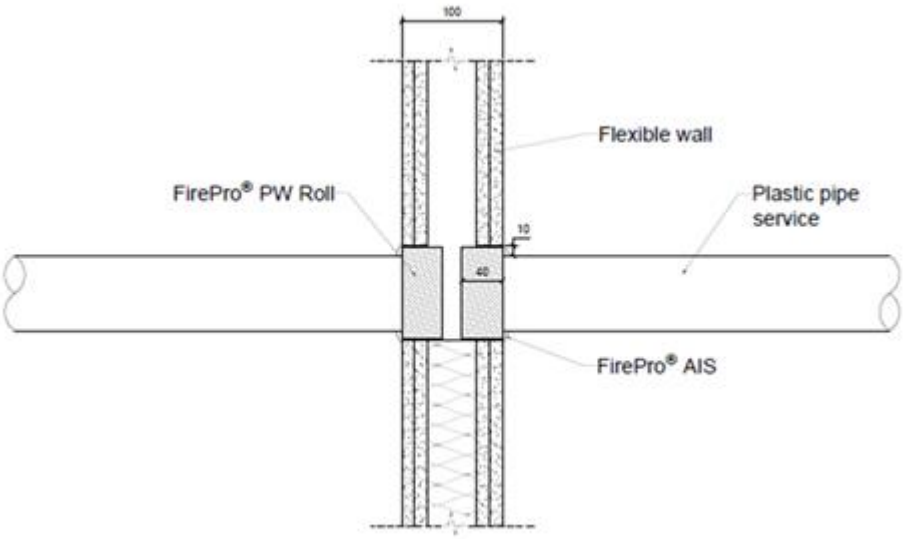
PE Pipes



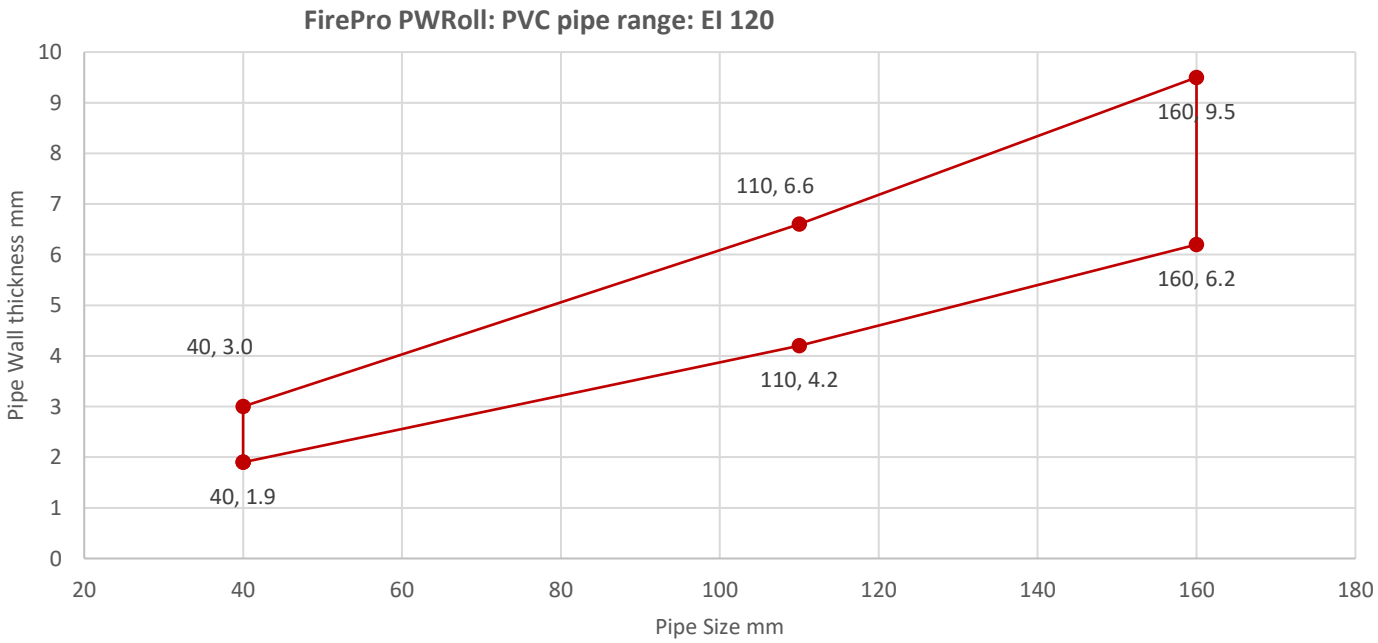
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the plasterboard and sealed over with nominal bead of FirePro® AIS Sealant over both faces as a smoke seal.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



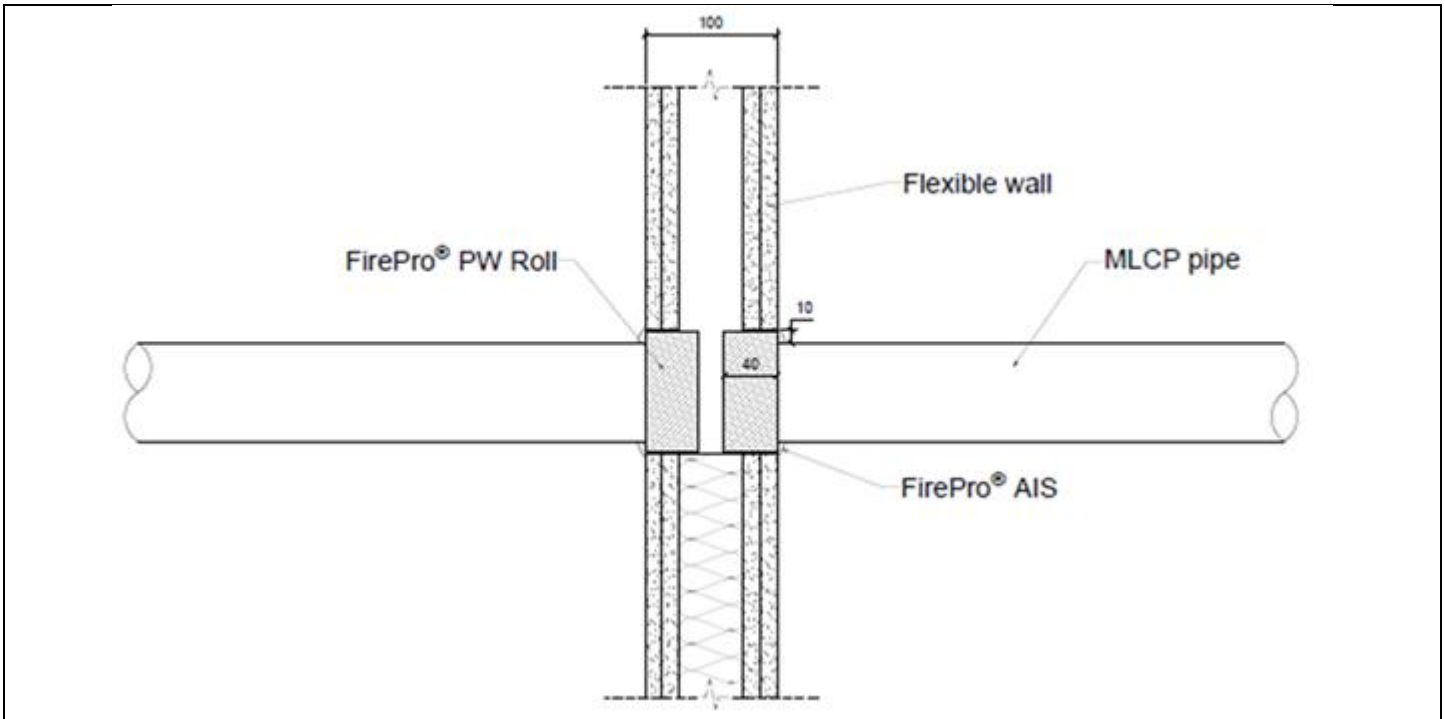
PVC Pipes



Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the plasterboard and sealed over with nominal bead of FirePro® AIS Sealant over both faces as a smoke seal.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			

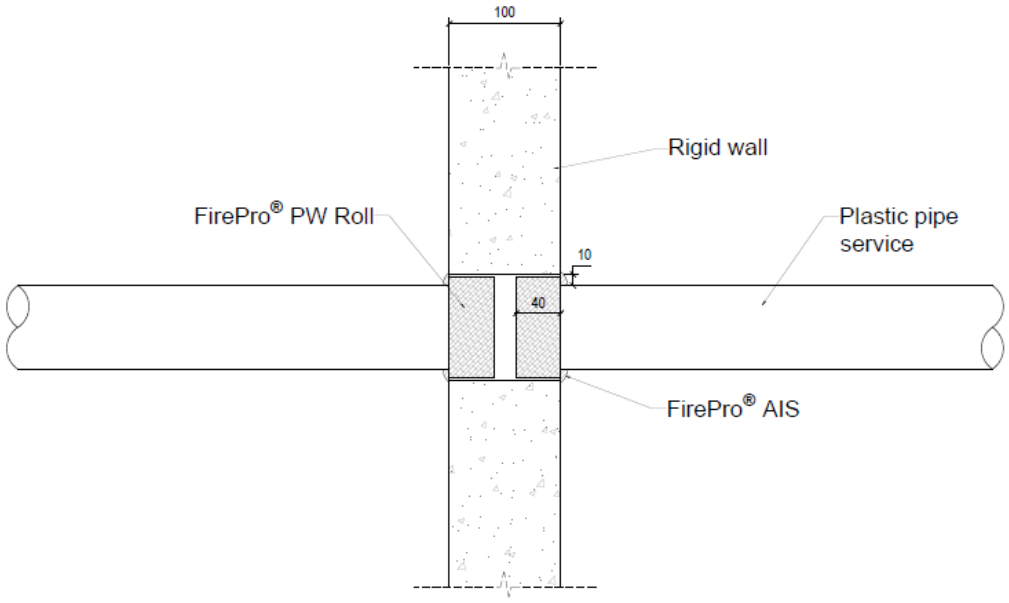


MLCP Pipes

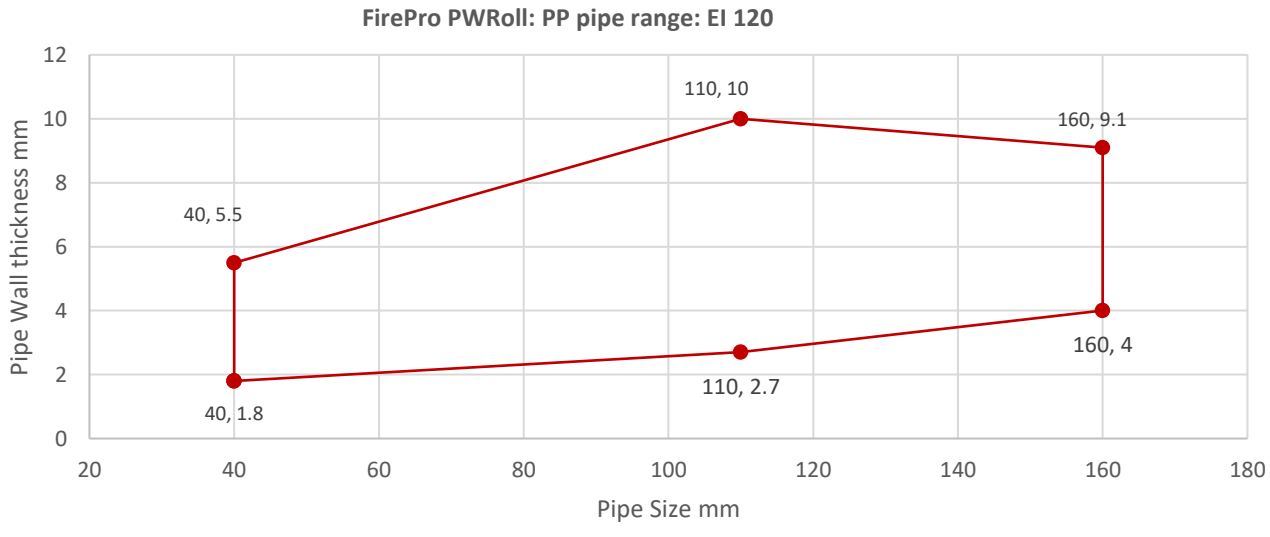


Pipe material	Pipe size (mm)	Pipe wall thickness (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
UPONOR UNI PIPE PLUS PP-RT / AL / PP-RT	110	10	3	6	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**E 120/EI 60 U/C**
	40	4	1	2	≤5.5		**EI 120 U/C**

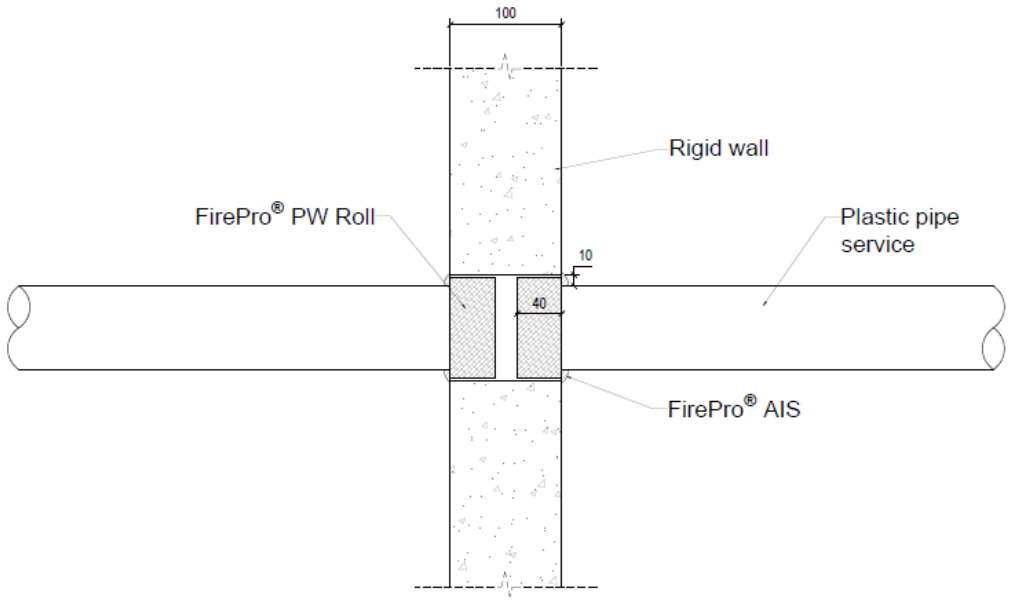
4.5.3 FirePro® PWRoll seals within min 100 mm Rigid wall
Plastic pipes
PP Pipes



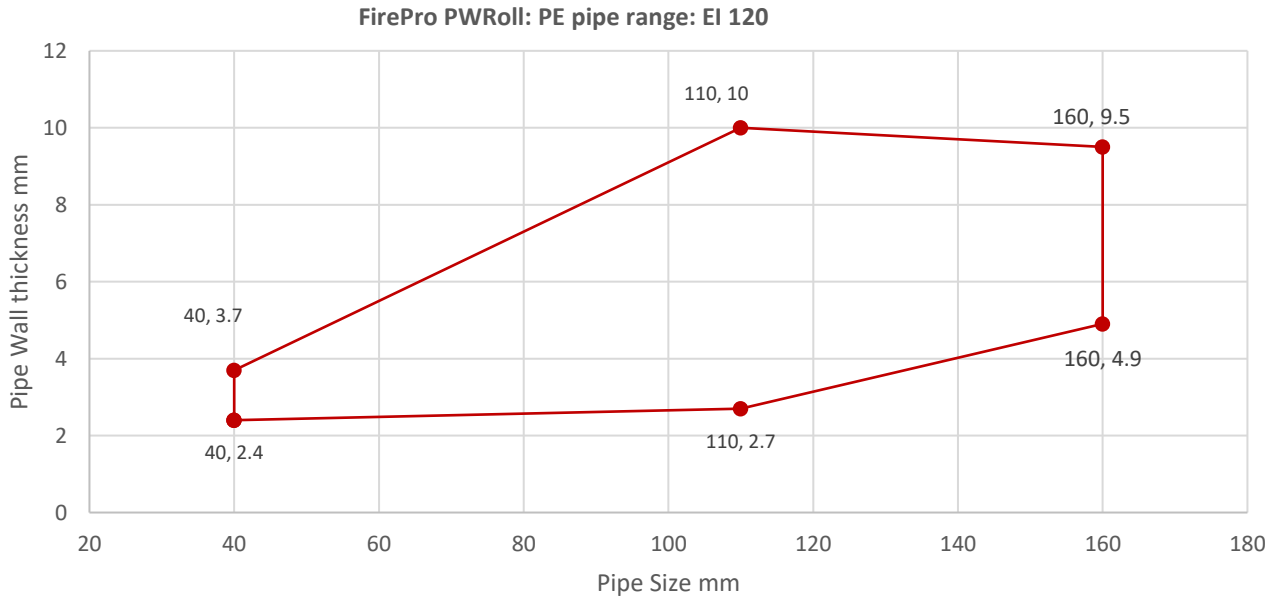
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



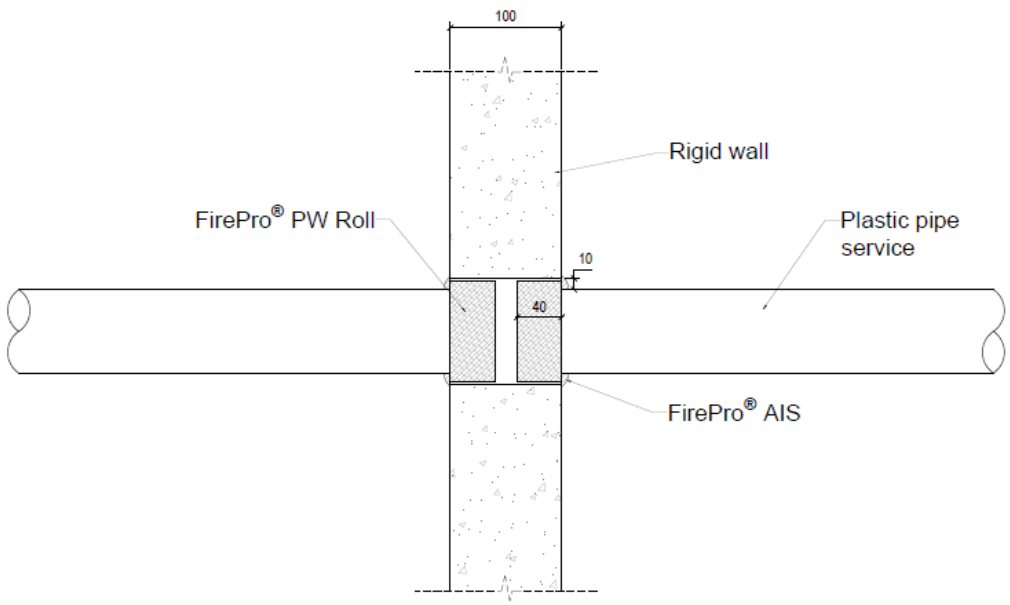
PE Pipes



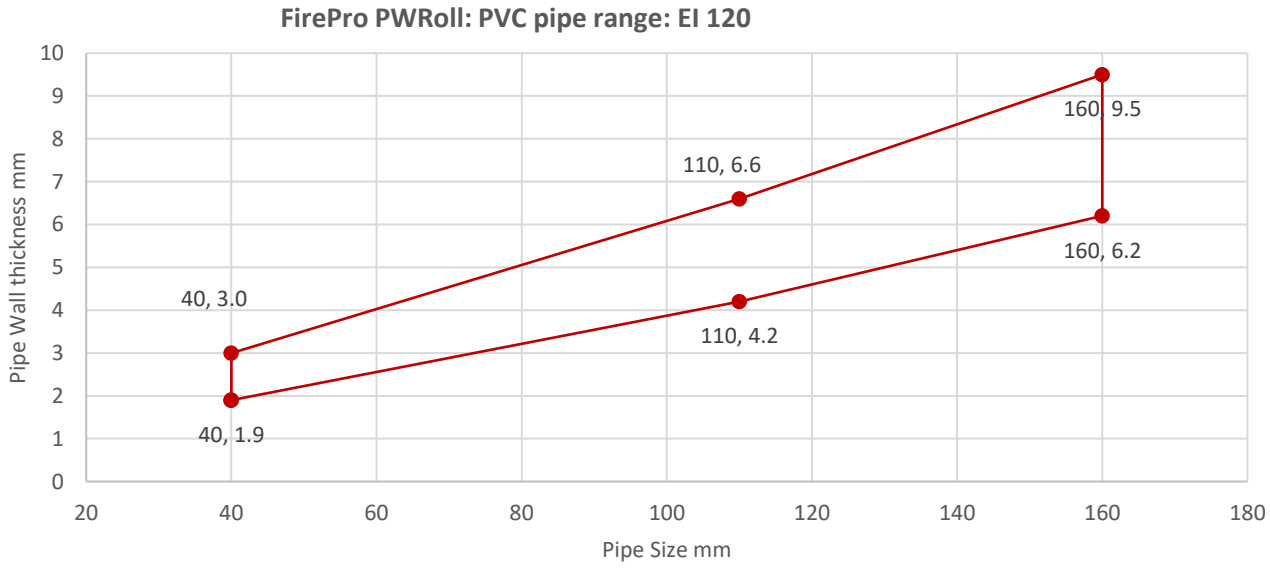
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



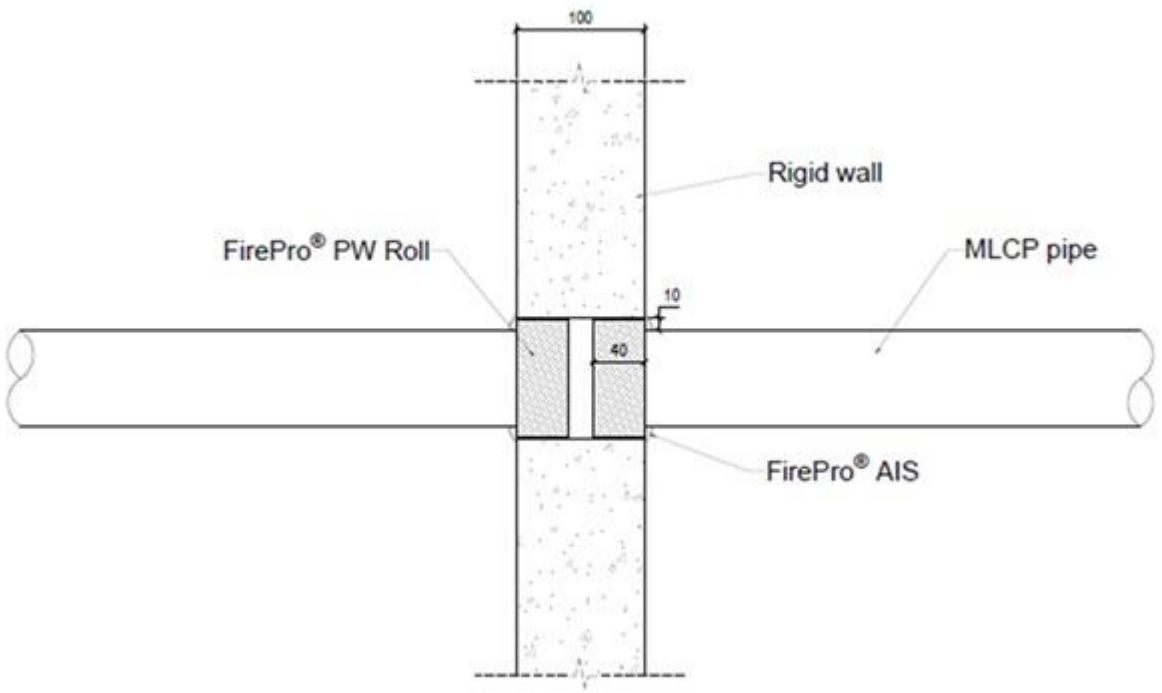
PVC Pipes



Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**EI 120 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			

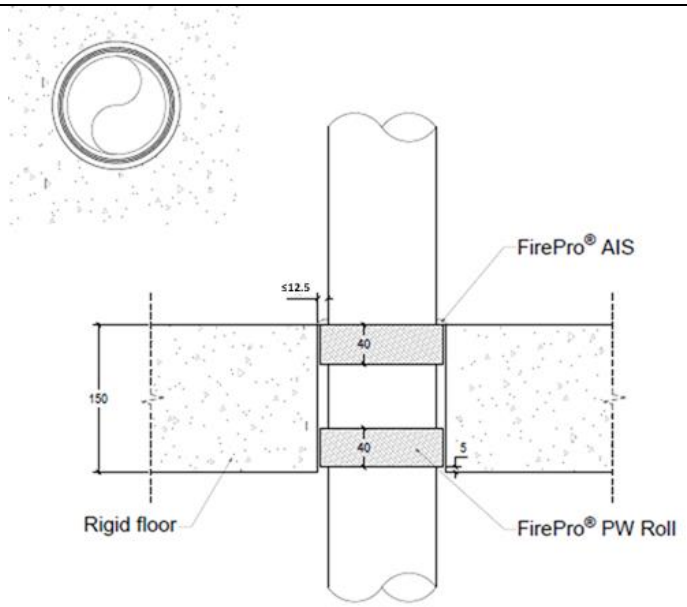


MLCP Pipes

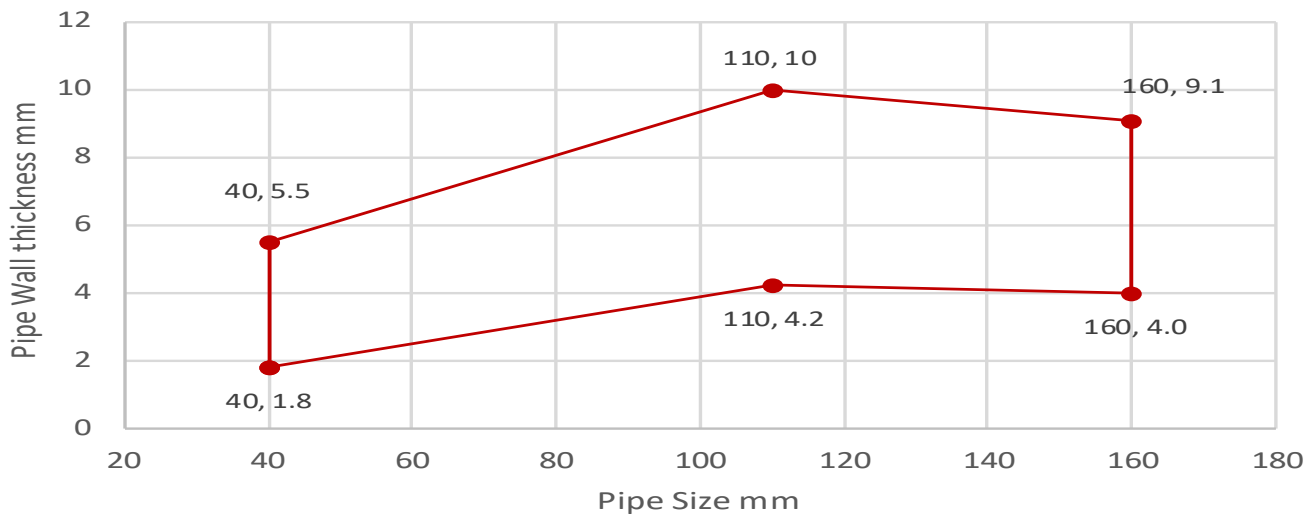


Pipe material	Pipe size (mm)	Pipe wall thickness (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
UPONOR UNI PIPE PLUS PP-RT / AL / PP-RT	110	10	3	6	≤10	40 mm wide x 2 mm thick layers of PWRoll wrapped around the pipe flush with both faces of the wall. A nominal bead of FirePro® AIS Sealant applied to seal any gaps.	**E 120/EI 60 U/C**
	40	4	1	2	≤5.5		**EI 120 U/C**

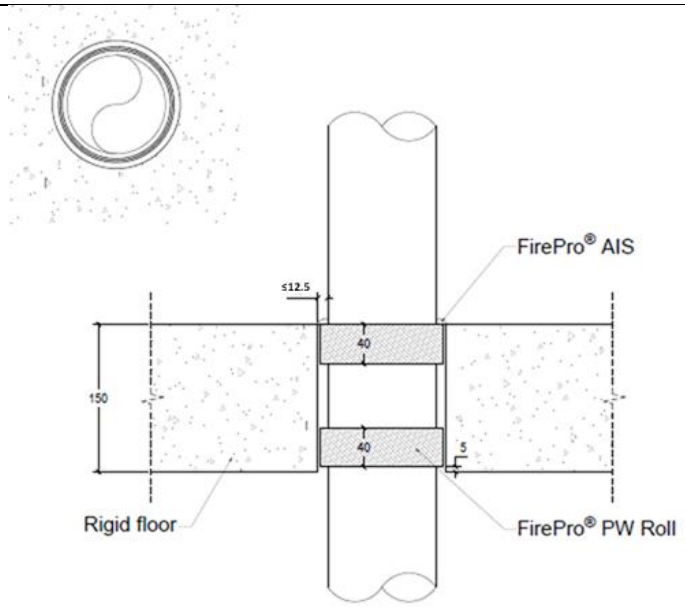
4.5.4 FirePro® PWRoll seals within min 150 mm thick rigid floor
PP Pipes



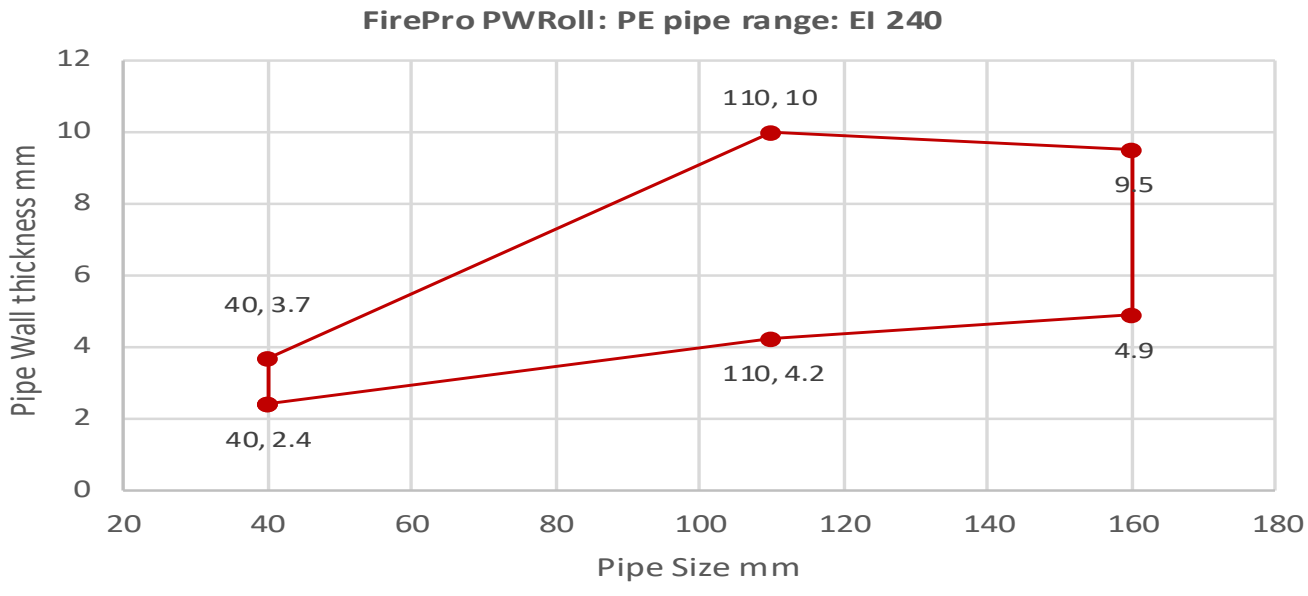
Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	Bottom wrap installed from unexposed face of slab pushed down 5mm from the exposed face of the slab. Top wrap set 5mm from the unexposed face. FirePro AIS smoke seal applied only over the top of the wrap in the aperture	**EI 240 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



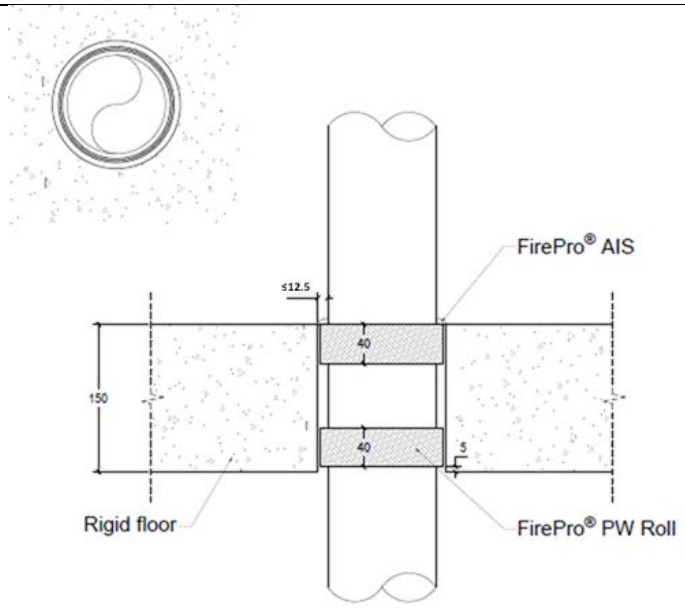
PE Pipes



Pipe Size (mm)	Pipe Wrap layers (2mm)	Intumescent thickness (mm)	Annular gap (mm)	Seal description	Classification
≤40	1	2	≤10	Bottom wrap installed from unexposed face of slab pushed down 5mm from the exposed face of the slab. Top wrap set 5mm from the unexposed face. FirePro AIS smoke seal applied only over the top of the wrap in the aperture	**EI 240 U/C**
41-79	2	4			
80-120	3	6			
121-160	4	8			



PVC Pipes



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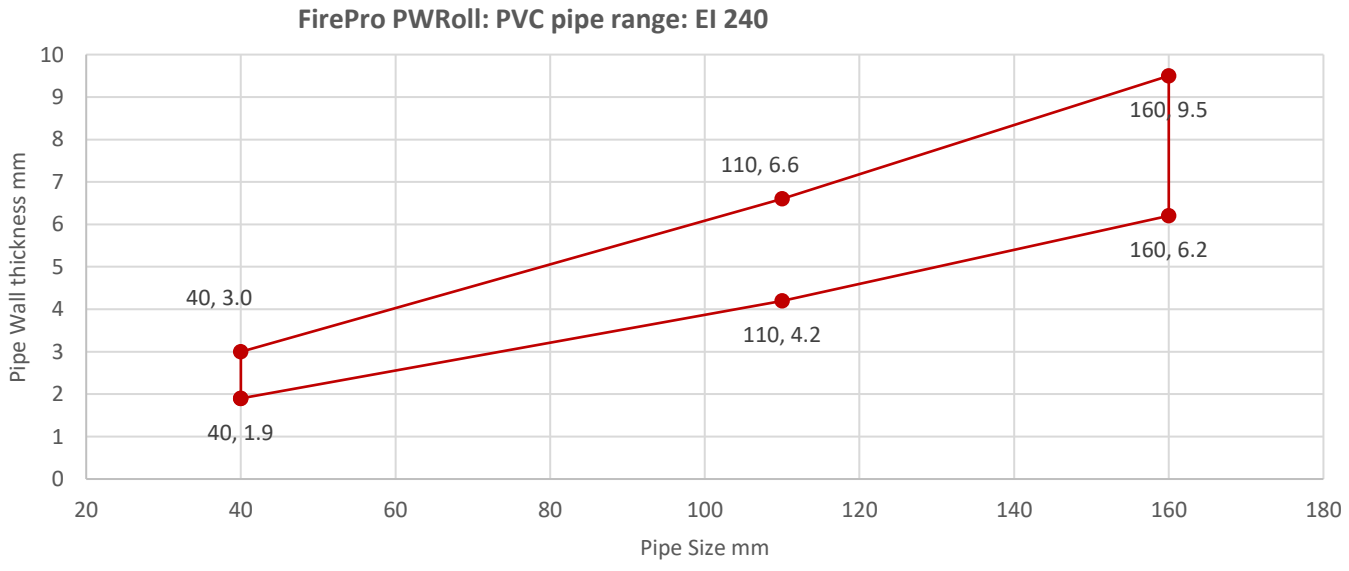
41-79	2	4			
80-120	3	6			
121-160	4	8			



4.6 Field of Application – Penetrations

See EN 1366-3: 2021, Clause 13 (as appropriate) for the field of direct application rules that may be applied.

5. Limitations

This classification report does not represent type approval or certification of the product.

6. Signatories

Report by:

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Built Environment

Reviewed by:

Chris Sweeney
Senior Project Engineer
Built Environment

For and on behalf of UL International (UK) Ltd.