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## European Technical Assessment

**ETA-20/1209**  
**of 2020/12/17**

### General Part

<b>Technical Assessment Body Issuing the European Technical Assessment:</b>	<b>Element Materials Technology Rotterdam B.V.</b>
<b>Trade Name of the Construction Product:</b>	Pyroplex 200 Series Wrap & Pyroplex 400 Series Wrap
<b>Product Family to Which the Construction Product Belongs:</b>	EC PAC 35 – Fire Stopping, Fire Sealing & Fire Protective Products. Fire Retardant Products
<b>Manufacturer:</b>	Pyroplex Limited The Furlong Droitwich Worcestershire WR9 9BG
<b>Manufacturing Plant(s):</b>	E/043
<b>This European Technical Assessment Contains:</b>	21 pages including 1 Annex, which form an integral part of this assessment.
<b>This European Technical Assessment is Issued in Accordance with Regulation (EU) No 305/2011, On the Basis Of:</b>	EAD 350454-00-1104 -Fire Stopping and Fire Sealing Products-Penetration Seals: Issue September 2017
<b>This Version Replaces:</b>	ETA 12/0351, issued on 2018/08/11

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# 1 Technical Description of the Product

(Detailed information and data are given in Annexes)

- 1) 200 & 400 Series Wraps are used around combustible pipes to form a penetration seal to reinstate the fire resistance performance of wall and floor constructions, where they have been provided with apertures for the penetration of combustible pipes services.
- 2) 200 & 400 Series Wraps include an intumescent component incorporated in a PE sheath to close any gaps or joints and provide closure of combustible pipes when heated and to prevent the passage of fire.
- 3) 200 & 400 Series Wraps are of identical materials, width and length but have a different intumescent component thickness to achieve different performances.
- 4) 200 & 400 Series Wraps are supplied in assembled form. The device is wrapped around the pipe and inserted into the aperture in wall or floor.
- 5) The applicant has submitted a written declaration that the product and/or constituents of the product contains no substances which have been classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No. 1272/2008 and listed in the 'indicative list on dangerous substances' of the EGDS – taking into account the installation conditions of the construction product and the release scenarios resulting from there.

In addition to the specific clauses relating to dangerous substances contained in this European Technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

The use category of 200 & 400 Series Wraps in relation to BWR 3 (Hygiene, health and environment) is IA3, S/W3

Internal use- ETAG 026-2 (used as European Assessment Document EAD) Type Z<sub>2</sub>.

## 2. Specification Of The Intended Use In Accordance With The Relevant EAD

### 2.1 Intended Use

The intended use of system 200 Series Wrap and system 400 Series Wrap is to reinstate the fire resistance performance of flexible and rigid wall constructions and rigid floor constructions where they are penetrated by various combustible pipe services.

- 1) The specific elements of construction that the system 200 Series Wrap and system 400 Series Wrap may be used to provide a penetration seal in, are as follows:

Rigid walls: The wall must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

Rigid floors: The floor must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m<sup>3</sup>.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

- 2) The system 200 Series Wrap and system 400 Series Wrap may be used to provide a penetration seal with specific combustible pipes, single only (for details see Annex C & D).
- 3) Apertures in the separating element shall be sized as detailed in the installation instructions (4.2). Apertures for the penetration of pipes shall be separated by a minimum 200 mm.
- 4) Pipes shall be supported at maximum 320 mm away from both faces of the wall constructions and from the upper face of floor constructions.

The provisions made in this European Technical Approval are based on an assumed working life of the 200 & 400 Series Wraps of 10 years, provided that the conditions laid down in sections 4.2/5.1/5.2 for the packaging/transport/ storage/installation/use/repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

#### 2.1.1 Use Category

Type Z<sub>2</sub>: Intended for use at internal conditions with humidity classes other than Z<sub>1</sub><sup>1</sup>, excluding temperatures below 0°C.

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<sup>1</sup> i.e. humidity class other than class 5 in accordance with EN ISO 13788

### 3. Performance Of The Product And References To The Methods Used For Its Assessment

Product Type: Fire Wrap		Intended use: Penetration Seal
Basic requirement for construction work	Basic Requirement	Performance
<b>BWR 1 Mechanical resistance and stability</b>		
	None	Not relevant
<b>BWR 2 Safety in case of fire</b>		
EN 13501-1	Reaction to fire	Class F
EN 13501-2	Resistance to fire	Annex A & B
<b>BWR 3 Hygiene, Health and the Environment</b>		
EN 1026:2000	Air permeability	No performance determined
ETAG 026-3 Annex C	Water permeability	No performance determined
Declaration by manufacturer	Release of dangerous substances	Use category IA3, S/W3 Declaration of manufacturer
<b>BWR 4 Safety in use</b>		
EOTA TR 001:2003	Mechanical resistance and stability	No performance determined
EOTA TR 001:2003	Resistance to impact/movement	No performance determined
EOTA TR 001:2003	Adhesion	No performance determined
<b>BWR 5 Protection against noise</b>		
EN 10140-2/ EN ISO 717-1	Airborne sound insulation	No performance determined
<b>BWR 6 Energy, Economy and Heat Retention</b>		
EN 12664, EN 12667 or EN 12939	Thermal properties	No performance determined
EN ISO 12572 EN12086	Water vapour permeability	No performance determined
<b>General aspects relating to fitness for use</b>		
EOTA TR 024:2009	Durability and serviceability	Z <sub>2</sub>
<b>BWR 7 Sustainable use of natural resources</b>		
		No performance determined

## 4 Assessment And Verification Of Constancy Of Performance (Hereinafter AVCP) System Applied, With References To Its Legal Base)

According to the decision 1999/454/EC of the European Commission the system of assessment and verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) given in the following table apply:

Products	Intended uses	Level or Class	System
Fire stopping and fire sealing products	For fire compartmentation and / or fire protection or fire performance	Any	System 1

## 5 Technical Details Necessary For The Implementation Of The AVCP System, As Provided For In The Applicable EAD.

### Tasks for the Manufacturer

#### Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this European technical assessment.

The manufacturer may only use constituent materials stated in the technical documentation of this European technical assessment.

The factory production control shall be in accordance with the Control Plan of 6/7/12 relating to the European Technical Assessment ETA– 20/1209 “Control Plan” is laid down in the context of the factory production control system operated by the manufacturer and deposited at Element Materials Technology Rotterdam B.V.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

#### Other tasks of manufacturer

##### Additional information

The manufacturer shall provide a technical data sheet and an installation instruction with the following minimum information:

- (a) Technical data sheet:
  - Field of application:
    - Building elements for which the penetration seal is suitable, type and properties of the building elements like minimum thickness, density, and - in case of lightweight constructions – the construction requirements.

- Services for which the penetration seal is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. cable trays)
- Limits in size, minimum thickness etc. of the penetration seal

(b) Installation instruction:

- Steps to be followed
- Procedure in case of retrofitting.

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European technical assessment  
ETA 20/1209

**Tasks of approved bodies**

The approved body shall perform the

- initial type-testing of the product,
- initial inspection of factory and of factory production control,
- continuous surveillance, assessment and approval of factory production control,

In accordance with the provisions laid down in the "Control Plan" of 6/7/12 relating to the European Technical Assessment 20/1209

The approved body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report.

The approved certification body involved by the manufacturer shall issue an EC certificate of conformity of the product stating the conformity with the provisions of this European technical assessment.

In cases where the provisions of the European technical assessment and its "Control Plan" are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform the Element Materials Technology Rotterdam B.V. without delay.

Issued in Amsterdam, Netherlands on 2020/12/17

By

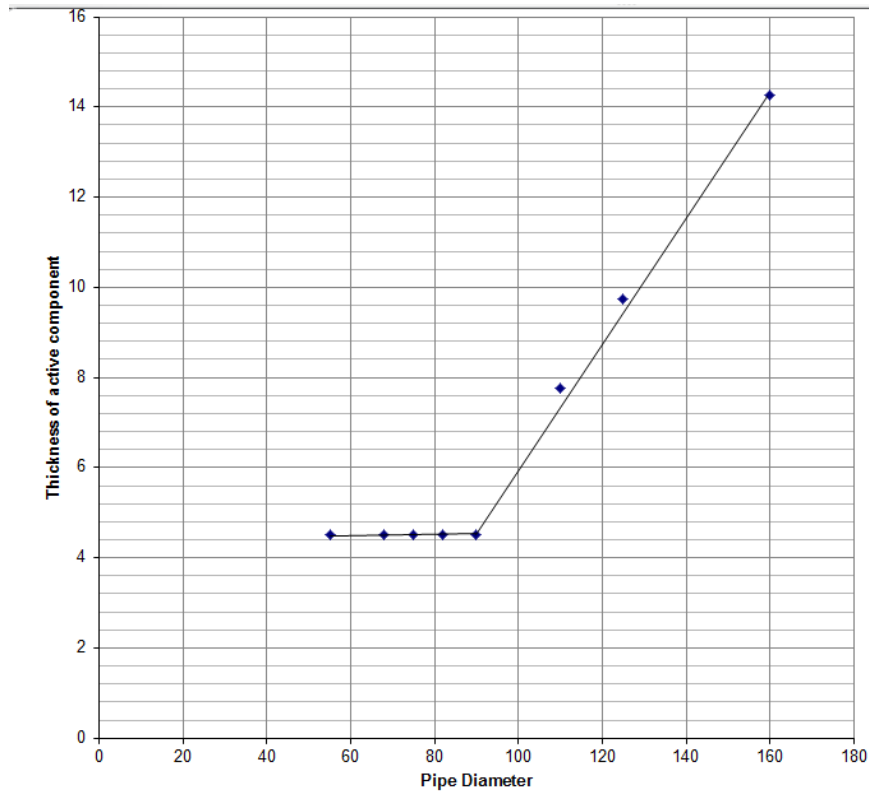
A handwritten signature in black ink, appearing to read "Paul Duggan", enclosed within a thin black rectangular border.

Paul Duggan  
Deputy TAB Manager



## Annex A

### Resistance to Fire Classification of 200 Series Wrap



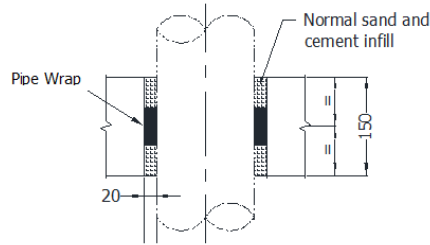
Product Code	Active Element Intumescent Insert	
	Width [mm]	Thickness [mm]
PPW55-2	60.0mm	4.75mm
PPW82-2	60.0mm	4.75mm
PPW110-2	60.0mm	7.50mm
PPW160-2	60.0mm	4.50mm + 9.50mm

**A.1 Rigid wall constructions according to 2.1.1 with wall thickness of minimum 150 mm**

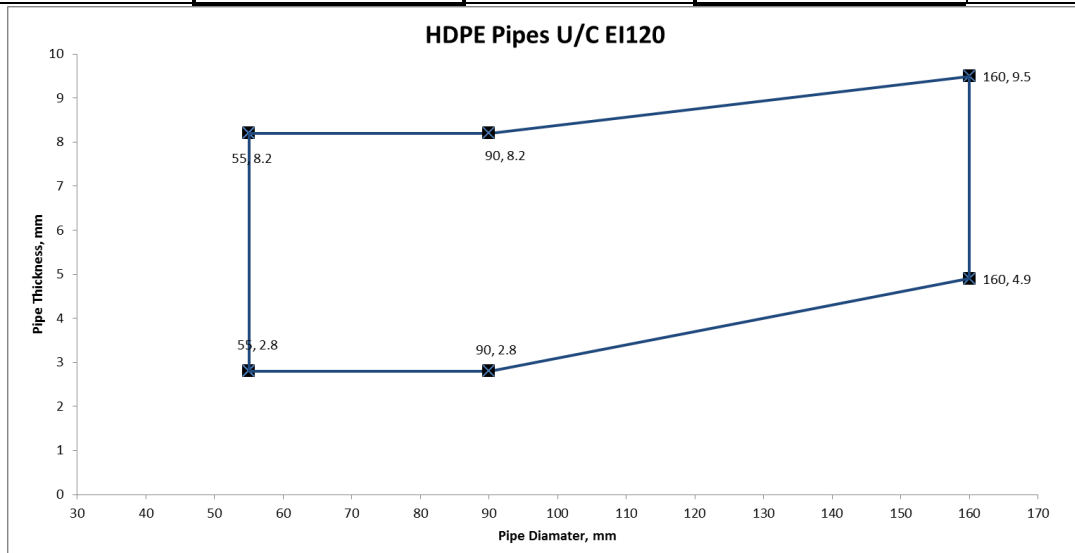
**A.1.1 Penetration seal with 200 Series Wrap installed to internally within the wall**

**Penetration Seal:** Combustible pipes fitted with a single Pyroplex 200 Series Wrap internally within the wall

Construction details:

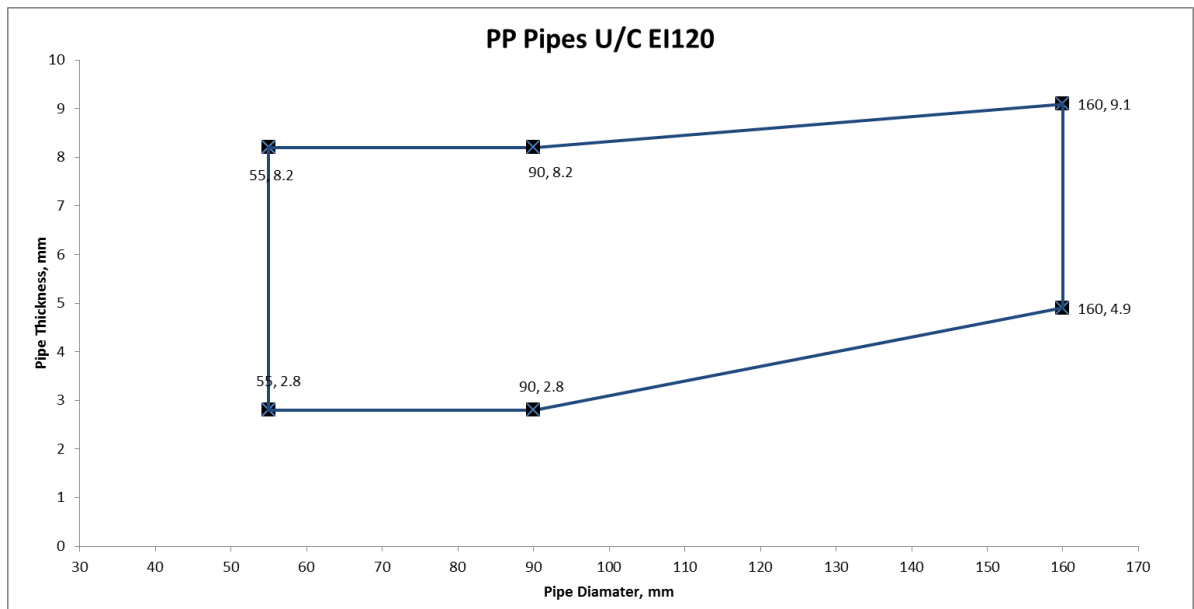


Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thic kn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
HDPE	90	2.8	PPW90-2	EI 120 U/C
	90	8.2		
	160	4.9	PPW160-2	
	160	9.5		



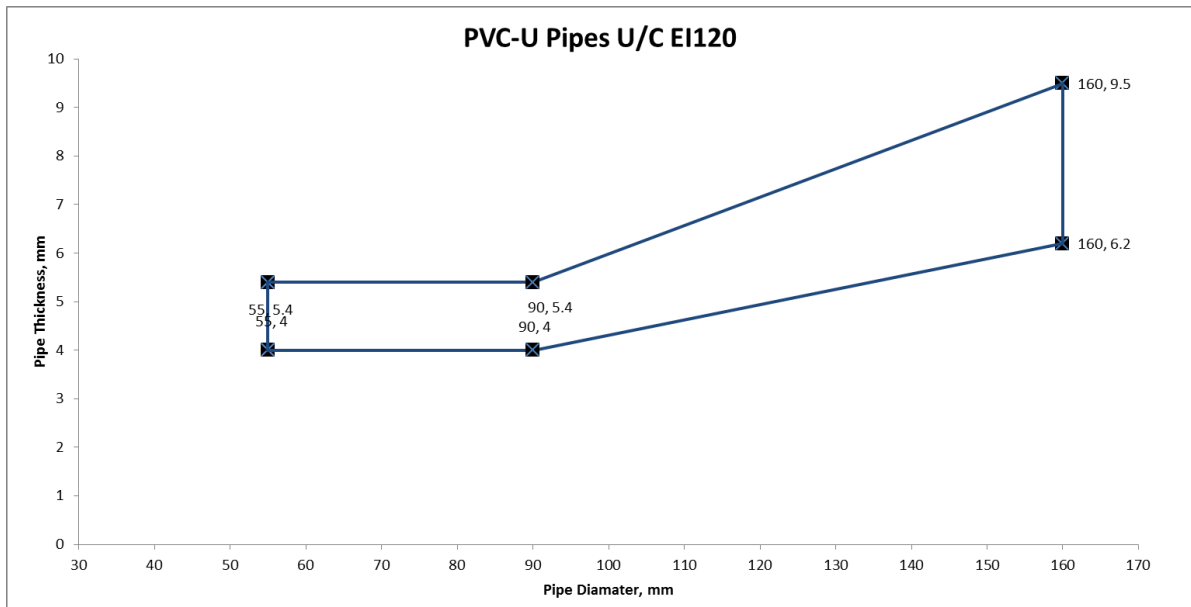
Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PP	90	2.8	PPW90-2	EI 120 U/C
	90	8.2		
	160	4.9	PPW160-2	
	160	9.1		

Scope of Approval



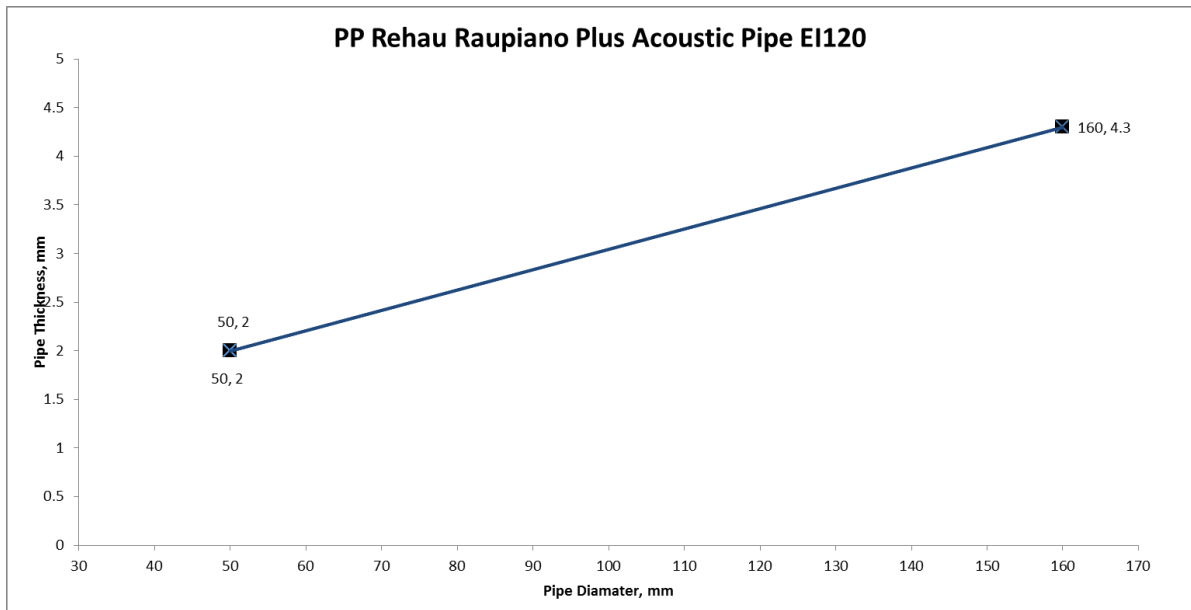
Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thckn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PVC U	90	4.0	PPW90-2	EI 120 U/C
	90	5.4		
	160	6.2	PPW160-2	
	160	9.5		

Scope of Approval



Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PP Rehau Raupiano Plus Acoustic Pipe	50	2	PPW50-2	EI 120 U/C
	160	4.3	PPW160-2	
PP Wavin AS Astolan	160	5.3	PPW160-2	E 120 C/U EI 60 C/U

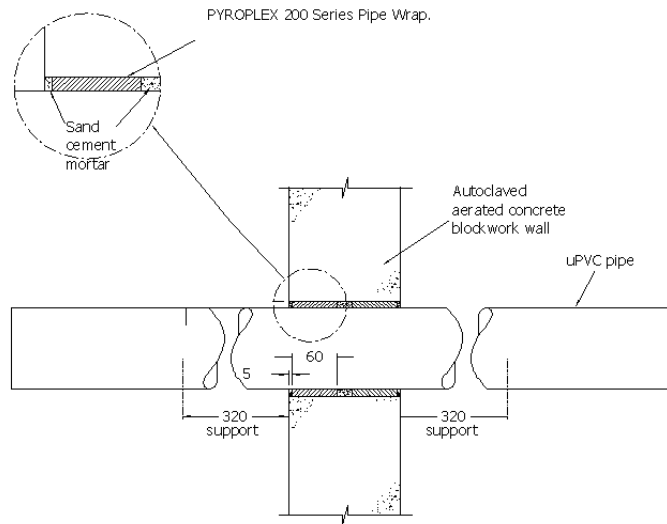
Scope of Approval



### A.1.2 Penetration seal with 200 Series Wrap installed to both faces of wall

**Penetration Seal:** Combustible pipes fitted with a single Pyroplex 200 Series Wrap to both sides of the wall.

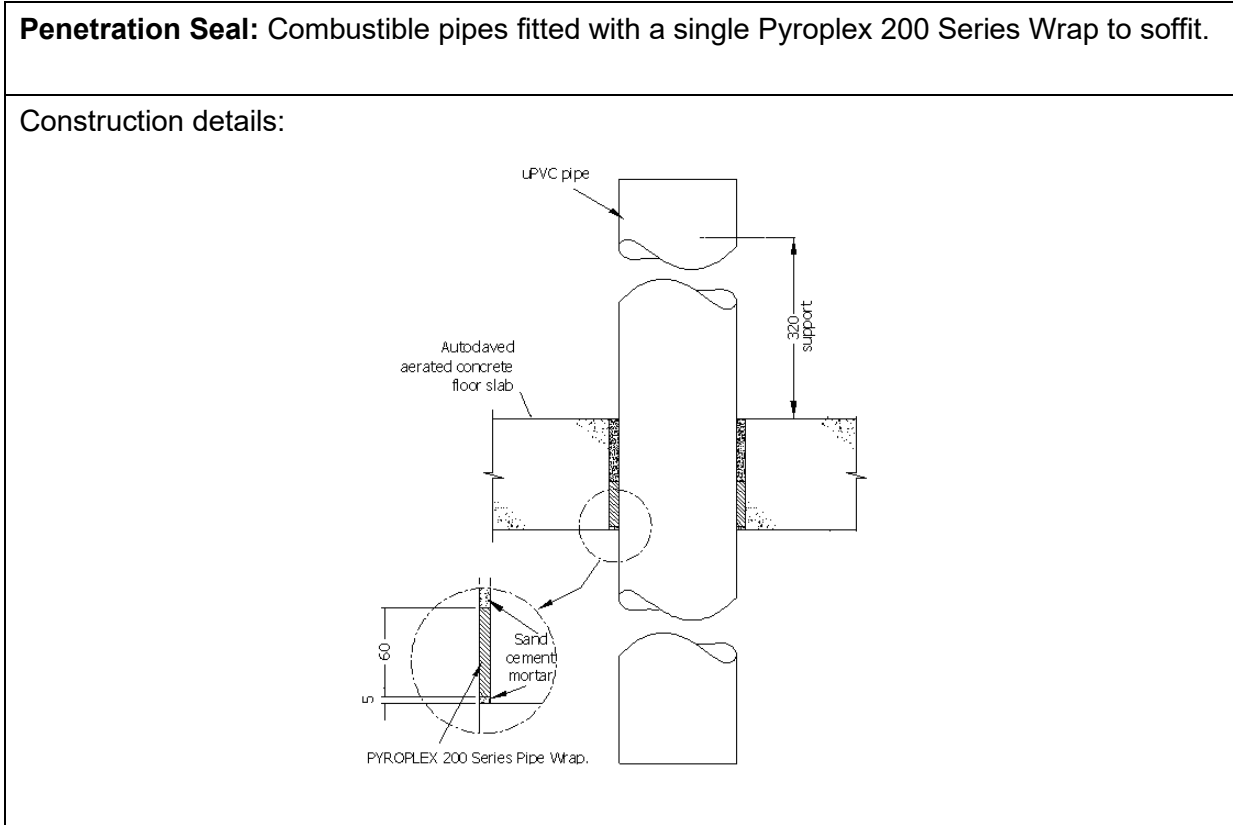
Construction details:



Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thicken. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PVC U	50	3.2	PPW55-2	EI 120 U/C
	82	3.2	PPW82-2	
	110	3.2	PPW110-2	
	160	3.2	PPW160-2	

**A.2 Rigid floor constructions according to 1.2.1 with floor thickness of minimum 150 mm**

**A.2.1 Penetration seal with 200 Series Wrap positioned to soffit of floor**

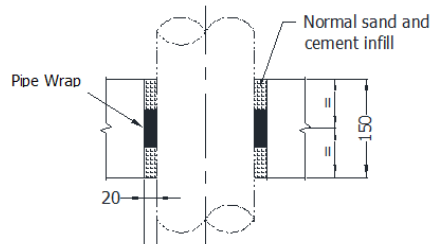


Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thckn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PVC U	50	3.2	PPW55-2	EI 120 U/C
	82	3.2	PPW82-2	
	110	3.2	PPW110-2	
	160	3.2	PPW160-2	

### A.2.2 Penetration seal with 200 Series Wrap positioned centrally within the floor

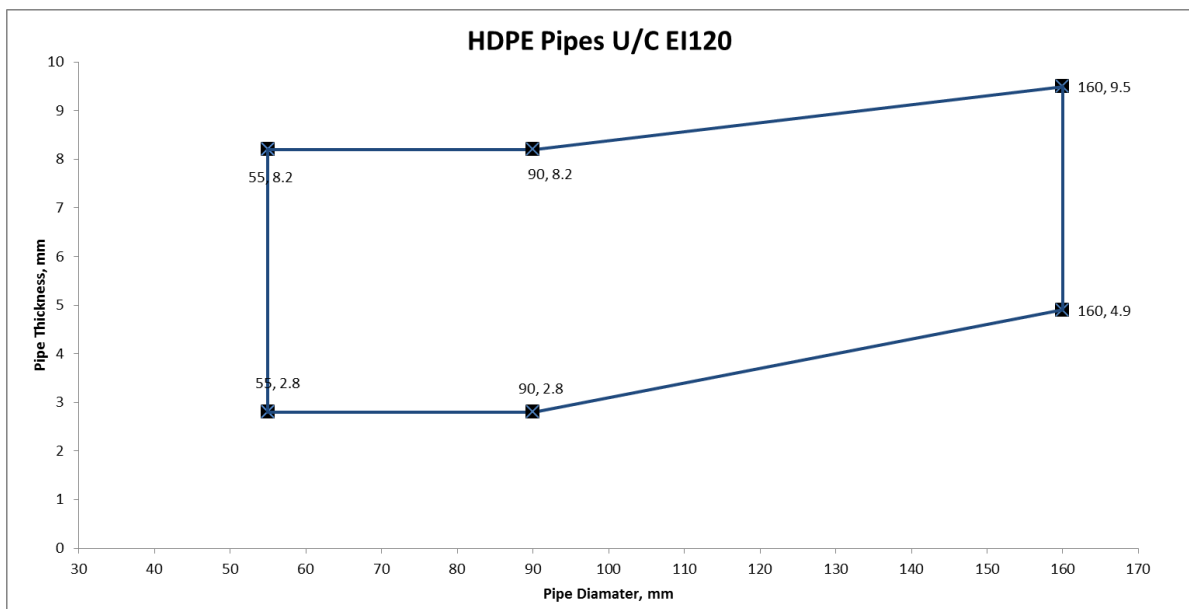
**Penetration Seal:** Combustible pipes fitted with a single Pyroplex 200 Series centrally within the floor within the floor

Construction details:



Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thckn. Range (mm)	Intumescent Specification	FIRE RESISTANCE CLASSIFICATION
HDPE	90	2.8	60mm x 4.75	EI 120 U/C
	90	8.2		
	160	4.9	60mm x 14	
	160	9.5		

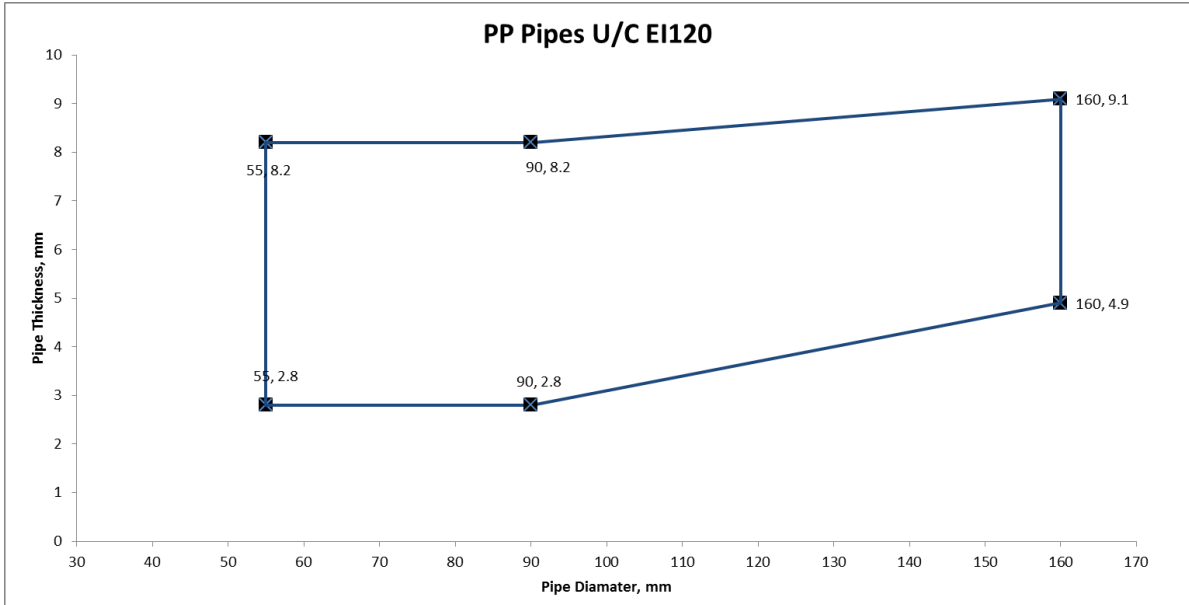
#### Scope of Approval





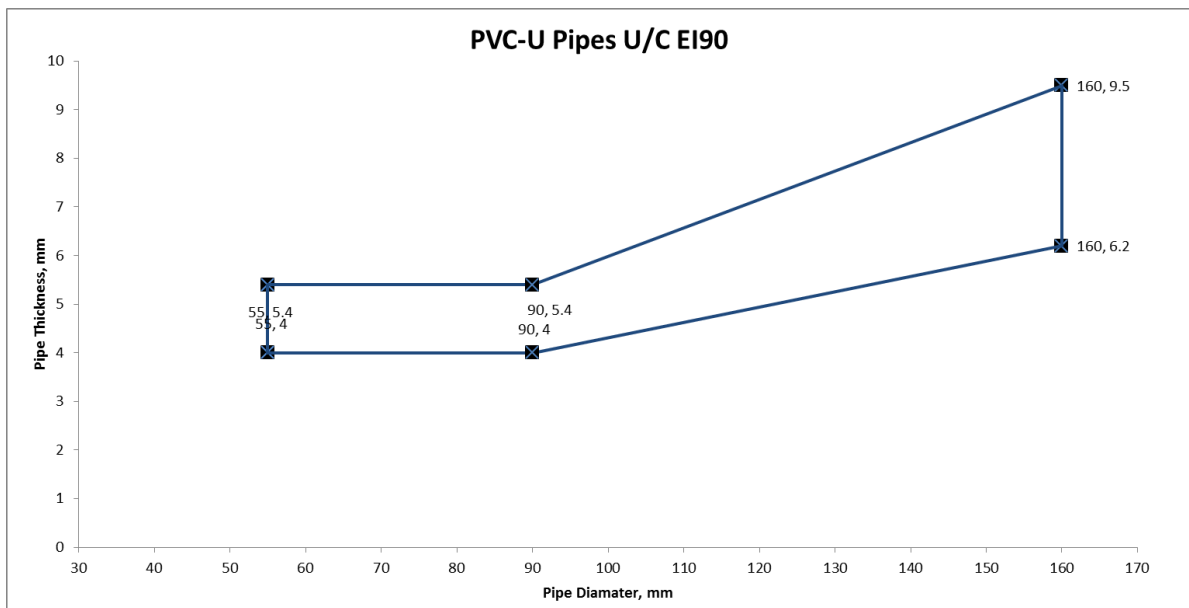
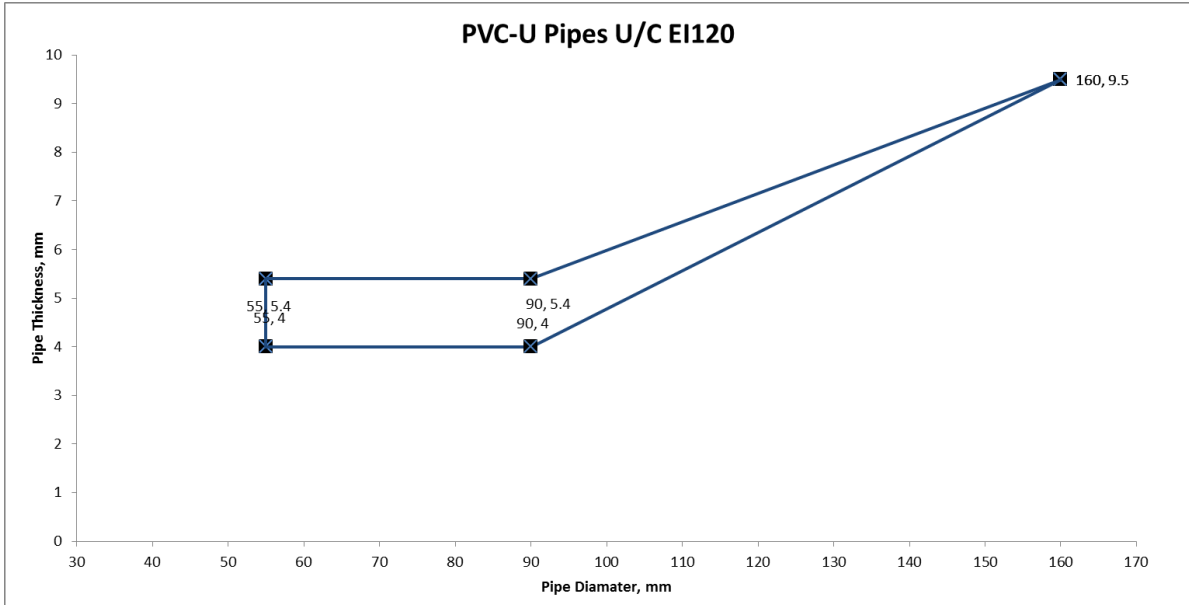
Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	Intumescent Specification	FIRE RESISTANCE CLASSIFICATION
PP	90	2.8	60mm x 4.75	EI 120 U/C
	90	8.2		
	160	4.9	60mm x 14	
	160	9.1		

Scope of Approval

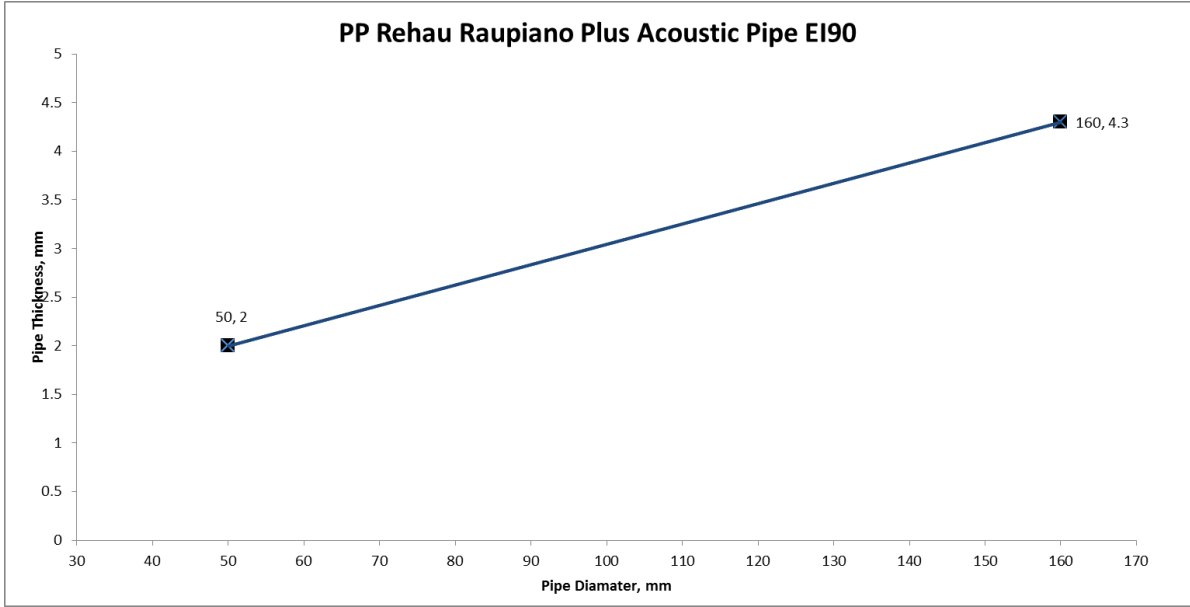


Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	Intumescent Specification	FIRE RESISTANCE CLASSIFICATION
PVC U	90	4.0	60mm x 4.75	EI 120 U/C
	90	5.4		
	160	6.2	60mm x 14	
	160	9.5		

Scope of Approval



Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	Intumescent Specification	FIRE RESISTANCE CLASSIFICATION
PP Rehau Raupiano Plus Acoustic Pipe	50	2	60mm x 4.75	EI 120 U/C
	160	4.3	60mm x 14	
PP Wavin AS Astolan	160	5.3	60mm x 14	EI 90 U/C



Scope of Approv

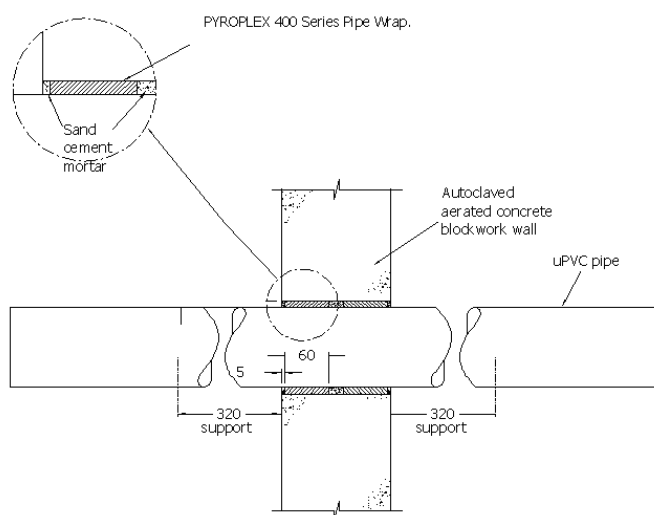
## Resistance to Fire Classification of 400 Series Wrap

### A.3 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm

#### A.3.3 Penetration seal with 400 Series Wrap fixed to both faces of wall

**Penetration Seal:** Combustible pipes fitted with a single Pyroplex 400 Series Wrap to both sides of the wall.

Construction details:

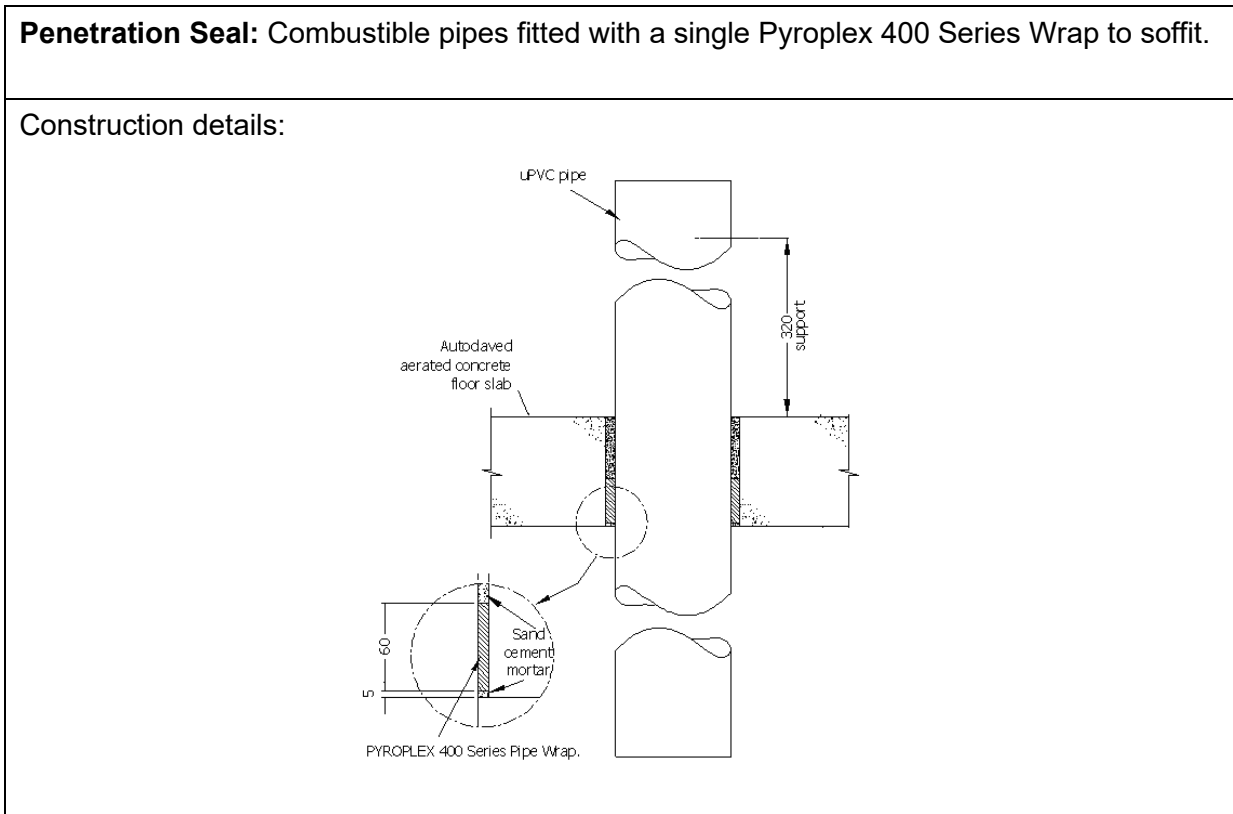


Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thicken. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PVC U	50	3.2	PPW55-4	EI 240 U/C
	82	3.2	PPW82-4	
	110	3.2	PPW110-4	
	125	3.2	PPW125-4	
	160	3.2	PPW160-4	

**A.4 Rigid floor constructions according to 1.2.1 with floor thickness of minimum 150 mm**

**A.4.3 Penetration seal with 400 Series Wrap fixed to soffit of the floor**

**Penetration seal with 400 Series Wrap fixed to soffit of floor**



Penetrating Service Item (Tested)	Diameter(mm)	Pipe wall thickn. Range (mm)	200 Series Wrap	FIRE RESISTANCE CLASSIFICATION
PVC U	50	3.2	PPW55-4	EI 120 U/C
	82	3.2	PPW82-4	
	110	3.2	PPW110-4	
	125	3.2	PPW125-4	EI 180 U/C
	160	3.2	PPW160-4	