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United Kingdom

appointed according to Article 29 of Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020

UK Technical Assessment

0843-UKTA-25/0029 of 28/11/2025

Technical Assessment Body Issuing the UKTA:	UL International (UK) Ltd
Trade name of the construction product	Gyproc Pipe Wrap
Product family to which the construction product belongs	Fire Stopping and Sealing Product: • Penetration Seals
Manufacturer	Saint-Gobain Construction Products UK Ltd t/a British Gypsum Saint-Gobain House, East Leake, Loughborough, Leicestershire, LE12 6JU
Manufacturing plant(s)	A/003
This UK Technical Assessment contains	41 pages including 1 Annex which forms an integral part of this assessment.
This UK Technical Assessment* is issued, on the basis of	EAD 350454-00-1104, September 2017.

*** in accordance with Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020**

Table of Contents

I. SPECIFIC PARTS OF THE UK TECHNICAL ASSESSMENT

1 Technical description of the product

1) Gyproc Pipe Wrap is a pipe closure device used to form penetration seals where insulated and uninsulated combustible pipes and insulated metal pipes penetrate walls and floors.

2) The Gyproc Pipe Wrap is supplied in Polyethylene bags size according to pipe diameter or supplied in single layer 25 metre rolls. The number of layers necessary are stated in Appendix 1. The wrap is wrapped around the service penetration and pushed into the aperture in the separating element. For installation in combination with Gyproc Fire Batt or Gyproc Fire Mortar, please refer to the sealing product's UK Technical Assessment.

3) 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 United Kingdom 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.

4) The use category of Gyproc Pipe Wrap in relation to BWR 3 (Hygiene, health and environment) is IA2, S/W2

2 Specification of the intended uses of the product in accordance with the applicable UK Assessment Document (Pre-Exit European Assessment Document): EAD 350454-00-1104: 2017

Detailed information and data is given in Annex A.

1) The intended use of system Gyproc Pipe Wrap is to reinstate the fire resistance performance of rigid wall and floor constructions, where they are penetrated by services.

2) The specific elements of construction that the system Gyproc Pipe Wrap may be used to provide a penetration seal in, are as follows:

   a. 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^3.

   b. 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^3.

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

3) Services in floors shall be supported at maximum 450 mm from the top face. Services in walls shall be supported at maximum 270mm from both faces of the wall.

4) The system Gyproc Pipe Wrap may be cast, or friction fitted into rigid constructions, where the aperture fit the outside diameter of the wrapped service penetration. A gap around the wrap of maximum 10 mm is allowed, subject to the gap being filled with Gyproc Acrylic Fire Sealant to the full depth of the wrap. The minimum permitted separation between adjacent seals/apertures is 30 mm.

5) The system Gyproc Pipe Wrap may be used to provide a penetration seal with specific supporting constructions and substrates (for details see Annex A).

6) Services through the system Gyproc Pipe Wrap may be used in all angles between 90° and 45° in all directions, subject to metallic pipes only.

7) Where PVC pipes are mentioned in Annex A, this includes PVC-U, PVC-C and similar if the pipe is according to EN 1329-1, EN 1452-2, EN 1453-1^ and EN 1566-1. Where PP pipes are mentioned in Annex A, this includes PP-MV, PP-H, PP-R and similar if the pipe is according to EN 1451-1 or DIN 8077/8078. Where PE pipes are mentioned, this includes PE-LD, PE-MD, PE-HD, PE-X and similar according to EN 1519-1, EN 12201-2 or EN 12666-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1. Where steel pipes are mentioned in Annex A, this includes iron pipes.

8) When installing the system Gyproc Pipe Wraps in hollow floor slabs, the fire seal must be level with the soffit side. There must be sufficient thickness of concrete below the void for the depth of the fire seal. Where this is not the case, tubular voids should be plugged with Gyproc Fire Mortar before sealing the aperture.

9) The provisions made in this United Kingdom Technical Assessment are based on an assumed working life of the Gyproc Pipe Wrap of 25 years, provided that the conditions laid down in the manufacturers datasheet and instructions 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.

10) Type X: intended for use at conditions exposed to weathering.

3 Performance of the product and references to the methods used for its assessment

Product-type: Pipe Wrap		Intended use: Penetration Seal
Assessment method	Essential characteristic	Product Performance
BWR 2 Safety in case of fire		
EN 13501-1	Reaction to fire	No performance determined
EN 13501-2	Resistance to fire	Annex A
BWR 3 Hygiene, health and environment		
EN 1026	Air permeability	No performance determined
EAD 350454-00-1104, Annex C	Water permeability	No performance determined
Declaration of manufacturer & EN 16516	Release of dangerous substances	Use categories: IA2, S/W2 Declaration of manufacturer
BWR 4 Safety in use		
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
EAD 350454-00-1104, Clause 2.2.9	Durability	X
BWR 5 Protection against noise		
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation	No performance determined
BWR 6 Energy economy and heat retention		
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 14683, EN ISO 10211, EN ISO 10456	Thermal properties	No performance determined
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour permeability	No performance determined

4 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE (HEREINAFTER AVCP) SYSTEM APPLIED, WITH REFERENCE TO ITS LEGAL BASE

According to the Statutory Instrument 2019 No. 465 – made 5th March 2019 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and coming into force on exit day and Statutory Instrument 2020 No. 1359 – made 26th November 2020 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 and coming into force immediately before the 2019 Regulations come into force, on the procedure for attesting the conformity of construction products as regards fire stopping, fire sealing and fire protective products, published as 'Pre-Exit' European Assessment Documents, (see https://www.gov.uk/guidance/pre-exit-european-assessment-documents-construction-products), the system of assessment and verification of constancy of performance (see Annex V to Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020) given in the following table(s) apply.

Product(s)	Intended use(s)	Level(s) or class(es)	System(s)
Fire stopping and Fire Sealing Products	For fire compartmentation and/or fire protection or fire performance	Any	1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Tasks of 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 UK Technical Assessment.

The factory production control shall be in accordance with the Control Plan of 25th June 2024 relating to the UK Technical Assessment 0843-UKTA-25/0029 issued on 28/11/2025 which is part of the technical documentation of this UK technical Assessment. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at UL International (UK) Ltd.

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

Other tasks of the 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.
- Limits in size, minimum thickness etc. of the penetration seal
- Construction of the penetration seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.
- Services 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. pipe trays)

(b) Installation instruction:

- Steps to be followed
- Procedure in case of retrofitting
- Stipulations on maintenance, repair and replacement

6 Issued on:

28th November 2025

Report by:

P. Foster
Associate Project Engineer
Built Environment

Reviewed by:

D. Forshaw
Staff Engineer
Built Environment

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

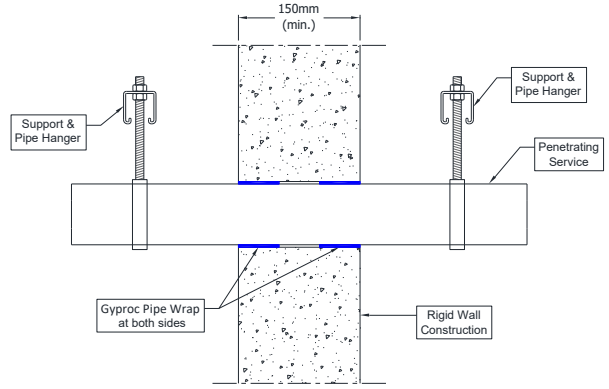
ANNEX A – Resistance to Fire Classification – Gyproc Pipe Wrap

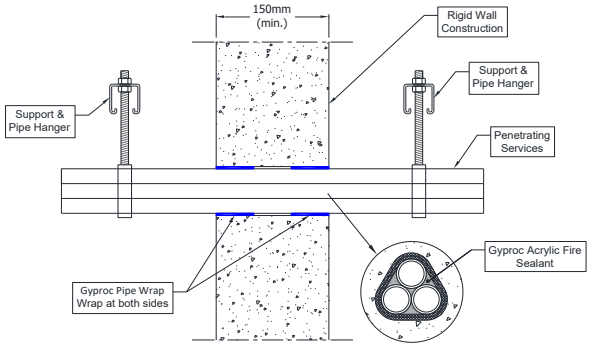
A.1 Rigid wall constructions according to 2. 2)

A.1.1 Penetration seal with Gyproc Pipe Wrap

Penetration Seal: Plastic pipes with Gyproc Pipe Wraps fitted around the pipe, cast or friction fitted within the wall. Minimum separation and maximum aperture according to 2.4).

Construction details:





A.1.1.1 Double side penetration seal with pipes

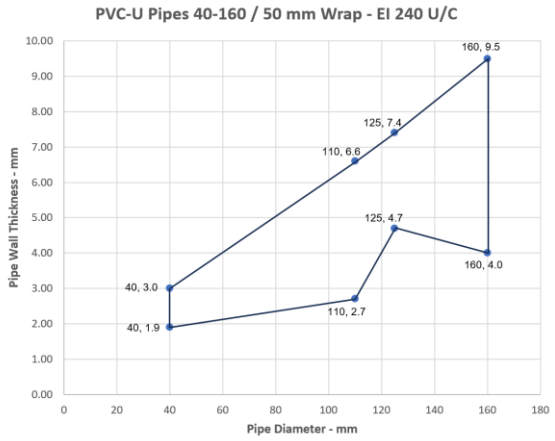
Services	Wrap	Classification
PVC-U pipe according to EN 1329-1, EN 1452-1 and EN 1453-1 and PVC-C according to EN 1566-1		
Up to 40 mm diameter / 1.9-3.0 mm wall*	50 x 1.8 mm	**EI 120 U/U**
Up to 40 mm diameter / 1.9-3.0 mm wall*	50 x 1.8 mm	**EI 240 U/C**
Up to 40 mm diameter / 3.1-4.3 mm wall	50 x 1.8 mm	**E 120 U/C, EI 60 U/C**
Up to 50 mm diameter / 1.0-1.8 mm wall*	50 x 3.6 mm	**EI 120 U/C**
Up to 110 mm diameter / 2.7-6.6 mm wall*	50 x 3.6 mm	**EI 240 U/C**
Up to 125 mm diameter / 3.7-7.4 mm wall*	50 x 5.4 mm	**EI 120 U/C**
Up to 125 mm diameter / 4.7-7.4 mm wall*	50 x 7.2 mm	**EI 240 U/C**
Up to 160 mm diameter / 3.2-9.5 mm wall*	50 x 7.2 mm	**EI 60 U/C**
Up to 160 mm diameter / 4.0-9.5 mm wall*	50 x 10.8 mm	**EI 240 U/C**
Up to 200 mm diameter / 4.9-11.9 mm wall*	75 x 10.8 mm	**EI 180 C/C**
Up to 315 mm diameter/7.7-12.1 mm wall thickness*#	75 x 18 mm	**EI 120 C/C**
Up to 400 mm diameter/9.8-15.3 mm wall thickness*#	75 x 28.8 mm	
Diameter up to 32 mm Ø, wall thickness 1.0-2.4 mm in pipe bundles up to 107 mm Ø [1)]	50 x 3.6 mm	**EI 240 U/C**
Diameter up to 110 mm, wall thickness 1.0-6.6 mm, fully or partially filled conduits with cables up to 14 mm diameter	50 x 3.6 mm	**EI 120 U/C**
Diameter up to 32 mm, wall thickness 1.0-2.4 mm, fully or partially filled conduits with cables up to 14 mm diameter, in pipe bundles up to 110 mm diameter [1)]	50 x 3.6 mm	**EI 90 U/C**

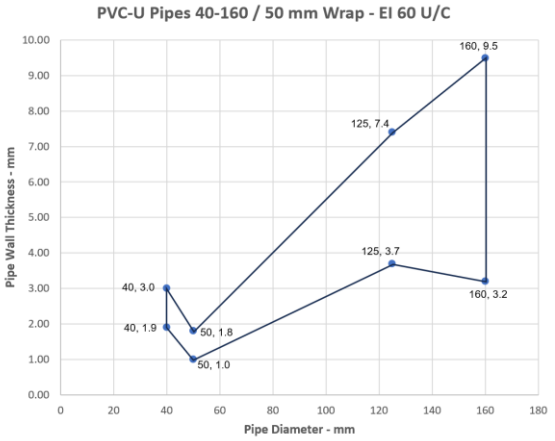
Services	Wrap	Classification
PE pipe according to EN 1519-1, EN 12201-2 and EN 12666-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1		
Up to 40 mm diameter / 2.4-3.7 mm wall	50 x 1.8 mm	**EI 120 U/U**
Up to 40 mm diameter / 2.4-4.6 mm wall*	50 x 1.8 mm	**EI 240 U/C**
Up to 110 mm diameter / 3.4-10.0 mm wall*	50 x 3.6 mm	**EI 240 U/C**
Up to 125 mm diameter / 4.8-12.0 mm wall*	50 x 5.4 mm	**E 120 U/C, EI 90 U/C**
Up to 125 mm diameter / 3.9-7.4 mm wall*	50 x 7.2 mm	**EI 240 U/C**
Up to 160 mm diameter / 4.9-9.5 mm wall*	50 x 10.8 mm	**EI 240 U/C**
Up to 160 mm diameter / 9.6-14.6 mm wall*	50 x 10.8 mm	**E 90 U/C, EI 60 U/C**
Up to 160 mm diameter / 9.6-14.6 mm wall*	50 x 10.8 mm	**EI 120 C/C**
Up to 200 mm diameter / 4.9-18.2 mm wall*	75 x 10.8 mm	**EI 180 C/C**
Up to 315 mm diameter / 18.7-28.5 mm wall*	75 x 18.0 mm	**E 180 C/C, EI 60 C/C**
Up to 315 mm diameter / 28.6 mm wall	75 x 18.0 mm	**E 180 C/C, EI 120 C/C**
Up to 400 mm diameter / 9.8-36.2 mm wall*	75 x 28.8 mm	**EI 30 C/C**
Up to 400 mm diameter / 23.7 mm wall	50 x 28.8 mm	**EI 60 C/C**
Up to 400 mm diameter / 23.7-36.2 mm wall	75 x 28.8 mm	**EI 60 C/C**
Up to 400 mm diameter / 36.3 mm wall	75 x 28.8 mm	**EI 120 C/C**
Diameter up to 32 mm Ø, wall thickness 2.0-4.4 mm in pipe bundles up to 107 mm Ø [1)]	50 x 3.6 mm	**EI 240 C/U**
Diameter up to 110 mm, wall thickness 2.0–10.0 mm, fully or partially filled conduits with cables up to 14 mm diameter	50 x 3.6 mm	**EI 120 U/C**
Diameter up to 40 mm Ø, wall thickness 2.0-3.7 mm, fully or partially filled conduits with cables up to 14 mm diameter, in pipe bundles up to 110 mm diameter [1)]	50 x 3.6 mm	**EI 90 U/C**
PP pipe according to EN 1451-1		
Up to 40 mm diameter / 1.8-5.5 mm wall*	50 x 1.8 mm	**EI 120 U/U**
Up to 40 mm diameter / 1.8-5.5 mm wall*	50 x 1.8 mm	**EI 240 U/C**
Up to 110 mm diameter / 2.7-10.0 mm wall*	50 x 3.6 mm	**EI 240 C/C**
Up to 110 mm diameter / 2.7-15.1 mm wall*	50 x 3.6 mm	**EI 90 U/U**
Up to 125 mm diameter / 3.1-17.1 mm wall	50 x 5.4 mm	**E 120 U/C, EI 90 U/C**
Up to 125 mm diameter / 3.1-11.4 mm wall*	50 x 7.2 mm	**EI 240 C/C**
Up to 160 mm diameter / 4.9-14.6 mm wall*	50 x 10.8 mm	**EI 240 C/C**
Up to 160 mm diameter / 4.9-21.9 mm wall	50 x 10.8 mm	**EI 60 U/C**
Up to 200 mm diameter / 4.9-18.2 mm wall*	75 x 10.8 mm	**EI 180 C/C**
Up to 315 mm diameter / 12.1-28.5 mm wall*	50 x 18 mm	**EI 30 C/C**
Up to 315 mm diameter / 28.6 mm wall*	50 x 18 mm	**EI 60 C/C**
Up to 400 mm diameter / 22.7 mm wall*	50 x 28.8 mm	**EI 45 C/C**
Diameter up to 32 mm Ø, wall thickness 1.8-4.4 mm in pipe bundles up to 107 mm Ø [1)]	50 x 3.6 mm	**EI 240 C/U**
Diameter up to 110 mm, wall thickness 1.8–10.0 mm, fully or partially filled conduits with cables up to 14 mm diameter	50 x 3.6 mm	**EI 120 U/C**
Diameter up to 40 mm Ø, wall thickness 1.8-2.0 mm, fully or partially filled conduits with cables up to 14 mm diameter, in pipe bundles up to 110 mm diameter [1)]	50 x 3.6 mm	**EI 90 U/C**

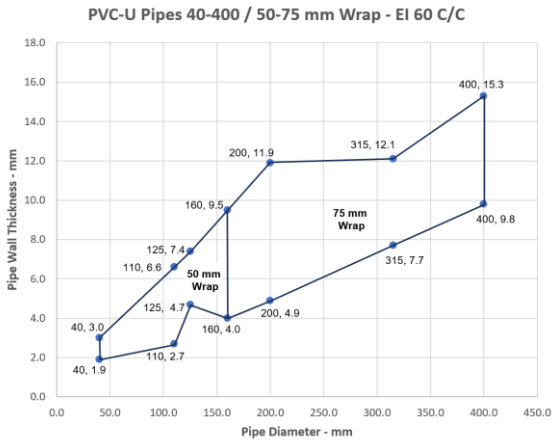
[1)] PVC, PE and PP pipes can be mixed in the same bundle.

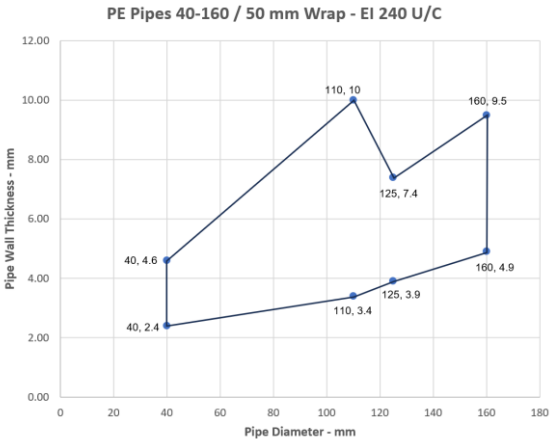
* Typical pipe diameters shown, see below graph for intermediate sizes.

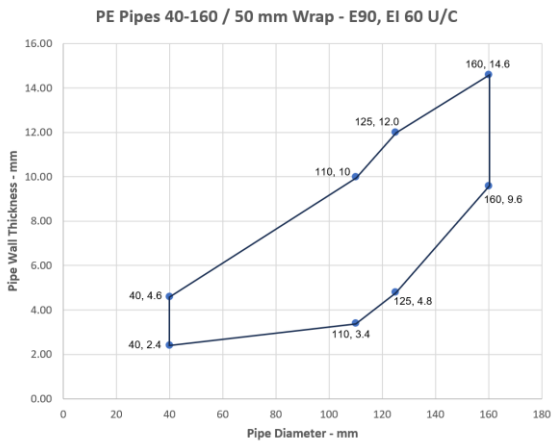
Configuration 1 & 2

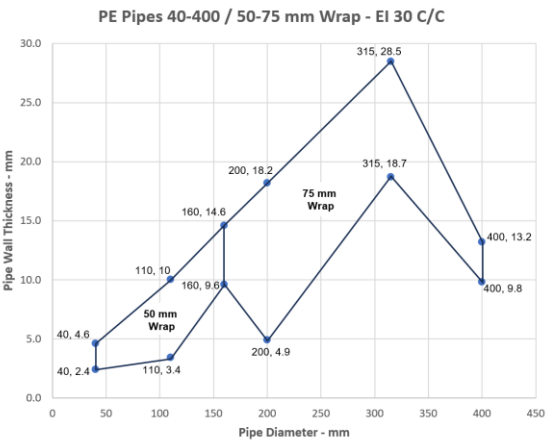

PVC-U Pipes 40-160 / 50 mm Wrap - EI 240 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 9.5
125, 7.4
110, 6.6
125, 4.7
160, 4.0
40, 3.0
40, 1.9
110, 2.7

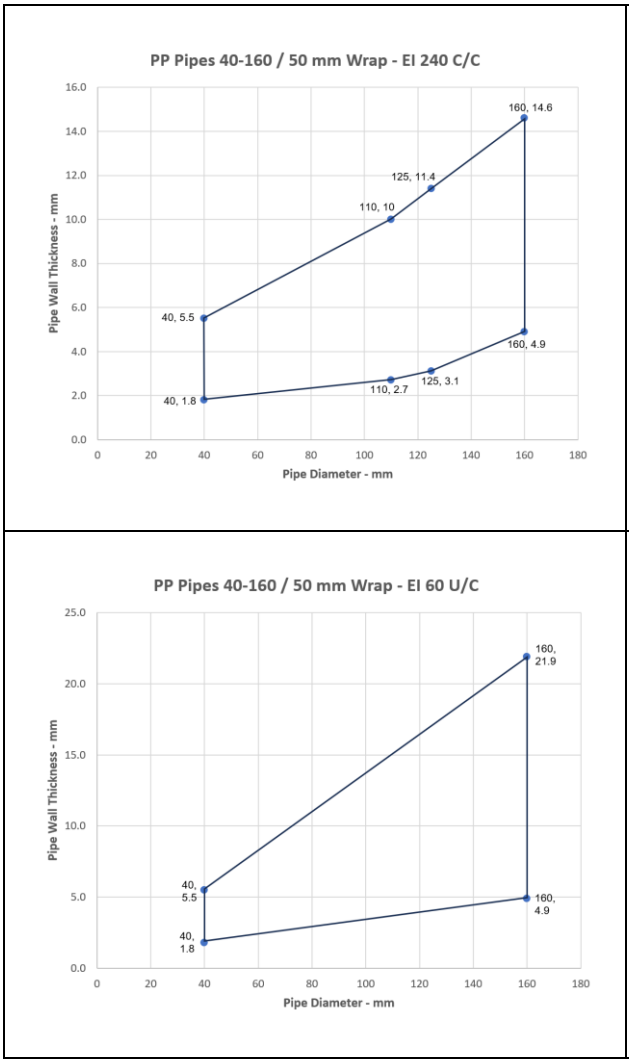

PVC-U Pipes 40-160 / 50 mm Wrap - EI 60 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 9.5
125, 7.4
125, 3.7
160, 3.2
40, 3.0
40, 1.9
50, 1.8
50, 1.0

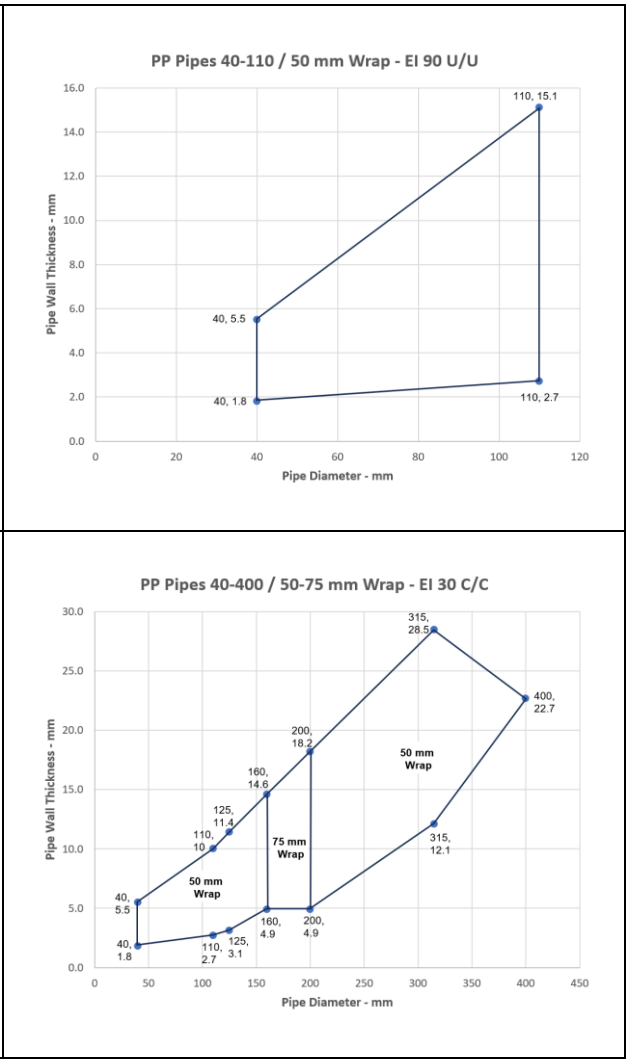

PVC-U Pipes 40-400 / 50-75 mm Wrap - EI 60 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
400, 15.3
315, 12.1
200, 11.9
160, 9.5
75 mm
Wrap
400, 9.8
125, 7.4
110, 6.6
50 mm
Wrap
315, 7.7
125, 4.7
200, 4.9
160, 4.0
40, 3.0
110, 2.7
40, 1.9


PE Pipes 40-160 / 50 mm Wrap - EI 240 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
110, 10
160, 9.5
125, 7.4
40, 4.6
160, 4.9
125, 3.9
110, 3.4
40, 2.4


PE Pipes 40-160 / 50 mm Wrap - E90, EI 60 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 14.6
125, 12.0
110, 10
160, 9.6
40, 4.6
125, 4.8
40, 2.4
110, 3.4


PE Pipes 40-400 / 50-75 mm Wrap - EI 30 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
315, 28.5
200, 18.2
315, 18.7
75 mm
Wrap
160, 14.6
400, 13.2
110, 10
160, 9.6
400, 9.8
50 mm
Wrap
40, 4.6
200, 4.9
40, 2.4
110, 3.4


PP Pipes 40-160 / 50 mm Wrap - EI 240 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 14.6
125, 11.4
110, 10
40, 5.5
160, 4.9
125, 3.1
110, 2.7
40, 1.8


PP Pipes 40-110 / 50 mm Wrap - EI 90 U/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
110, 15.1
40, 5.5
40, 1.8
110, 2.7

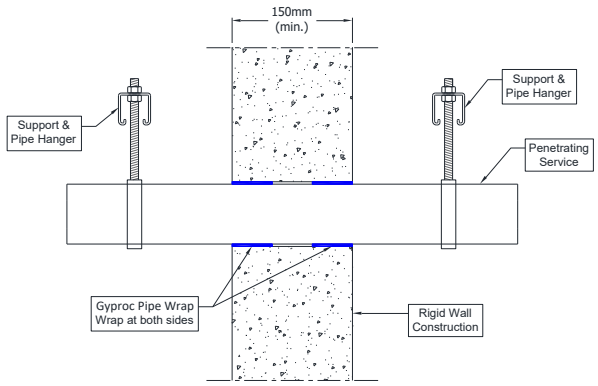
PP Pipes 40-160 / 50 mm Wrap - EI 60 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 21.9
40, 5.5
160, 4.9
40, 1.8

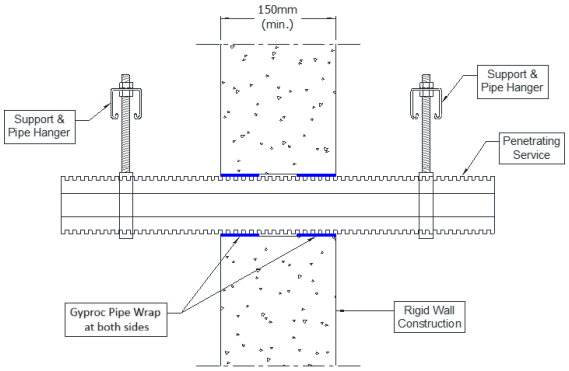
PP Pipes 40-400 / 50-75 mm Wrap - EI 30 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
315, 28.5
400, 22.7
200, 18.2
50 mm Wrap
160, 14.6
125, 11.4
110, 10
75 mm Wrap
315, 12.1
50 mm Wrap
40, 5.5
160, 4.9
200, 4.9
40, 1.8
110, 2.7
125, 3.1

A.1.2 Gyproc Pipe Wrap penetration seal for plastic pipes, in rigid walls

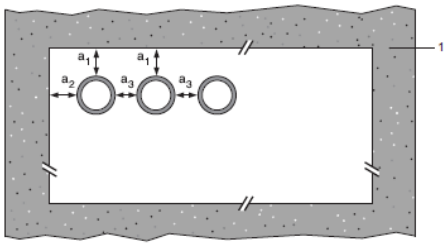
Penetration Seal: Combustible pipes sealed with Gyproc Pipe Wrap, to both sides of the wall. Minimum separation and maximum aperture according to 2.4) (Configuration 1 & 2).

Construction details:

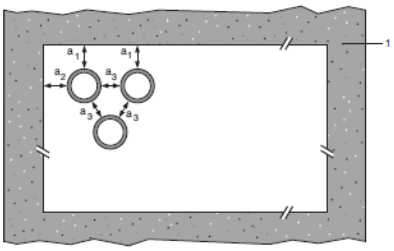




Configuration 1:



Configuration 2:



Key

1 Supporting construction
a1 Pipe / top edge of seal separation
a2 Pipe / side edge of seal separation
a3 Pipe / pipe separation

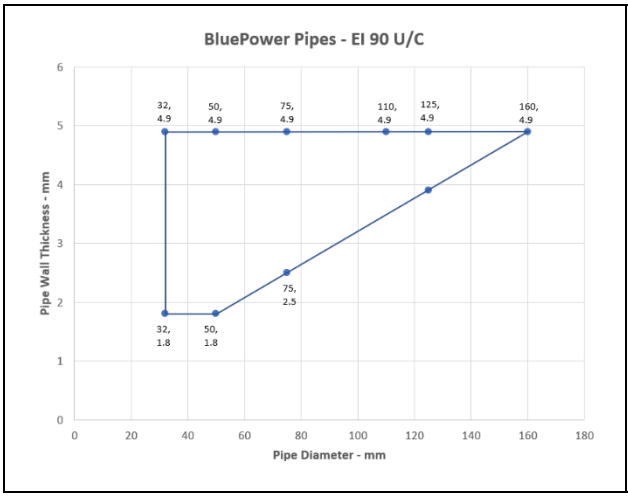
A.1.2.1

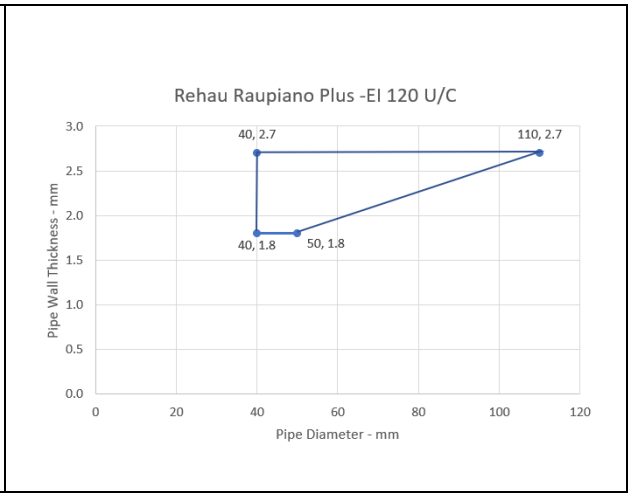
Services	Wraps (both sides)	Permitted configuration for seal separation	Classification
Uponor Wirsbo PEX double pipe in pipe system according to ISO 15875			
Diameter up to 54 mm/4.0 mm wall thickness (outer pipe), 28 mm diameter/0.4 mm wall thickness (inner pipe)	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 C/C**
Diameter up to 25 mm pipes, wall thickness 0.6 mm, in bundles up to 50 mm	50 x 3.6 mm (2 x 1.8 layers)		**EI 90 C/C**
Uponor Decibel pipe according to EN 1451-1			
50 mm diameter/2.0 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 90 U/U**
75-110 mm diameter/2.6-3.8 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)		**EI 90 U/C**
BluePower Multilayer pipe according to EN 1451-1			
32-50 mm diameter/1.8 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 90 U/U**
75-110 mm diameter/3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**EI 90 C/U**

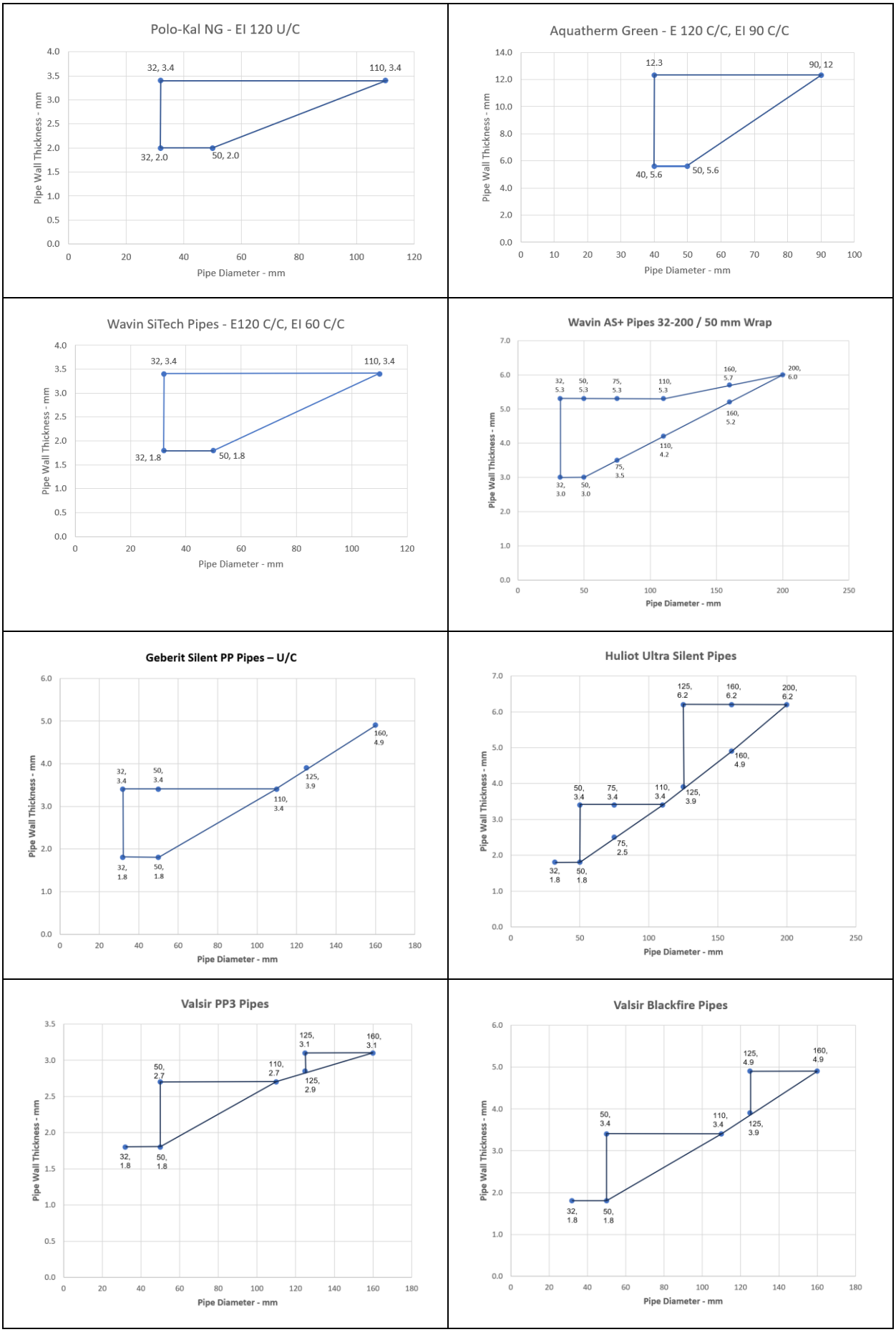
125-160 mm diameter/3.9-4.9 mm wall thickness	50 x 10.8 mm (6 x 1.8 layers)		**EI 90 U/C**
Services	**Wraps (both sides)**	**Permitted configuration for seal separation**	**Classification**
Rehau Raupiano Plus PP-DD according to DIN 4102			
40-50 mm diameter/1.8-2.7 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter/2.7 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**EI 120 U/C**
125 mm diameter/3.9 mm wall thickness	50 x 7.2 mm (4 x 1.8 layers)		**EI 120 U/C**
160 mm diameter/3.9 mm wall thickness	50 x 10.8 mm (6 x 1.8 layers)		**EI 120 U/C**
Polo-Kal NG Poloplast PP-MV according to DIN 4102			
32-50 mm diameter/2.0-3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter/3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**EI 120 U/C**
125 mm diameter/3.9 mm wall thickness	50 x 7.2 mm (4 x 1.8 layers)		**EI 120 U/C**
160 mm diameter/4.9 mm wall thickness	50 x 10.8 mm (6 x 1.8 layers)		**EI 120 U/C**
Aquatherm Green SDR9 MF PP-RP according to ISO 21003			
32 mm diameter/3.0 mm wall thickness	50 x 1.8 mm (1 x 1.8 layer)	1 & 2	**E 120 C/C, EI 90 C/C**
40-50 mm diameter/5.6-12.3 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**E 120 C/C, EI 90 C/C**
63-110 mm diameter/12.3 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**E 120 C/C, EI 90 C/C**
Wavin SiTech + PP-M B according to EN 13501-1			
32-50 mm diameter/1.8-3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U, EI 90 U/U**
75-110 mm diameter/3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)		**E 120 U/C, EI 60 U/C**
Wavin AS+ pipes according to EN 12056 and DIN 1986-100			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/C, EI 90 U/C**
75-110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**E 120 U/C, EI 90 U/C**
160-200 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 90 C/C**
Geberit Silent PP according to DIN 4102			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**EI 120 U/C**
125-160 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 90 U/C**

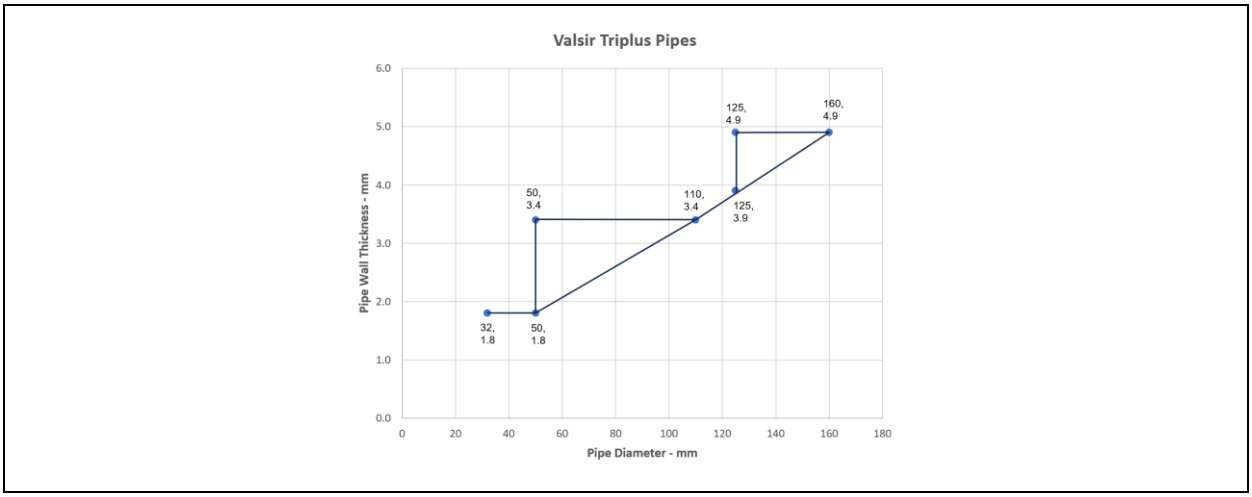
Services	Wraps (both sides)	Permitted configuration for seal separation	Classification
Huliot Ultra Silent pipes according to EN 1451-1			
50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U, EI 90 U/U**
75-110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**EI 90 U/C**
125-160 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 90 U/C**
160-200 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**E 120 C/C, EI 90 C/C**
Valsir PP3 pipes according to EN 1451-1			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U, EI 20 U/U**
110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**EI 120 U/C**
125-160 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 120 U/C**
Valsir Blackfire pipes according to DIN 4102			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U**
110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**EI 120 U/C**
125-160 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 120 U/C**
Valsir Triplus pipes according to EN 1451-1			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U**
110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)		**E 120 U/C, EI 90 U/C**
125 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**E 120 U/C, EI 90 U/C**
160 mm diameter*	50 x 10.8 mm (6 x 1.8 layers)		**EI 120 U/C**

*See below graph for interpolation pipe sizes





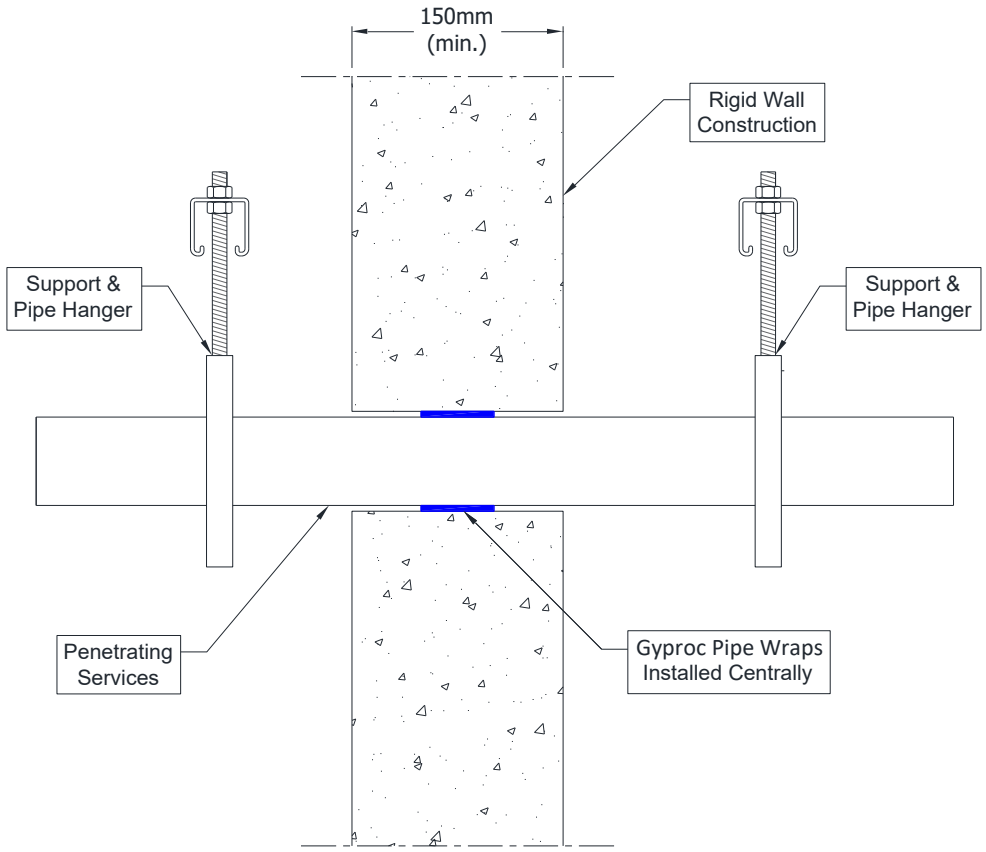

Polo-Kal NG - EI 120 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 3.4
110, 3.4
32, 2.0
50, 2.0
Aquatherm Green - E 120 C/C, EI 90 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
12.3
90, 12
40, 5.6
50, 5.6
Wavin SiTech Pipes - E120 C/C, EI 60 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 3.4
110, 3.4
32, 1.8
50, 1.8
Wavin AS+ Pipes 32-200 / 50 mm Wrap
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 5.3
50, 5.3
75, 5.3
110, 5.3
160, 5.7
200, 6.0
160, 5.2
110, 4.2
75, 3.5
32, 3.0
50, 3.0
Geberit Silent PP Pipes – U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 3.4
50, 3.4
125, 3.9
160, 4.9
110, 3.4
32, 1.8
50, 1.8
Huliot Ultra Silent Pipes
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 6.2
160, 6.2
200, 6.2
160, 4.9
50, 3.4
75, 3.4
110, 3.4
125, 3.9
75, 2.5
32, 1.8
50, 1.8
Valsir PP3 Pipes
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 3.1
160, 3.1
50, 2.7
110, 2.7
125, 2.9
32, 1.8
50, 1.8
Valsir Blackfire Pipes
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 4.9
160, 4.9
50, 3.4
110, 3.4
125, 3.9
32, 1.8
50, 1.8


Valsir Triplus Pipes
Pipe Wall Thickness - mm
Pipe Diameter - mm
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0
20
40
60
80
100
120
140
160
180
125, 4.9
160, 4.9
50, 3.4
110, 3.4
125, 3.9
32, 1.8
50, 1.8

A.1.3 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: Plastic pipes with Gyproc Pipe Wraps fitted around the pipe, cast or friction fitted within the wall. Minimum separation and maximum aperture according to 2.4).

Construction details:



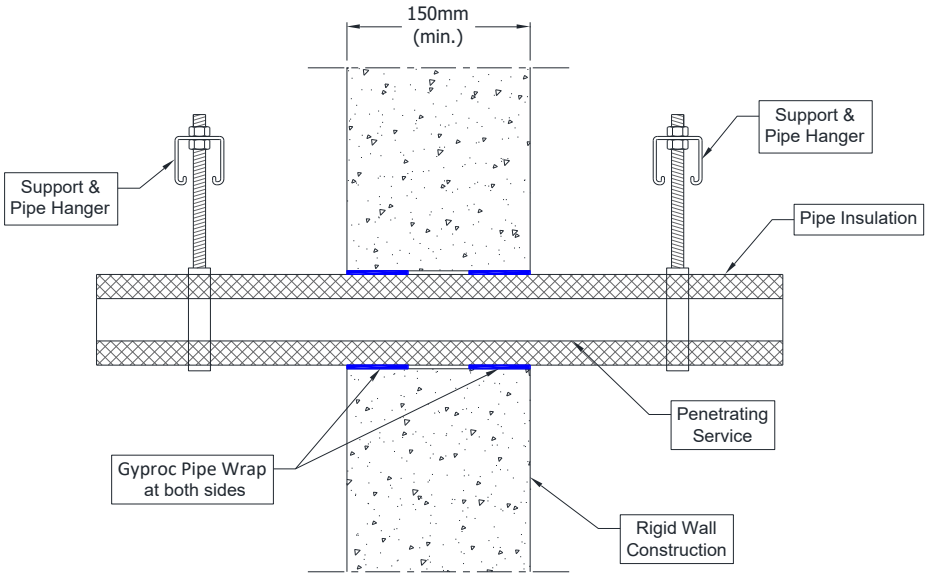
A.1.3.1 Penetration seal with pipes

Services	Wrap	Insulation	Classification
PVC-U pipes according to EN 1329-1, EN 1452-2 and EN 1453-1, PVC-C according to EN 1566-1			
315 mm diameter/9.2 mm wall	1 off 75 x 18 mm Gyproc Pipe Wrap, fitted central	None	**EI 120 C/C**

A.1.4 Pipe penetration seal with Gyproc Pipe Wrap

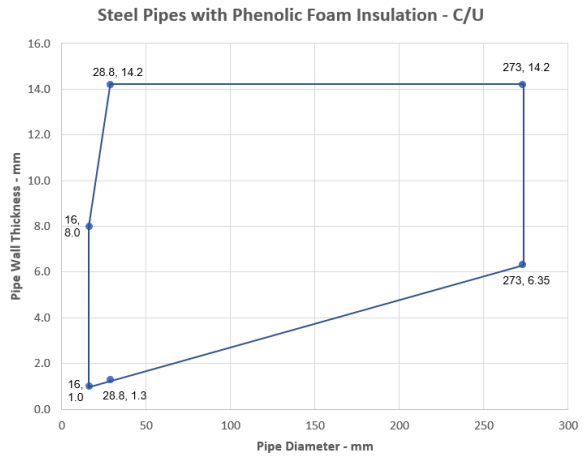
Penetration Seal: LS (Local Sustained) or CS (Continuous Sustained) insulated metallic and composite pipes with Gyproc Pipe Wraps fitted around the pipe insulation, cast or friction fitted within the wall. Minimum separation and maximum aperture according to 2.4).

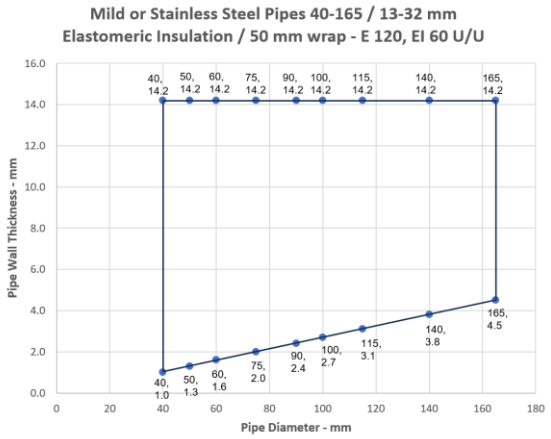
Construction details:

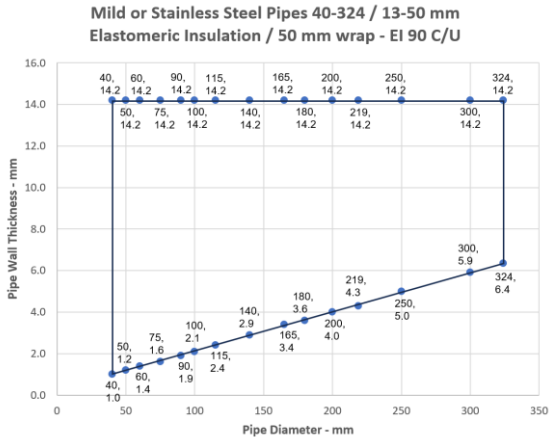


A.1.4.1 Penetration seal with pipes

Services	Wrap	Insulation	Classification
Mild or stainless steel pipe			
16 mm diameter/1.0 mm wall	50 x 1.8 mm Gyproc Pipe Wrap fitted to both sides of the wall	15 mm phenolic foam insulation (CS)	**EI 90 C/U**
16-273 mm diameter/1.0-14.2 mm wall*		25-100 mm phenolic foam insulation (CS)	
Up to 40 mm diameter/1.0-14.2 mm wall*	50 x 1.8 mm Gyproc Pipe Wrap fitted to both sides of the wall	13 mm elastomeric insulation minimum class B-s3, d0 or PE foam insulation	**EI 120 C/U**
Up to 165 mm diameter/1.0-14.2 mm wall*	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	13-32 mm elastomeric insulation minimum class B-s3, d0 or PE foam insulation	**E 120 U/U, EI 60 U/U**
Up to 324 mm diameter/1.0-14.2 mm wall*	50 x 5.4 mm Gyproc Pipe Wrap fitted to both sides of the wall	32-50 mm elastomeric insulation minimum class B-s3, d0 or PE foam insulation	**EI 90 C/U**

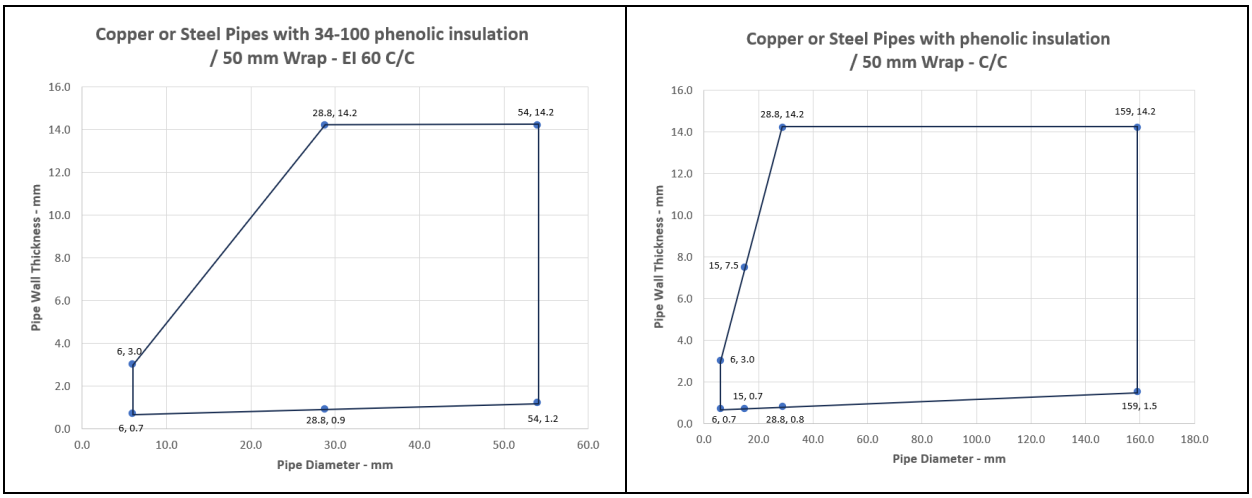

Steel Pipes with Phenolic Foam Insulation - C/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
28.8, 14.2
273, 14.2
16, 8.0
273, 6.35
16, 1.0
28.8, 1.3


Mild or Stainless Steel Pipes 40-165 / 13-32 mm
Elastomeric Insulation / 50 mm wrap - E 120, EI 60 U/U
Pipe Wall Thickness - mm
Pipe Diameter - mm


Mild or Stainless Steel Pipes 40-324 / 13-50 mm
Elastomeric Insulation / 50 mm wrap - EI 90 C/U
Pipe Wall Thickness - mm
Pipe Diameter - mm

Services	Wrap	Insulation	Classification
Copper and steel pipe			
6-54 mm diameter/0.7-1.2 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	13-25 mm elastomeric insulation minimum class B-s3, d0 or PE Foam insulation (LS)	**E 120 C/C, EI 60 C/C**
15 mm diameter/0.7 mm wall	50 x 1.8 mm Gyproc Pipe Wrap fitted to both sides of the wall	15 mm phenolic insulation (CS)	**E 120 C/C, EI 90 C/C**
6-54 mm diameter/0.7-14.2 mm wall*		34-100 mm phenolic insulation (CS)	**EI 60 C/C**
55-159 mm diameter/0.7-14.2 mm wall*		100 mm phenolic insulation (CS)	**EI 60 C/C**
6-159 mm diameter/0.7-14.2 mm wall*		15 mm phenolic insulation (CS)	**E 120 C/C, EI 30 C/C**
6-159 mm diameter/0.7-14.2 mm wall*		16-99 mm phenolic insulation (CS)	**E 60 C/C, EI 30 C/C**
6-54 mm diameter/0.7-14.2 mm wall*	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	40 mm PU foam insulation (CS)	**E 120 C/C, EI 60 C/C**

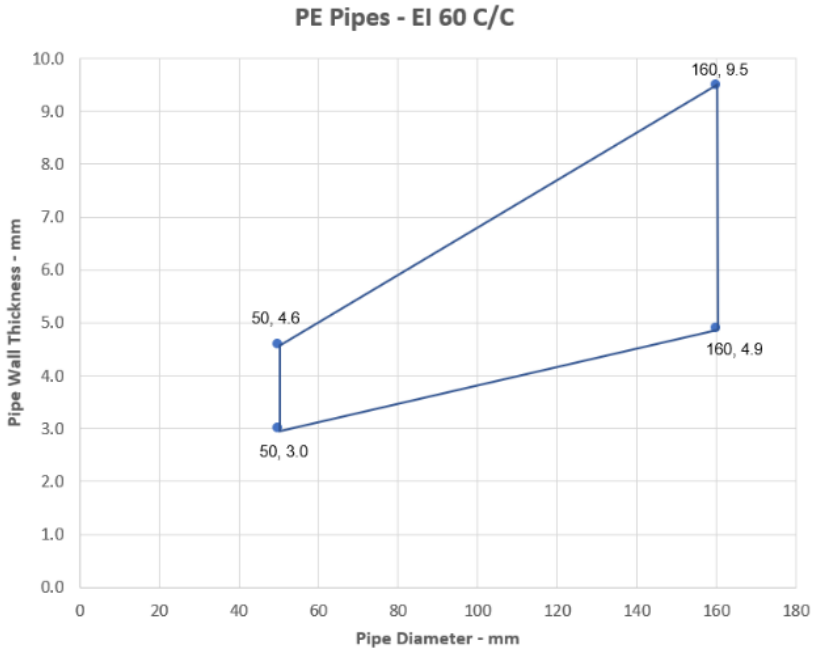
*See below graph for interpolation pipe sizes

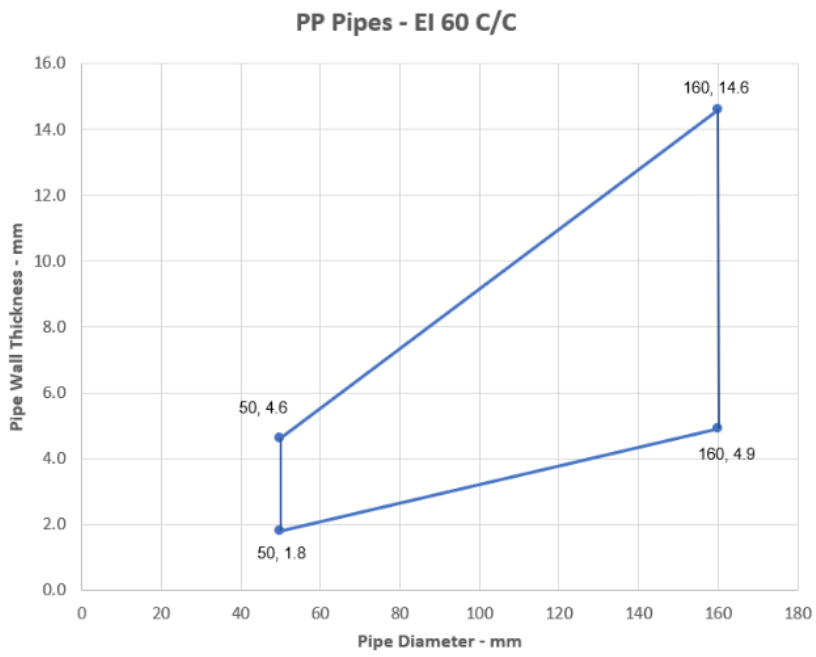


Services	Wrap	Insulation	Classification
Alupex pipe			
16 mm diameter/2.25 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	9-25 mm elastomeric insulation minimum class B-s3, d0 or PE Foam insulation	**EI 120 C/C**
20 mm diameter/2.5 mm wall			
26 mm diameter/3 mm wall			
32 mm diameter/3 mm wall			
40 mm diameter/3.5 mm wall			
50 mm diameter/4 mm wall			
63 mm diameter/4.5 mm wall			
75 mm diameter/4.7 mm wall			
25 mm diameter/2.5 mm wall		13 mm polyethylene foam with plastic sheaving	**E 90 C/C, EI 60 C/C**

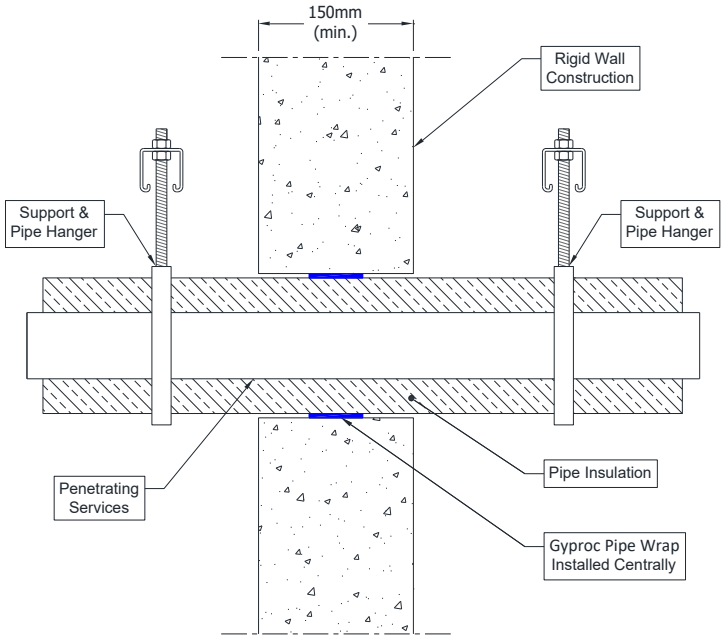
Services	Outer diameter including insulation	Pipe wrap	Pipe insulation	Classification
PE pipe according to EN 1519-1, EN 12201-2 and EN 12006-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1				
Maximum 160 mm diameter pipe*	Maximum 68 mm diameter	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	9-50 mm Elastomeric insulation minimum class B-s3, d0 or PE Foam insulation	**EI 60 C/C**
	Maximum 178 mm diameter	50 x 10.8 mm Gyproc Pipe Wrap fitted to both sides of the wall		
	Maximum 260 mm diameter	50 x 18.0 mm Gyproc Pipe Wrap fitted to both sides of the wall		
PP pipe according to EN 1852-1: 2009				
Maximum 160 mm diameter pipe*	Maximum 68 mm diameter	50 x 3.6 mm Gyproc Pipe Wrap fitted to both sides of the wall	9-50 mm Elastomeric insulation minimum class B-s3, d0 or PE Foam insulation	**EI 60 C/C**
	Maximum 178 mm diameter	50 x 10.8 mm Gyproc Pipe Wrap fitted to both sides of the wall		
	Maximum 260 mm diameter	50 x 18.0 mm Gyproc Pipe Wrap fitted to both sides of the wall		

*See below graph for interpolation pipe sizes


PE Pipes - EI 60 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 9.5
50, 4.6
160, 4.9
50, 3.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0
20
40
60
80
100
120
140
160
180


PP Pipes - EI 60 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 14.6
50, 4.6
160, 4.9
50, 1.8
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0
20
40
60
80
100
120
140
160
180

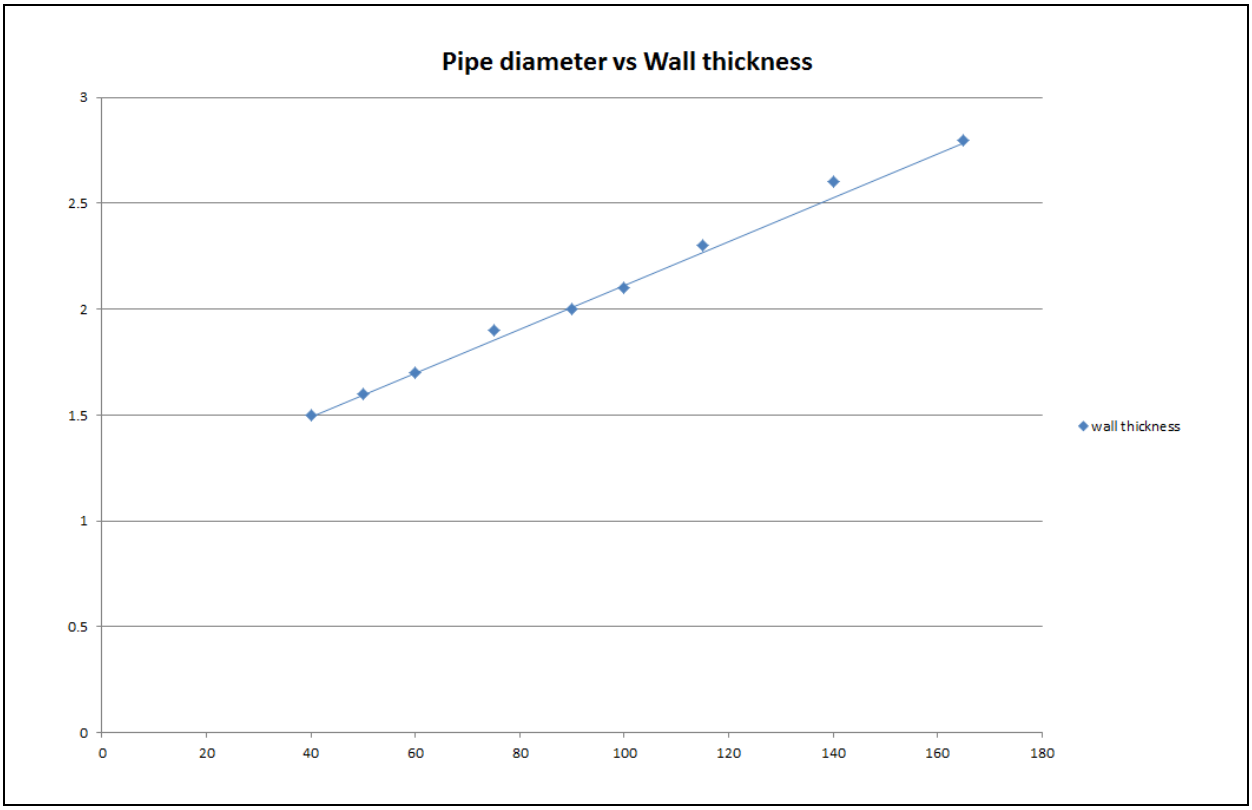
A.1.5 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: CS (Continuous Sustained) insulated metallic pipes with Gyproc Pipe Wraps fitted around the pipe insulation, cast or friction fitted within the wall. Minimum separation and maximum aperture according to 2.4).
Construction details: 

A.1.5.1 Penetration seal with pipes

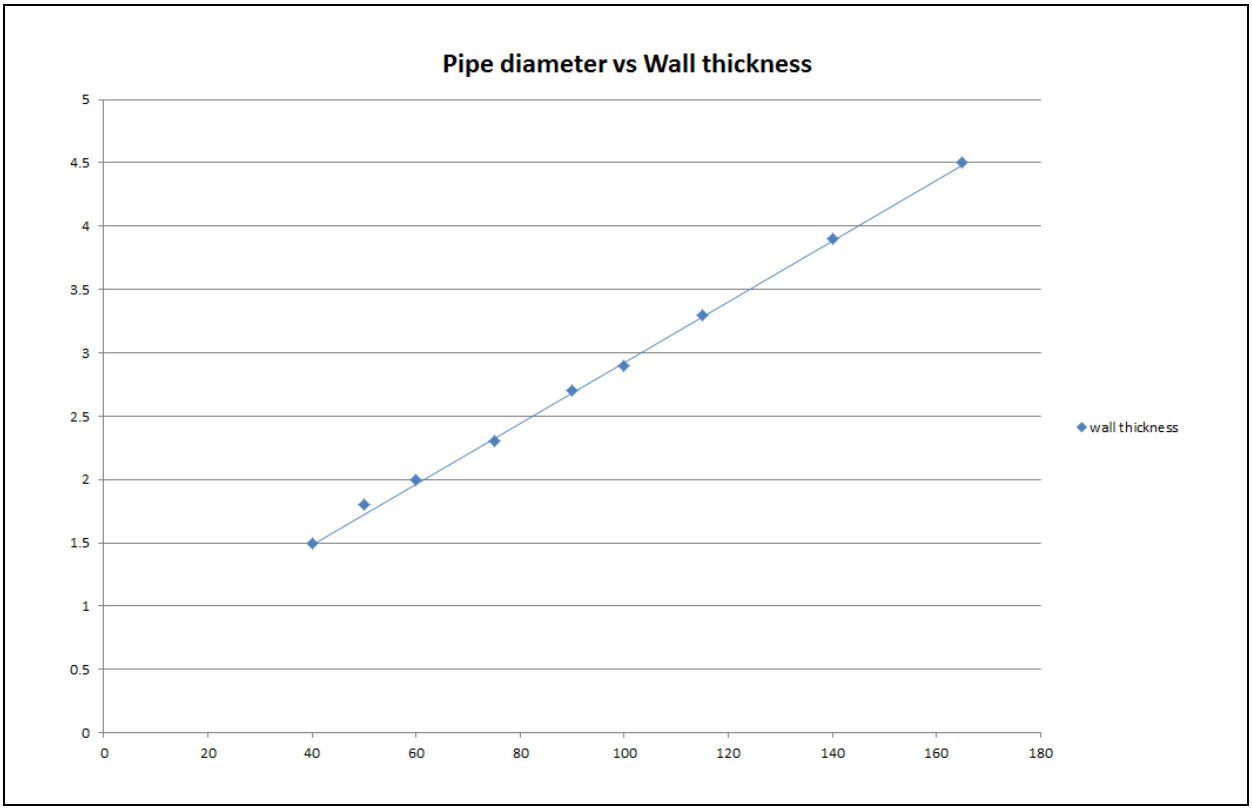
Services	Wrap	Insulation	Classification
Mild or stainless steel pipes			
40 mm diameter/1.5-14.2 mm wall	1 off 50 x 3.6mm Gyproc Pipe Wrap, fitted central	13 mm Elastomeric insulation minimum class B-s3,d0	**EI 240 C/U**
Up to 40 mm diameter/1-14.2 mm wall	1 off 50 x 1.8mm Gyproc Pipe Wrap, fitted central		**EI 120 U/U**
40 mm diameter/1.5-14.2 mm wall*	1 off 50 x 1.8mm Gyproc Pipe Wrap, fitted central	13 -19 mm Elastomeric insulation minimum class B-s3,d0	**E 240 C/U, EI 60 C/U**
50 mm diameter/1.6-14.2 mm wall*			
60 mm diameter/1.7-14.2 mm wall*			
75 mm diameter/1.9-14.2 mm wall*			
90 mm diameter/2-14.2 mm wall*			
100 mm diameter/2.1-14.2 mm wall*			
115 mm diameter/2.3-14.2 mm wall*			
140 mm diameter/2.6-14.2 mm wall*			
165 mm diameter/2.8-14.2 mm wall*			

* Typical pipe diameters shown, see below graph for intermediate sizes



Services Mild or stainless steel pipes	Wrap	Insulation	Classification
40 mm diameter/1.5-14.2 mm wall*	1 off 50 x 3.6mm Gyproc Pipe Wrap, fitted central	13-25 mm Elastomeric insulation minimum class B-s3,d0	**E 180 C/U, EI 60 C/U**
50 mm diameter/1.8-14.2 mm wall*			
60 mm diameter/2-14.2 mm wall*			
75 mm diameter/2.3-14.2 mm wall*			
90 mm diameter/2.7-14.2 mm wall*			
100 mm diameter/2.9-14.2 mm wall*			
115 mm diameter/3.3-14.2 mm wall*			
140 mm diameter/3.9-14.2 mm wall*			
165 mm diameter/4.5-14.2 mm wall*			

* Typical pipe diameters shown, see below graph for intermediate sizes

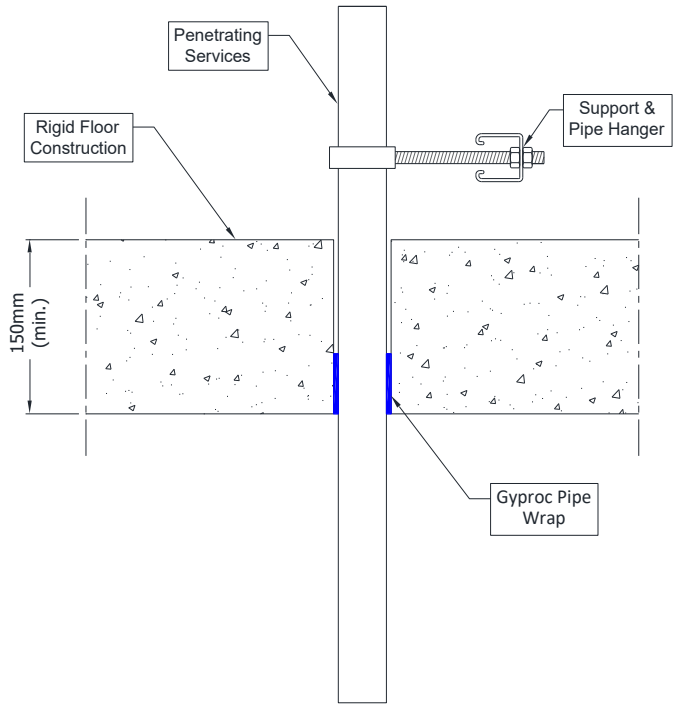

Pipe diameter vs Wall thickness
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
20
40
60
80
100
120
140
160
180
wall thickness

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

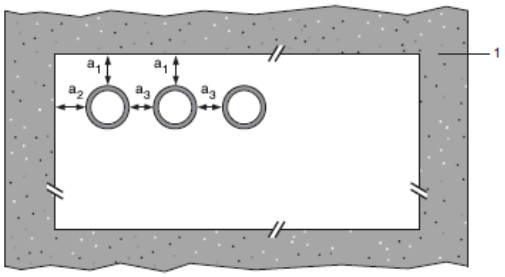
A.2.1 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: Plastic pipes with Gyproc Pipe Wraps fitted around the pipe, cast or friction fitted within the floor. Minimum separation and maximum aperture according to 2.4).

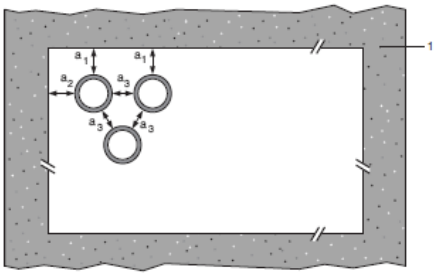
Construction details:



Configuration 1:



Configuration 2:



Key

1 Supporting construction
a1 Pipe / top edge of seal separation
a2 Pipe / side edge of seal separation
a3 Pipe / pipe separation

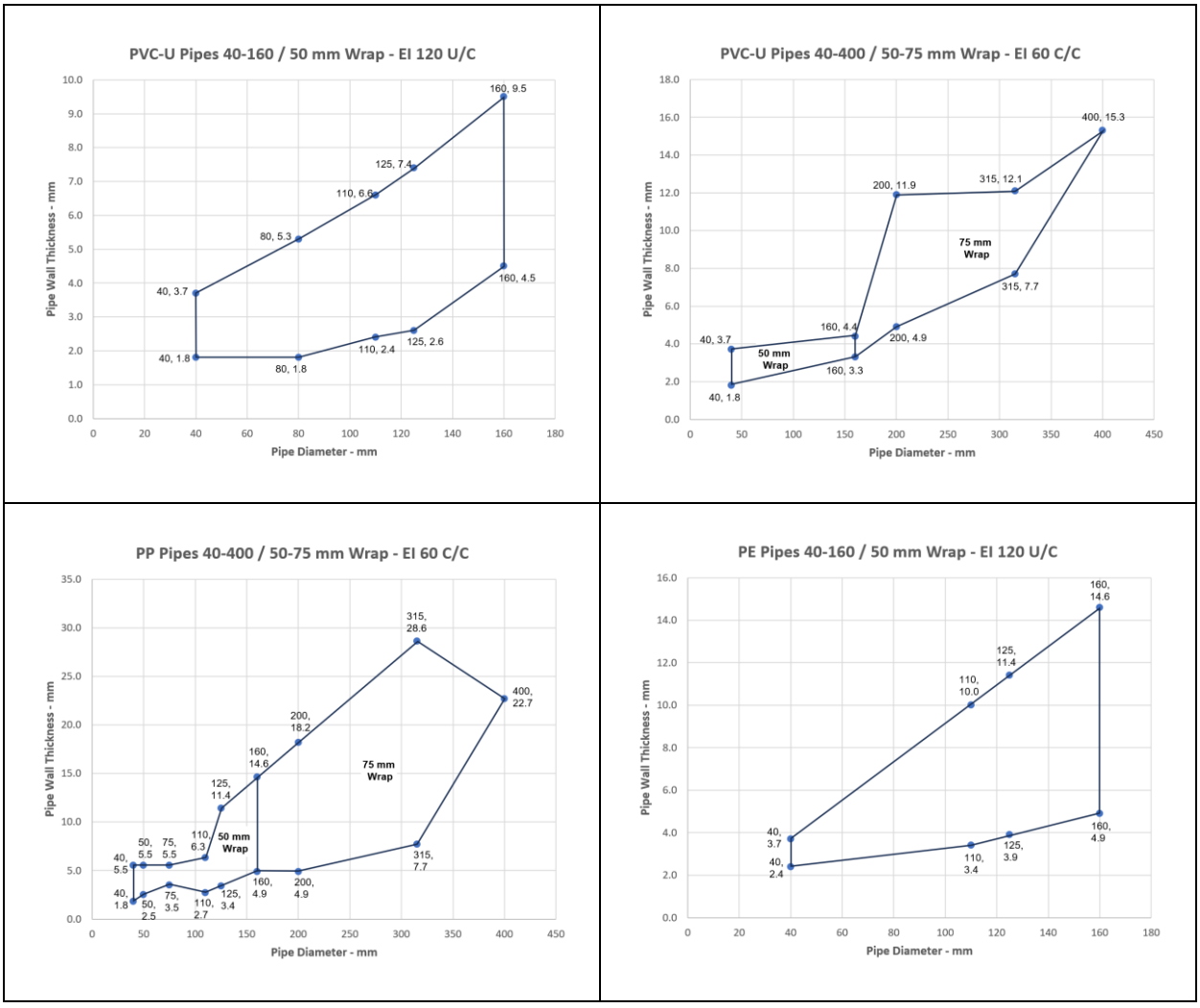
A.2.1.1 Penetration seal with pipes

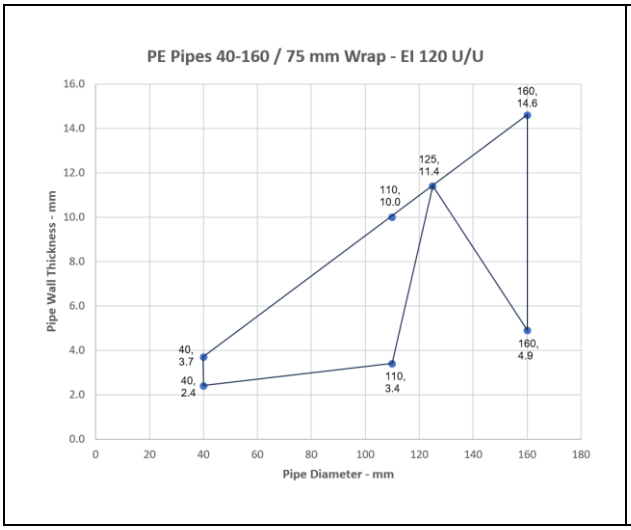
Services	Wrap	Maximum aperture	Classification
PVC-U pipes according to EN 1329-1, EN 1452-1 and EN 1453-1, PVC-C according to EN 1566-1			
Up to 40 mm diameter / 1.8-3.7 mm wall*	50 x 1.8 mm	As section 2. 4)	**E 180 U/U, EI 120 U/U**
Up to 80 mm diameter / 1.8-5.3 mm wall*	50 x 3.6 mm		**EI 240 U/C**
Up to 110 mm diameter / 2.4-6.6 mm wall*	50 x 3.6 mm		**EI 240 U/C**
Up to 125 mm diameter / 4.8-7.4 mm wall*	50 x 7.2 mm		**EI 60 U/U**
Up to 125 mm diameter / 2.6-7.4 mm wall*	50 x 7.2 mm		**EI 120 U/C**
Up to 160 mm diameter / 9.5 mm wall*	75 x 10.8 mm		**E 120 U/U, EI 30 U/U**
Up to 160 mm diameter / 3.2 mm wall	50 x 10.8 mm		**EI 120 U/C**
Up to 160 mm diameter / 3.3-4.4 mm wall	50 x 10.8 mm		**EI 90 U/C**
Up to 160 mm diameter / 4.5-9.5 mm wall*	50 x 10.8 mm		**EI 120 U/C**
Up to 160 mm diameter / 3.3-4.4 mm wall*	50 x 10.8 mm		**EI 120 C/C**
Up to 160 mm diameter / 4.5 mm wall	50 x 10.8 mm		**EI 240 C/C**
Up to 200 mm diameter / 4.9-11.9 mm wall*	75 x 10.8 mm		**EI 120 C/C**
Up to 315 mm diameter / 7.7-12.1 mm wall*	75 x 18.0 mm		**EI 90 C/C**
Up to 400 mm diameter / 15.3 mm wall*	75 x 28.8 mm		**EI 60 C/C**
Up to 110 mm diameter bundles containing pipes up to 20 mm diameter/ 1.0-1.5 mm wall, with or without up to 14 mm Ø cables (may be combined with PP and PE conduits)	50 x 3.6 mm		**E 90 U/U, EI 60 U/U**
Up to 110 mm diameter/ 2.4-6.6 mm wall, containing up to 90mm Ø bundle of up to 14 mm Ø cables*	50 x 3.6 mm		**EI 120 U/C**
PP pipes according to EN 1451-1			
Up to 40 mm diameter /1.8-5.5 mm wall*	50 x 1.8 mm	As section 2. 4)	**EI 120 U/U**
Up to 50 mm diameter /2.5-5.5 mm wall*	50 x 3.6 mm		**EI 240 C/C**
Up to 75 mm diameter /3.5-5.5 mm wall*	50 x 3.6 mm		**EI 240 C/C**
Up to 110 mm diameter /2.7-6.3 mm wall	50 x 3.6 mm		**EI 240 U/C**
Up to 125 mm diameter /11.4 mm wall*	50 x 7.2 mm		**EI 240 U/U**
Up to 125 mm diameter /3.4-11.4 mm wall	50 x 7.2 mm		**EI 240 U/C**
Up to 160 mm diameter /4.9-14.6 mm wall	50 x 10.8 mm		**EI 240 U/C**
Up to 200 mm diameter / 4.9-18.2 mm wall*	75 x 10.8 mm		**EI 240 C/C**
Up to 315 mm diameter / 7.7-28.6 mm wall*	75 x 18.0 mm		**EI 60 C/C**
Up to 400 mm diameter / 22.7 mm wall*	75 x 28.8 mm		**EI 60 C/C**
Up to 110 mm diameter bundles containing pipes up to 20 mm diameter/ 1.9 mm wall, with or without up to 14 mm Ø cables (may be combined with PVC and PE conduits)	50 x 3.6 mm		**E 90 U/U, EI 60 U/U**
Up to 110 mm diameter/ 3.4-6.3 mm wall, containing up to 90mm Ø bundle of up to 14 mm Ø cables	50 x 3.6 mm		**EI 60 U/C**

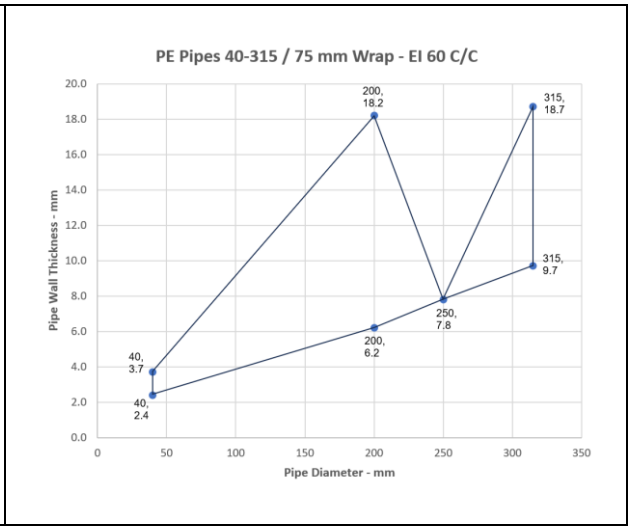
* Typical pipe diameters shown, see below graph for intermediate sizes

Services	Wrap	Maximum aperture	Classification
PE pipes according to EN 1519-1, EN 12201-2 and EN 12666-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1			
Up to 40 mm diameter / 2.4-3.7 mm wall*	50 x 1.8 mm	As section 2. 4)	**EI 240 U/U**
Up to 110 mm diameter / 3.4-10.0 mm wall*	50 x 3.6 mm		**EI 120 U/C**
Up to 110 mm diameter / 3.4-10.0 mm wall*	75 x 5.4 mm		**EI 240 U/U**
Up to 125 mm diameter / 3.9-11.4 mm wall*	50 x 7.2 mm		**EI 240 U/C**
Up to 125 mm diameter / 11.4 mm wall*	50 x 7.2 mm		**EI 240 U/U**
Up to 160 mm diameter / 4.9-14.6 mm wall*	50 x 10.8 mm		**EI 120 U/C**
Up to 160 mm diameter / 4.9-14.6 mm wall*	75 x 7.2 mm		**EI 120 U/U**
Up to 200 mm diameter / 6.2-18.2 mm wall*	75 x 10.8 mm		**EI 120 C/C**
Up to 250 mm diameter / 7.8 mm wall*	75 x 12.6 mm		**EI 180 C/C**
Up to 315 mm diameter / 9.7-18.7 mm wall*	75 x 18.0 mm		**EI 60 C/C**
Up to 110 mm diameter bundles containing pipes up to 32 mm diameter/ 2.0-2.3 mm wall, with or without up to 14 mm Ø cables (may be combined with PVC and PP conduits)	50 x 3.6 mm		**E 90 U/U, EI 60 U/U**
Up to 110 mm diameter/ 2.7-10.0 mm wall, containing up to 90mm Ø bundle of up to 14 mm Ø cables	50 x 3.6 mm		**E 120 U/C, EI 60 U/C**

* Typical pipe diameters shown, see below graph for intermediate sizes



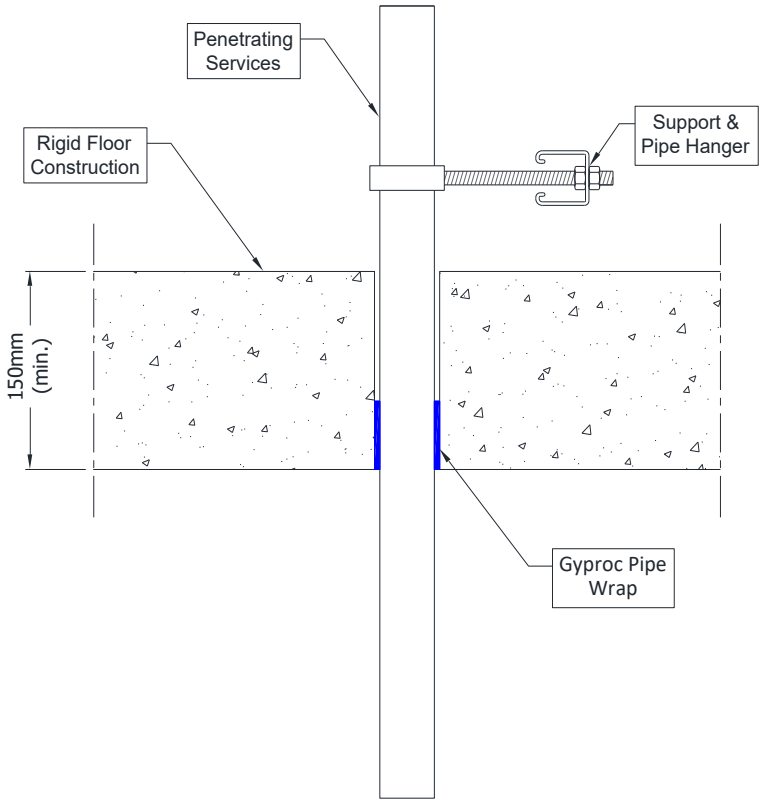

PE Pipes 40-160 / 75 mm Wrap - EI 120 U/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 14.6
125, 11.4
110, 10.0
40, 3.7
40, 2.4
110, 3.4
160, 4.9


PE Pipes 40-315 / 75 mm Wrap - EI 60 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
200, 18.2
315, 18.7
315, 9.7
250, 7.8
200, 6.2
40, 3.7
40, 2.4

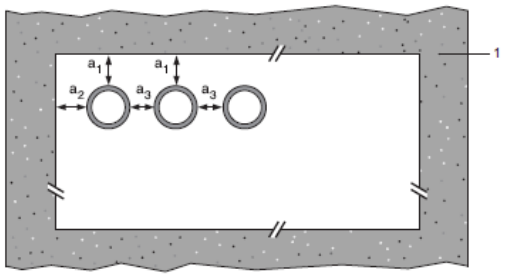
A.2.2 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: Plastic pipes with Gyproc Pipe Wraps fitted around the pipe, cast or friction fitted within the floor. Minimum separation and maximum aperture according to 2.4).

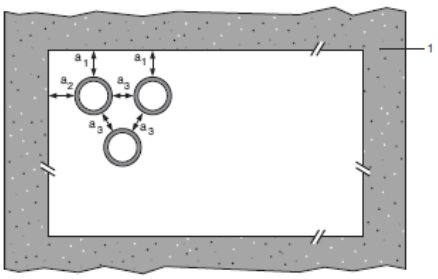
Construction details:



Configuration 1:



Configuration 2:



Key

1 Supporting construction
a1 Pipe / top edge of seal separation
a2 Pipe / side edge of seal separation
a3 Pipe / pipe separation

A.2.2.1

Services	Wrap (soffit side)	Permitted configuration for seal separation	Classification
PEX pipe in pipe systems according to ISO 15875			
Maximum 54 mm diameter/0.4 mm wall thickness (outer pipe), 28 mm diameter/4.0 mm wall thickness (inner pipe)	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 C/C**
Maximum 25 mm diameter/0.6 mm wall thickness (outer pipe), 15 mm diameter/2.5 mm wall thickness (inner pipe), single, or in bundles maximum 50 mm diameter	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 C/C**
Rehau Raupiano Plus PP-DD according to DIN 4102			
40-50 mm diameter/1.8-2.7 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter/2.7 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
125 mm diameter/3.1 mm wall thickness	50 x 7.2 mm (4 x 1.8 layers)	1 & 2	**E 240 U/C, EI 120 U/C**
160 mm diameter/3.9 mm wall thickness	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 120 U/C**
Polo-Kal NG Poloplast PP-MV according to DIN 4102			
32-50 mm diameter/2.0 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/C, EI 180 U/C**
51-110 mm diameter/3.4 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 180 U/C**
125 mm diameter/3.9 mm wall thickness	50 x 7.2 mm (4 x 1.8 layers)	1 & 2	**EI 240 U/C**
160 mm diameter/4.3 mm wall thickness	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**
Aquatherm Green SDR9 MF PP-RP according to ISO 21003			
32 mm diameter/3.6 mm wall thickness	50 x 1.8 mm (1 x 1.8 layer)	1 & 2	**EI 240 C/C**
40-50 mm diameter/5.6-12.3 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 C/C**
63-110 mm diameter/12.3 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 C/C**
Wavin SiTech + PP-M B according to EN 13501-1			
32-50 mm diameter/1.8-3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter/3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
Geberit Silent PP according to DIN 4102			
32-50 mm diameter/1.8-3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter/3.4 mm wall thickness*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
125 mm diameter/3.9 mm wall thickness *	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 120 U/C**
160 mm diameter/4.9 mm wall thickness*	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**

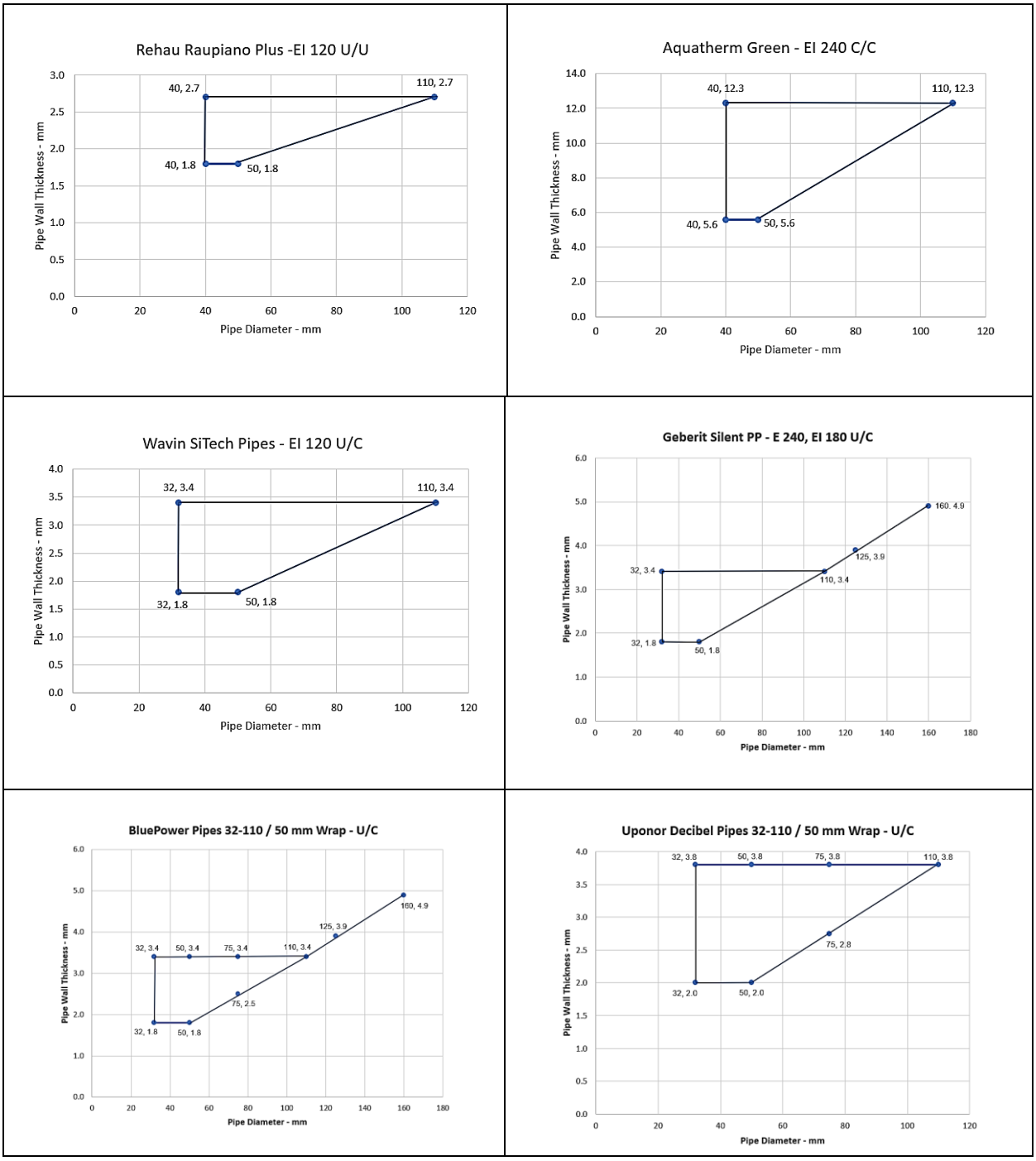
* Typical pipe diameters shown, see below graph for intermediate sizes

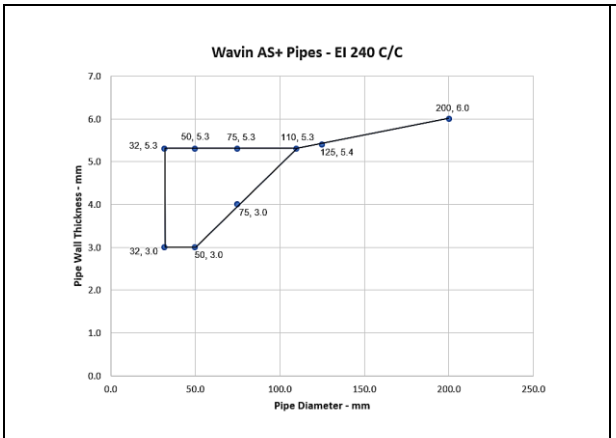
Services	Wrap (soffit side)	Permitted configuration for seal separation	Classification
BluePower Multilayer pipes according to EN 1451-1			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 U/U**
75-110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
125 mm diameter/3.9 mm wall thickness*	50 x 7.2 mm (4 x 1.8 layers)	1 & 2	**EI 120 U/C**
160 mm diameter/4.9 mm wall thickness*	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**
Uponor Decibel pipes according to EN 14366			
32-50 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/U**
75-110 mm diameter*	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
Wavin AS+ pipes according to EN 12056 and DIN 1986-100			
32-50 mm diameter *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/U, EI 60 U/U, EI 240 U/C**
75-110 mm diameter *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 120 U/C, EI 60 U/C, EI 240 C/C**
125-200 mm diameter *	75 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 C/C**
Huliot Ultra Silent pipe according to EN 1451-1 and DIN 1986-100			
32-50 mm diameter/1.8 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/U, EI 60 U/U**
110 mm diameter/3.4 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/C, EI 180 U/C**
125-160 mm diameter *	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**E 240 U/C, EI 180 U/C**
200 mm diameter/6.2 mm wall thickness	75 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 C/C**
Valsir PP3 pipe according to EN 1451-1			
32-50 mm diameter/1.8 mm wall thickness *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/U, EI 120 U/C**
75-90 mm diameter *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
110 mm diameter/2.7 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 U/C**
125-160 mm diameter *	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**
Valsir Blackfire pipe according to EN 1451-1			
32-50 mm diameter/1.8 mm wall thickness *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/U, EI 120 U/C**
75-90 mm diameter *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
110 mm diameter/3.4 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 U/C**
125-160 mm diameter *	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**

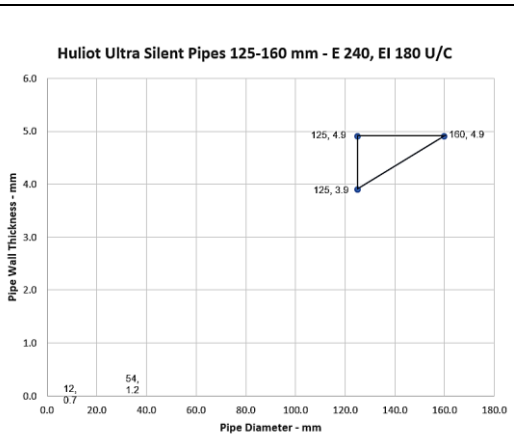
* Typical pipe diameters shown, see below graph for intermediate sizes

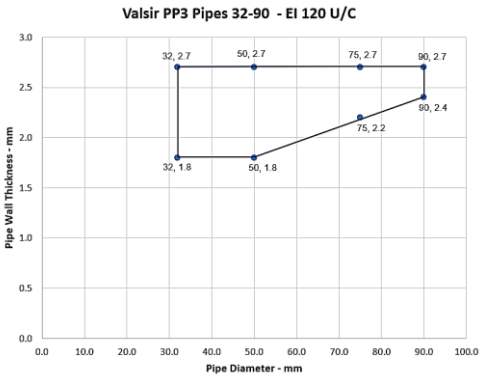
Services	Wrap (soffit side)	Permitted configuration for seal separation	Classification
Valsir Triplus pipe according to EN 1451-1			
32-50 mm diameter/1.8 mm wall thickness *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**E 240 U/U, EI 120 U/C**
75-90 mm diameter *	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 120 U/C**
110 mm diameter/3.4 mm wall thickness	50 x 3.6 mm (2 x 1.8 layers)	1 & 2	**EI 240 U/C**
125-160 mm diameter *	50 x 10.8 mm (6 x 1.8 layers)	1 & 2	**EI 240 U/C**

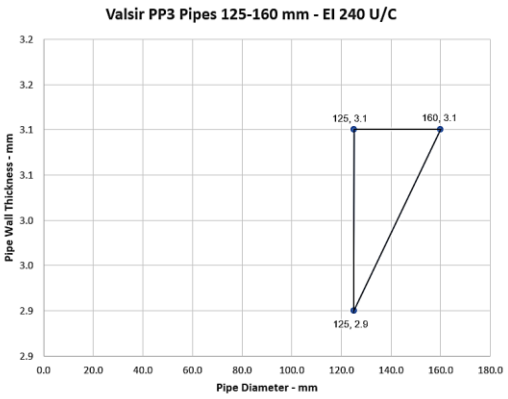
* Typical pipe diameters shown, see below graph for intermediate sizes

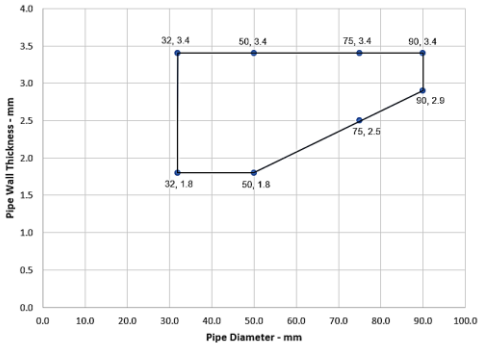


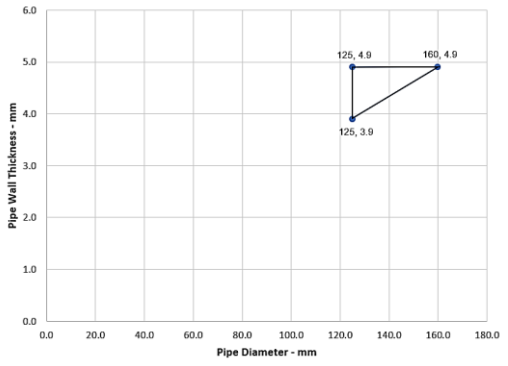

Wavin AS+ Pipes - EI 240 C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 5.3
50, 5.3
75, 5.3
110, 5.3
125, 5.4
200, 6.0
75, 3.0
32, 3.0
50, 3.0

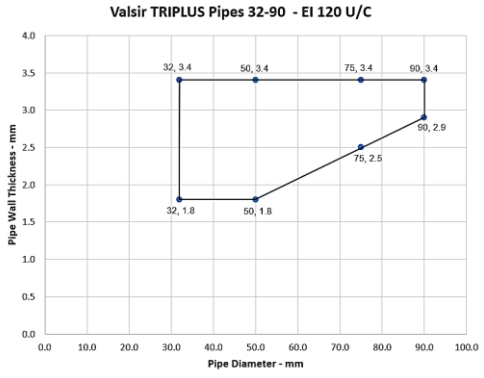

Huliot Ultra Silent Pipes 125-160 mm - E 240, EI 180 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 4.9
160, 4.9
125, 3.9
12, 0.7
54, 1.2

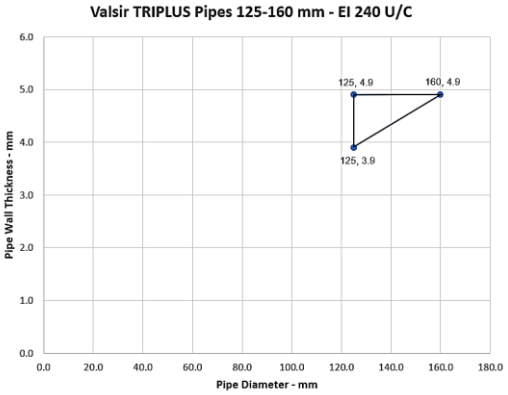

Valsir PP3 Pipes 32-90 - EI 120 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 2.7
50, 2.7
75, 2.7
90, 2.7
90, 2.4
75, 2.2
32, 1.8
50, 1.8


Valsir PP3 Pipes 125-160 mm - EI 240 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 3.1
160, 3.1
125, 2.9


Valsir Blackfire Pipes 32-90 - EI 120 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 3.4
50, 3.4
75, 3.4
90, 3.4
90, 2.9
75, 2.5
32, 1.8
50, 1.8


Valsir Blackfire Pipes 125-160 mm - EI 240 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 4.9
160, 4.9
125, 3.9

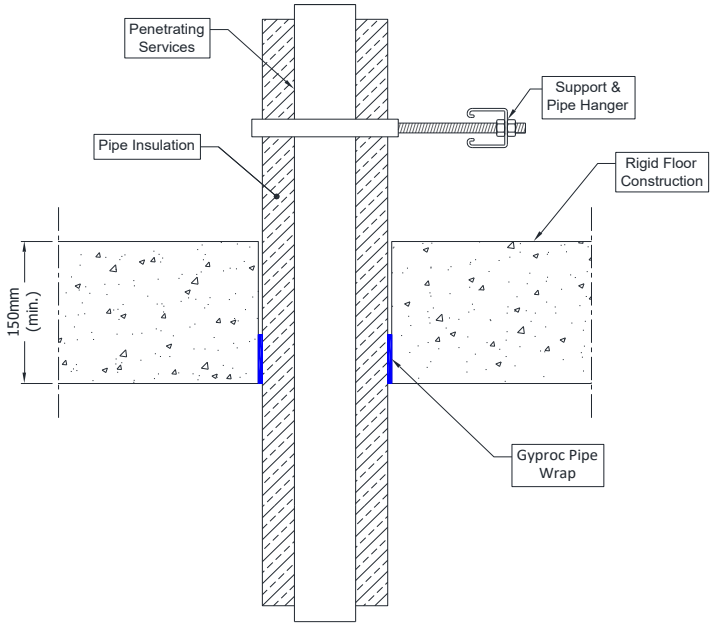

Valsir TRIPLUS Pipes 32-90 - EI 120 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
32, 3.4
50, 3.4
75, 3.4
90, 3.4
90, 2.9
75, 2.5
32, 1.8
50, 1.8


Valsir TRIPLUS Pipes 125-160 mm - EI 240 U/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
125, 4.9
160, 4.9
125, 3.9

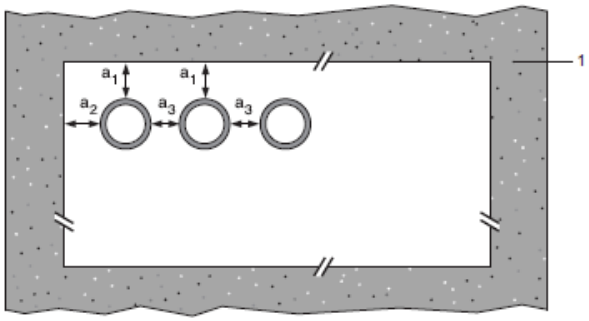
A.2.3 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: CS (Continuous Sustained) insulated metallic pipes with Gyproc Pipe Wraps fitted around the pipe insulation, cast or friction fitted within the floor. Minimum separation and maximum aperture according to 2.4).

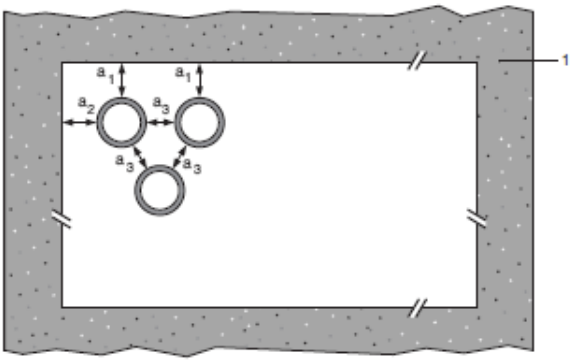
Construction details:



Configuration 1:



Configuration 2:



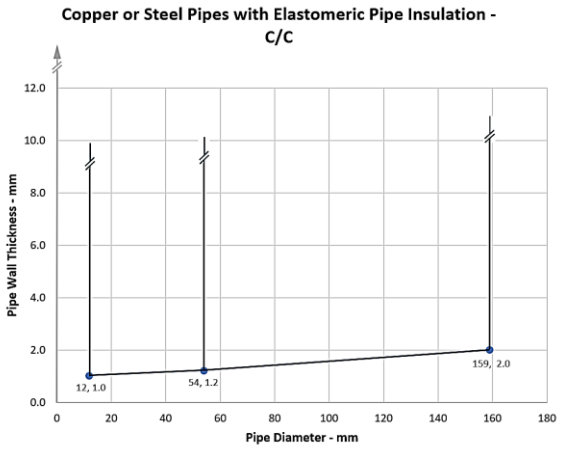
Key

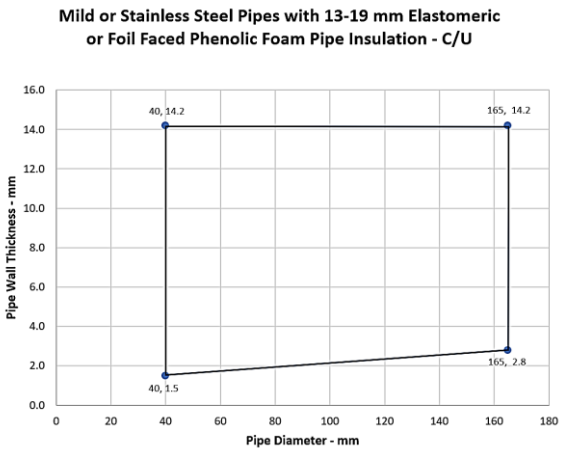
1 Supporting construction
a1 Pipe / top edge of seal separation
a2 Pipe / side edge of seal separation
a3 Pipe / pipe separation

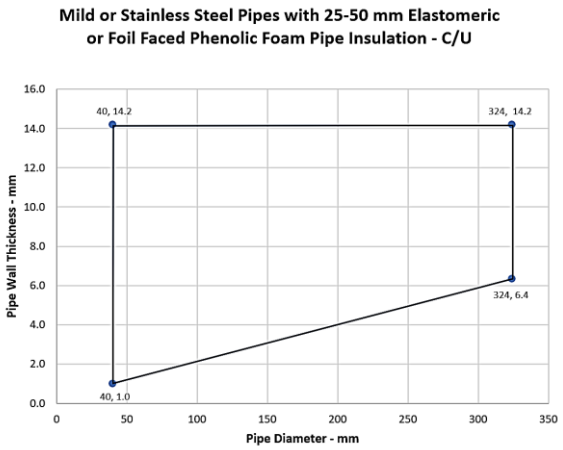
A.2.3.1 Penetration seal with pipes

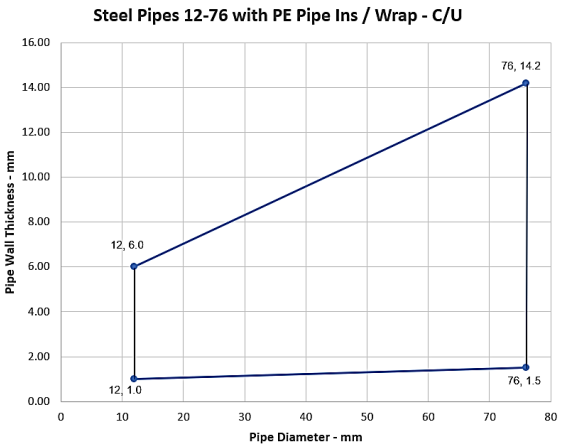
Services	Wrap	Insulation	Classification
Copper and steel pipes			
12 mm diameter/≥1 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to the soffit	9 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 240 C/C**
12-54 mm diameter/≥1 mm wall		19 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**E 180 C/C, EI 120 C/C**
12-54 mm diameter/1 mm wall		9-18 & 20-25 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**E 180 C/C, EI 60 C/C**
12-54 mm diameter/1 mm wall		25 mm foil faced Phenolic Foam insulation	**E 180 C/C, EI 120 C/C**
12-159 mm diameter/≥1 mm wall	50 x 1.8 mm Gyproc Pipe Wrap fitted to the soffit	100 mm Phenolic Foam insulation	**EI 45 C/C**
12-54 mm diameter/1 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to the soffit	40 mm PU Foam insulation	**E 120 C/C, EI 60 C/C**
Mild or stainless steel pipes			
≤40 mm diameter/1.5-14.2 mm wall	50 x 1.8 mm Gyproc Pipe Wrap fitted to the soffit	13 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 180 C/U**
≤165 mm diameter/2.8-14.2 mm wall*		13 -19 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**E 180 C/U, EI 120 C/U**
≤40 mm diameter/1-14.2 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to the soffit	25 mm thick Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 240 C/U**
≤324 mm diameter/1-14.2 mm wall*		25mm thick Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**E 240 C/U** **EI 120 C/U**
≤324 mm diameter/1-14.2 mm wall*	50 x 5.4 mm Gyproc Pipe Wrap fitted to the soffit	25-50mm thick Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 120 C/U**
≤12 mm diameter/1.0 mm wall	50 x 1.8 mm Gyproc Pipe Wrap fitted to the soffit	9 mm thick PE foam insulation	**EI 180 C/U**
≤76 mm diameter/1.5-14.2 mm wall*			**E 180 C/U** **EI 60 C/U**
	50 x 3.6 mm Gyproc Pipe Wrap fitted to the soffit	9-30mm thick PE foam insulation	

* Typical pipe diameters shown, see below graph for intermediate sizes


Copper or Steel Pipes with Elastomeric Pipe Insulation - C/C
Pipe Wall Thickness - mm
Pipe Diameter - mm
12, 1.0
54, 1.2
159, 2.0

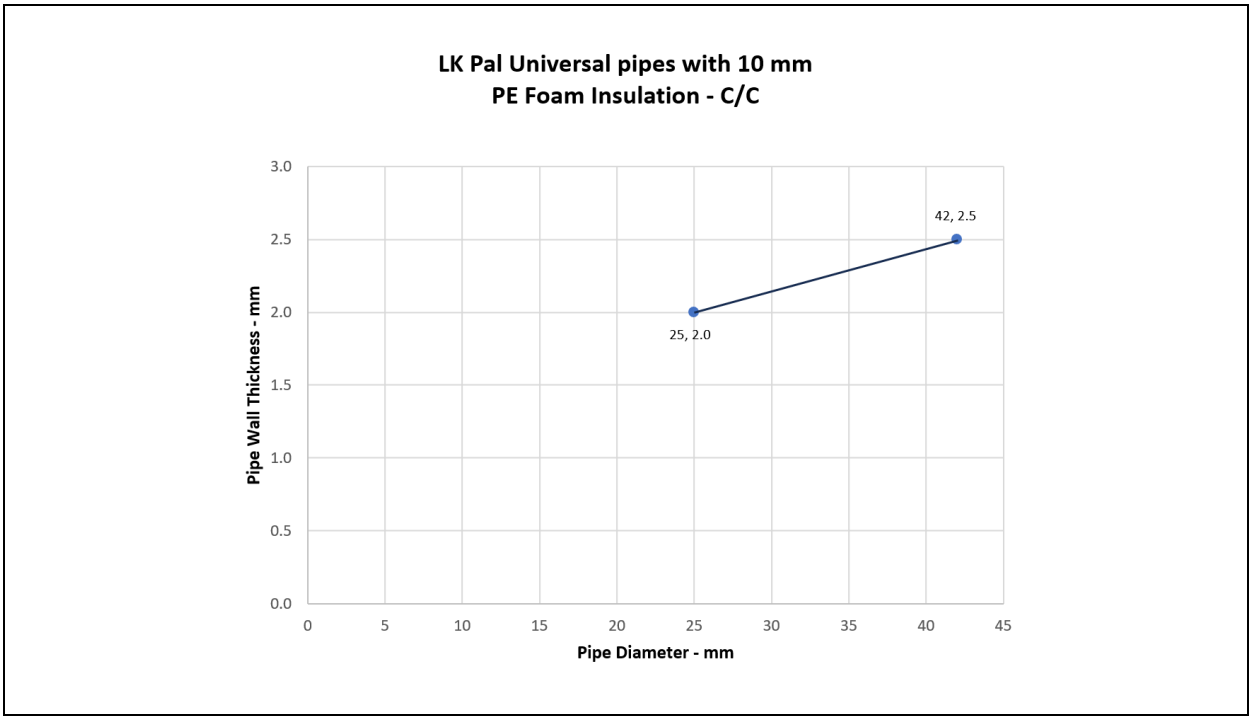

Mild or Stainless Steel Pipes with 13-19 mm Elastomeric or Foil Faced Phenolic Foam Pipe Insulation - C/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
40, 14.2
165, 14.2
40, 1.5
165, 2.8


Mild or Stainless Steel Pipes with 25-50 mm Elastomeric or Foil Faced Phenolic Foam Pipe Insulation - C/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
40, 14.2
324, 14.2
324, 6.4
40, 1.0


Steel Pipes 12-76 with PE Pipe Ins / Wrap - C/U
Pipe Wall Thickness - mm
Pipe Diameter - mm
76, 14.2
12, 6.0
12, 1.0
76, 1.5

Services	Wrap	Insulation	Classification
Alupex pipes			
16 mm diameter/2.25 mm wall	50 x 3.6 mm Gyproc Pipe Wrap fitted to the soffit	9 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 240 C/C**
16 mm diameter/2.25 mm wall		9-13 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**E 240 C/C, EI 180 C/C**
20 mm diameter/2.25 mm wall			
25 mm diameter/2.5 mm wall			
16 mm diameter/2.25 mm wall		9-24 mm Elastomeric insulation minimum class B-s3,d0	**E 120 C/C, EI 90 C/C**
20 mm diameter/2.5 mm wall			
26 mm diameter/3 mm wall			
32 mm diameter/3 mm wall			
40 mm diameter/3.5 mm wall			
50 mm diameter/4 mm wall			
63 mm diameter/4.5 mm wall			
75 mm diameter/4.7 mm wall			
16 mm diameter/2.25 mm wall		9-24 mm foil faced Phenolic Foam insulation	**E 180 C/C, EI 90 C/C**
20 mm diameter/2.5 mm wall			
26 mm diameter/3 mm wall			
32 mm diameter/3 mm wall			
40 mm diameter/3.5 mm wall			
50 mm diameter/4 mm wall			
63 mm diameter/4.5 mm wall			
75 mm diameter/4.7 mm wall			
16 mm diameter/2.25 mm wall		25 mm Elastomeric insulation minimum class B-s3,d0 or foil faced Phenolic Foam insulation	**EI 180 C/C**
20 mm diameter/2.5 mm wall			
26 mm diameter/3 mm wall			
32 mm diameter/3 mm wall			
40 mm diameter/3.5 mm wall			
50 mm diameter/4 mm wall			
63 mm diameter/4.5 mm wall			
75 mm diameter/4.7 mm wall			
Alupex pipe inside a PP conduit e.g. LK Pal Universal pipes with additional PE insulated conduit, PiP Extra			
Outer PP conduit up to 42 mm diameter/2.0-2.5 mm wall with inner alupex pipe up to 32 mm diameter/2.0-3.0 mm wall*	50 x 1.8 mm Gyproc Pipe Wrap fitted to the soffit	10 mm PE foam insulation	**E 240 C/C, EI 120 C/C**

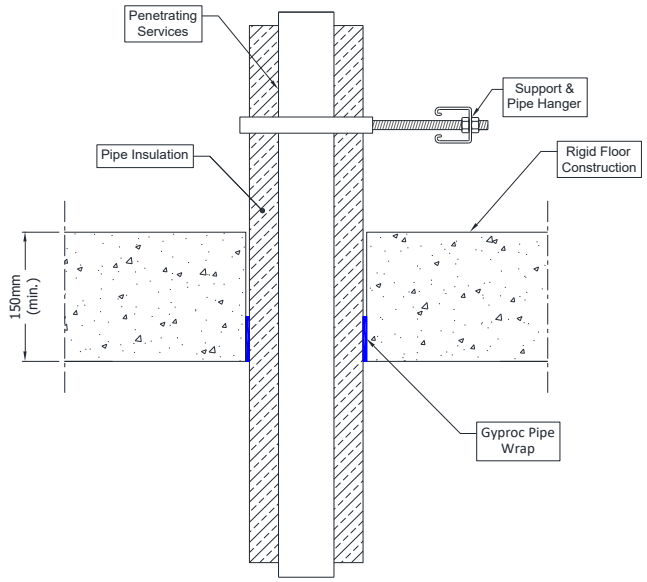
* Typical pipe diameters shown, see below graph for intermediate sizes


LK Pal Universal pipes with 10 mm
PE Foam Insulation - C/C
Pipe Wall Thickness - mm
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
35
40
45
Pipe Diameter - mm
42, 2.5
25, 2.0

A.2.4 Pipe penetration seal with Gyproc Pipe Wrap

Penetration Seal: CS (Continuous Sustained) insulated plastic pipes with Gyproc Pipe Wraps fitted around the pipe insulation, cast or friction fitted within the floor. Minimum separation and maximum aperture according to 2.4).

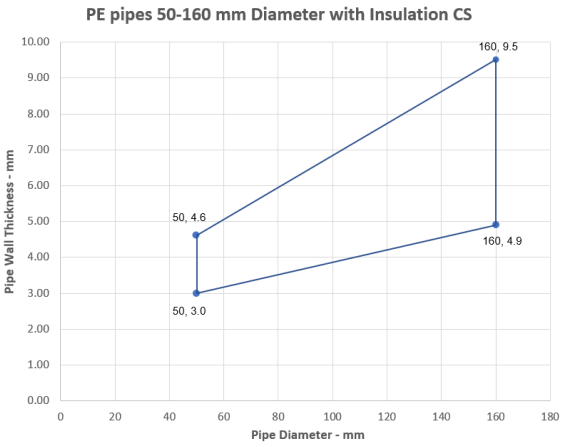
Construction details:

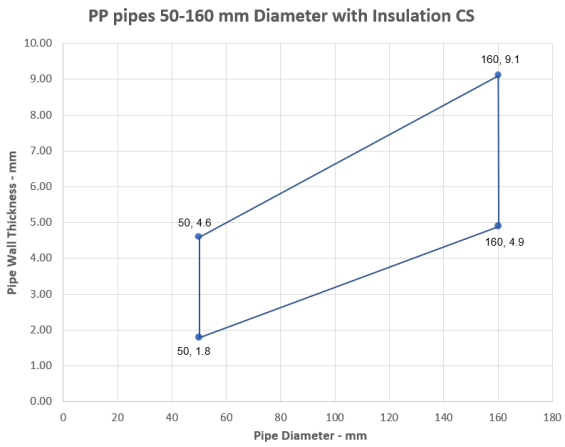


A.2.4.1 Penetration seal with pipes

Services	Outer diameter including insulation	Pipe wrap (soffit side)	Pipe insulation	Classification
PE pipes according to EN 1519-1, EN 12201-2 and EN 12006-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1				
Maximum 160 mm diameter pipe*	Maximum 68 mm diameter	50 x 3.6 mm (2 x 1.8 layers)	9-50 mm Elastomeric insulation minimum class B-s3,d0 or foil faced phenolic foam insulation	**EI 240 C/C**
	Maximum 178 mm diameter	75 x 10.8 mm (6 x 1.8 layers)		
	Maximum 260 mm diameter	75 x 18.0 mm (10 x 1.8 layers)		**EI 120 C/C**
PP pipes according to EN 1852-1: 2009				
Maximum 160 mm diameter pipe*	Maximum 68 mm diameter	50 x 3.6 mm (2 x 1.8 layers)	9-50 mm Elastomeric insulation minimum class B-s3,d0 or foil faced phenolic foam insulation	**E 240 C/C, EI 180 C/C**
	Maximum 178 mm diameter	75 x 10.8 mm (6 x 1.8 layers)		**EI 240 C/C**
	Maximum 260 mm diameter	75 x 18.0 mm (10 x 1.8 layers)		**EI 120 C/C**

*See below graph for interpolation pipe sizes


PE pipes 50-160 mm Diameter with Insulation CS
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 9.5
50, 4.6
160, 4.9
50, 3.0


PP pipes 50-160 mm Diameter with Insulation CS
Pipe Wall Thickness - mm
Pipe Diameter - mm
160, 9.1
50, 4.6
160, 4.9
50, 1.8