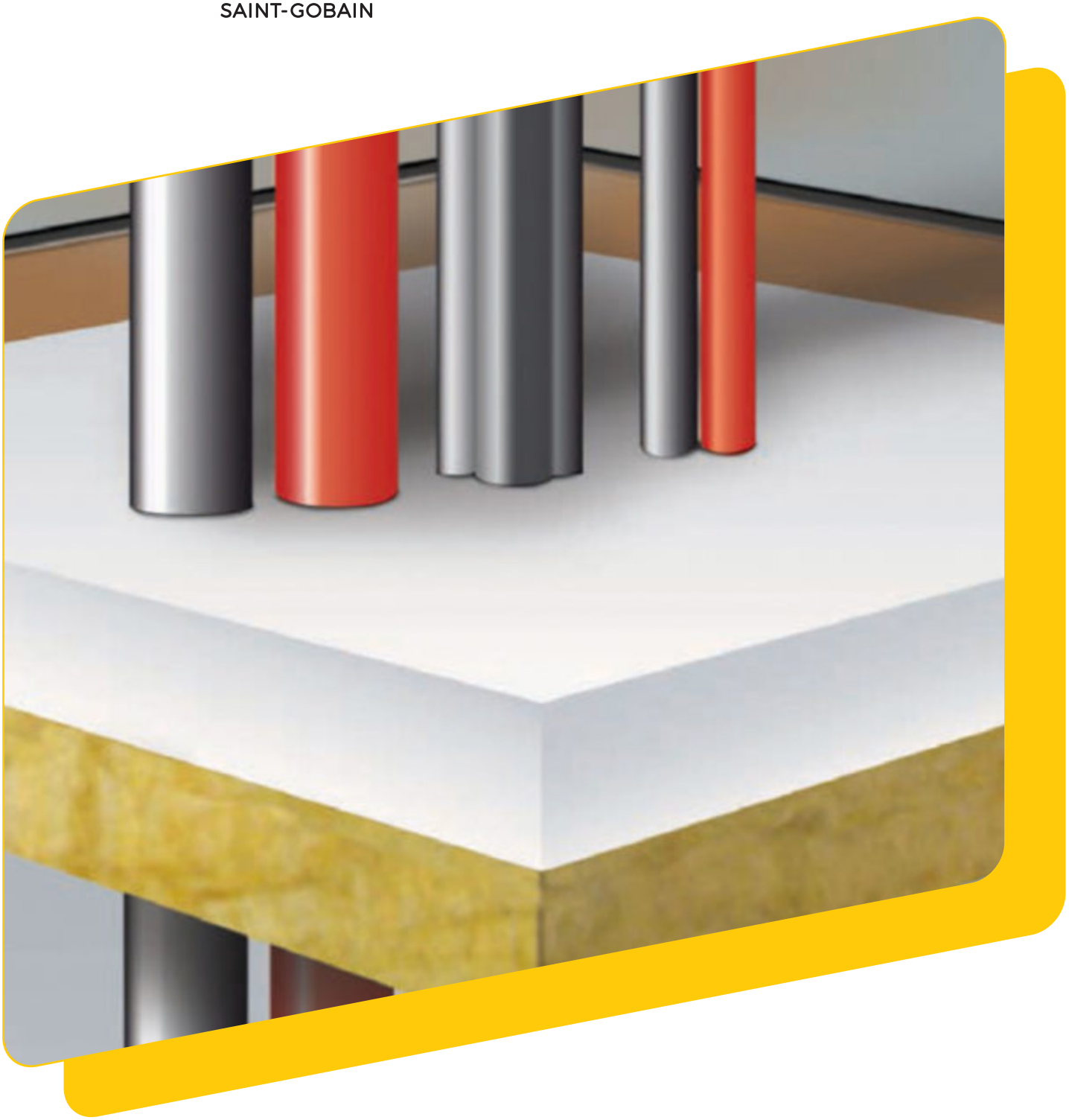
isover
SAINT-GOBAIN



Isover Protect Mortar

Fire stopping & sealing

Installation Instructions

SAINT-GOBAIN

INDEX

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General Guide

Isover Protect Mortar is a dry white powder consisting of inorganic compounds and perlite. When mixed with water, the compounds form a highly thermally insulating fire sealing compound to prevent the spread of fire and smoke through openings in fire rated walls and floors, including openings formed around building service penetrations. Isover Protect Mortar expands approx. 1% by hydraulic action during curing ensuring a very tight seal around the service penetrations and the s urrounding opening apertures.

Minimum separations and limitations: Services can be sealed as specified in the detailed drawings. An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 100 mm. Services should be a minimum of 20 mm from seal edges. Services within the system Isover Protect Mortar seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations, which should be a minimum of 30 mm from other services in the aperture.

Isover Protect Mortar is a dry white powder consisting of inorganic compounds and perlite. When mixed with water, the compounds form a highly thermally insulating fire sealing compound to prevent the spread of fire and smoke through openings in fire rated walls and floors, including openings formed around building service penetrations. Isover Protect Mortar expands approx. 1% by hydraulic action during curing ensuring a very tight seal around the service penetrations and the surrounding opening apertures.

Supporting constructions: Flexible walls must have a minimum thickness of 100 mm and comprise steel studs or timber studs*) lined on both faces with minimum 2 layers of 12.5 mm thick boards. Rigid walls must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 350 kg/m3 (650 kg/m3 in rigid wall details). Rigid floors must have a minimum thickness of 100 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m3. The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period. Services in floors should be supported at maximum 450 mm from the top face. Services in walls should be supported at maximum 270 mm from both faces of the wall.

*) Timber studs: no part of the penetration seal may be closer than 100 mm to a stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

Services: Metallic pipes through the system Isover Protect Mortar seal may be used in all angles between 90° and 45° in all directions.

Where PVC pipes are mentioned, 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.

Installation

1. When sealing flexible walls the mortar should be flush with the surface of the wall on both sides.

2. When sealing rigid constructions, the seal can be positioned to either side of the construction or anywhere in between.

3. When sealing hollow floor slabs or boards, the seal should be level with the soffit side. There must be sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be plugged, with for instance a PU foam, and the whole thickness of the floor should be cast with the mortar.

4. Where top face seals are described, these can also be used in composite floors (e.g., concrete filled, steel trapezoidal decking).

5. An aperture with or without penetrating services, can include a steel sleeve casted or friction fitted within rigid constructions.

6. If the mortar seal is required to be load bearing, please see instructions in the Technical Data Sheet.

7. Where minimum 100 mm depth of mortar is described in the technical drawings, this can be reduced with 50 mm if a 50 mm high 45 ° angled cone made of mortar is added around services. If the reduction reduces the thickness to less than 100 mm, a stone wool shutter board is required, as specified in the technical drawings.

8. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.

9. Any bare metal in contact with the mortar must be protected against corrosion using a suitable primer/protection system.

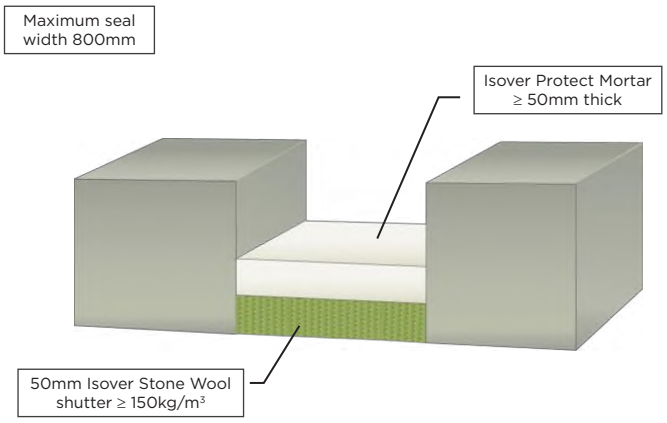
10. Install a stone wool sutter board where it is necessary to achieve the required thickness of mortar (see the technical drawings). Make sure that this achieves a very tight seal – any small openings should be sealed with Isover Protect Acrylic. If a stone wool shutter board is described in the detailed drawings but another shutter is to be used, the mortar can replace the stone wool shutter if the total seal depth is the same or greater. Where a stone wool shutter board is not described, it is optional to use one and it does not need to be removed.

11. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process. For different mix ratios and drying times, please refer to the Technical Data Sheet.

12. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.

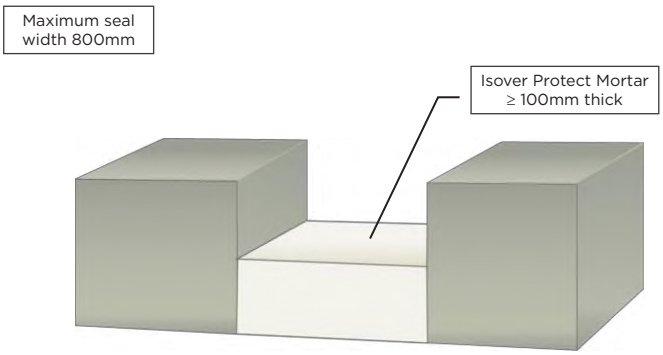
LINEAR SEALS FIRE RESISTANCE EI 180 (E 180)

≥ 100MM RIGID FLOORS



LINEAR SEALS FIRE RESISTANCE EI 240 (E 240)

≥ 100MM RIGID FLOORS



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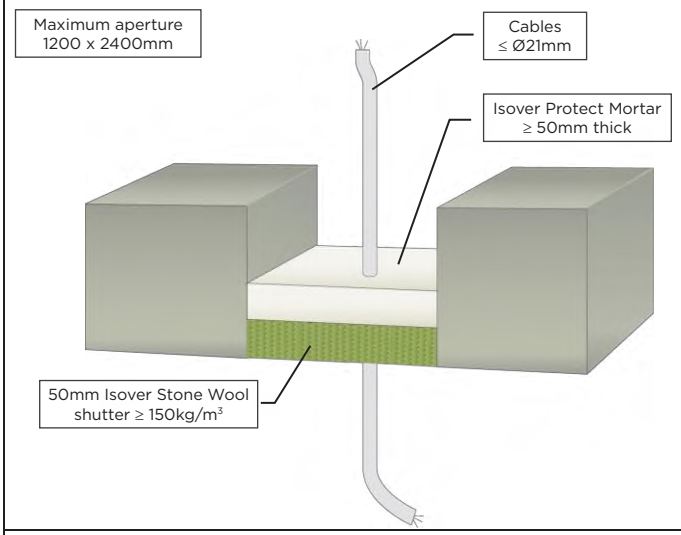
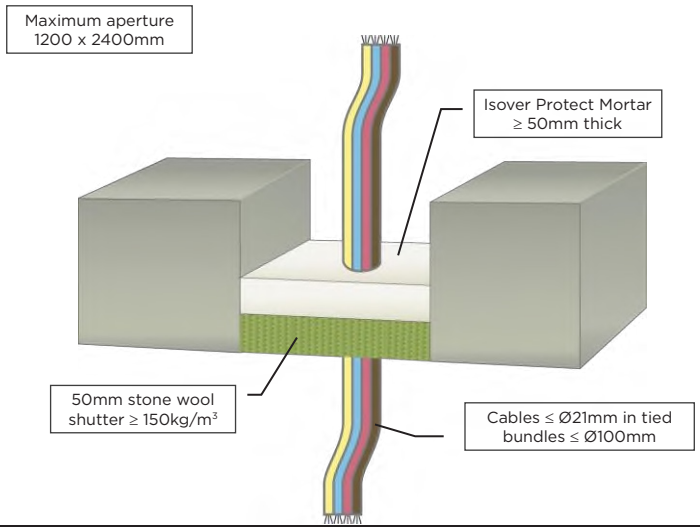


CABLES FIRE RESISTANCE EI 180 (E 180)

≥ 100MM RIGID FLOORS



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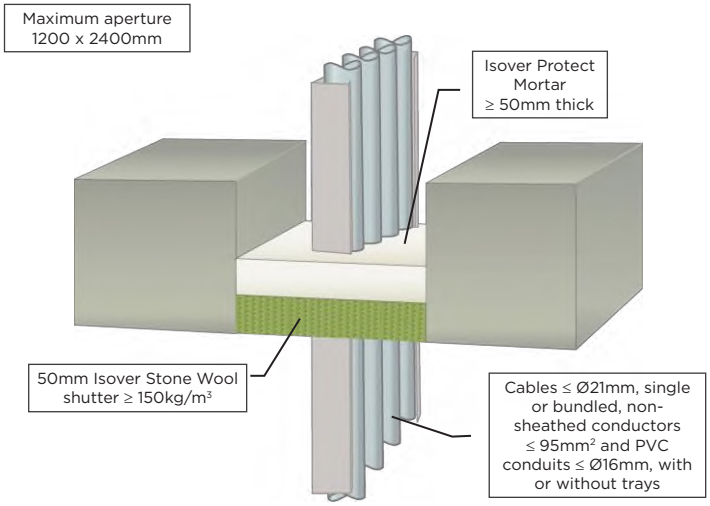

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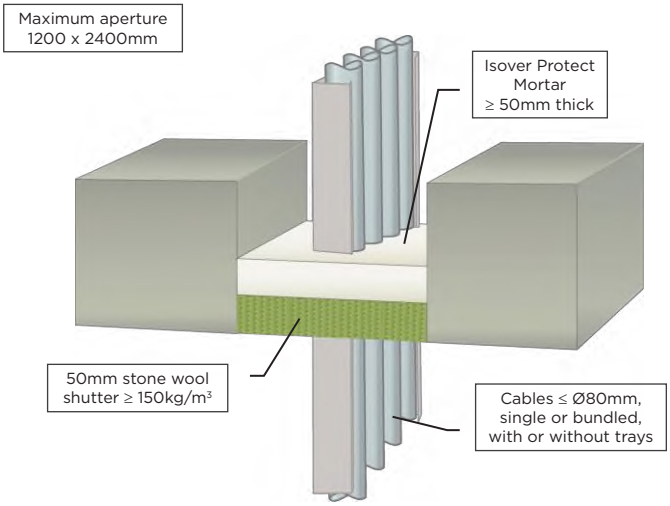

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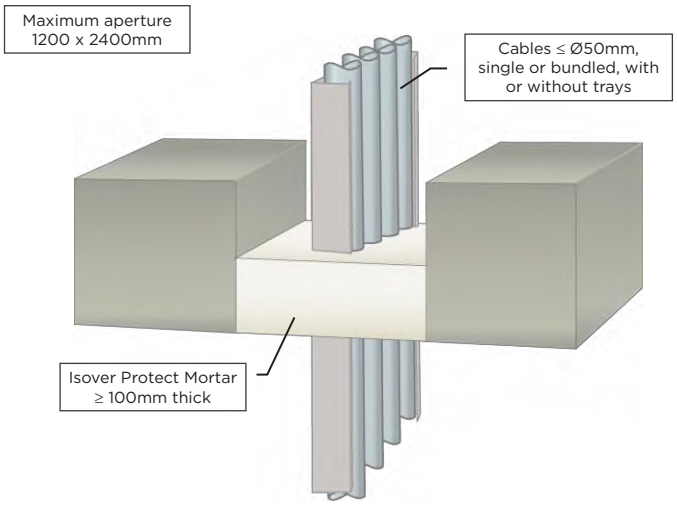

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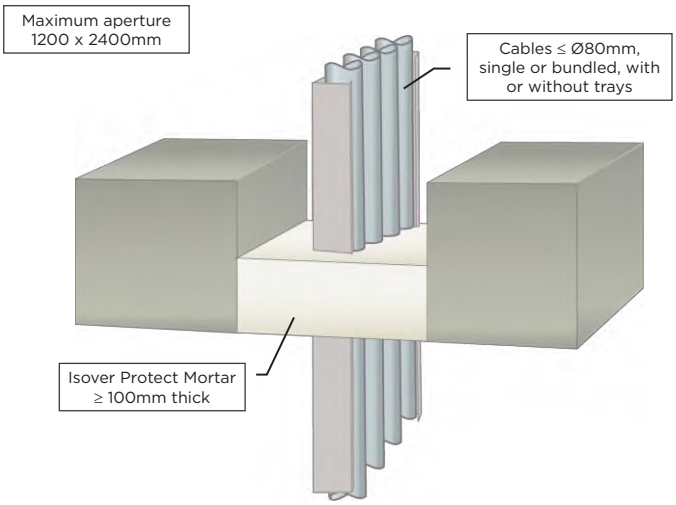

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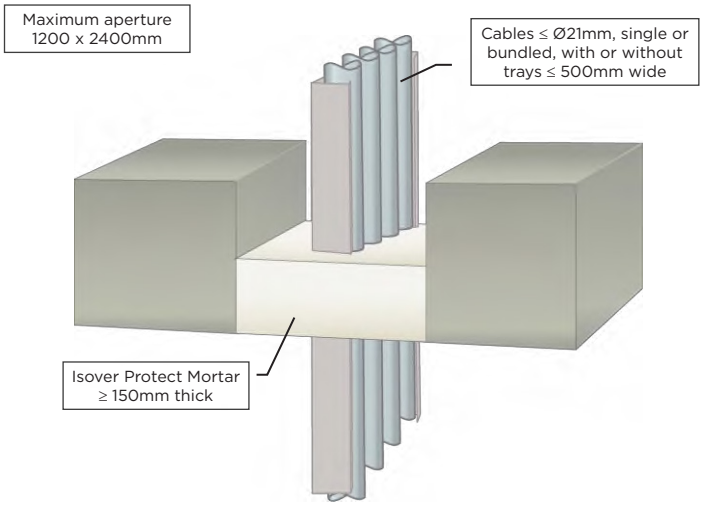

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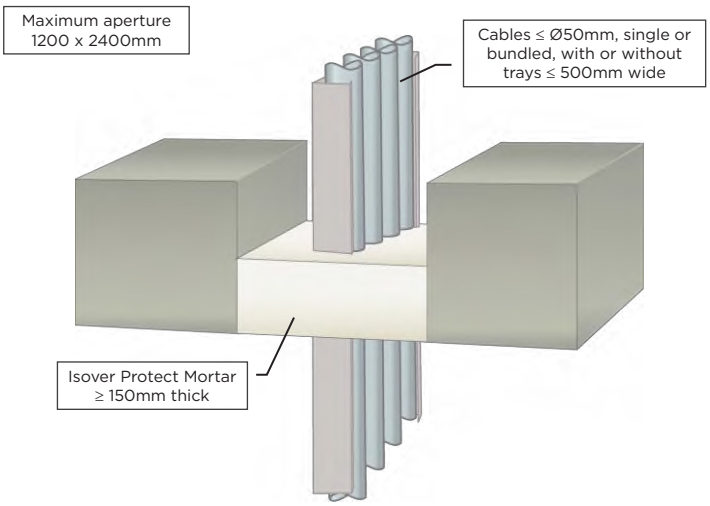

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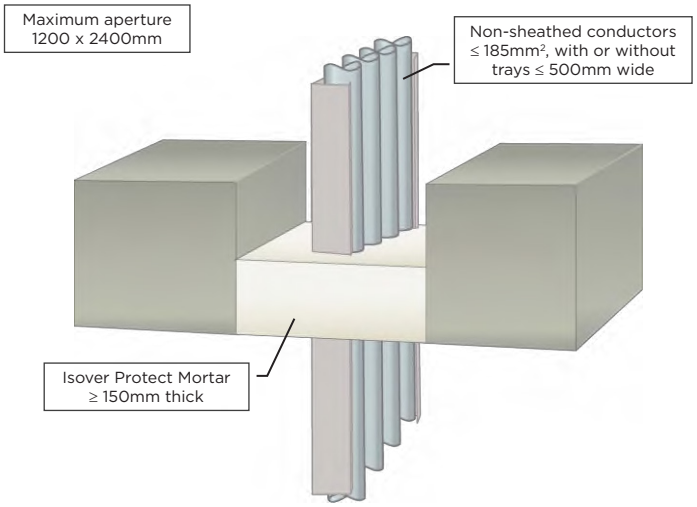

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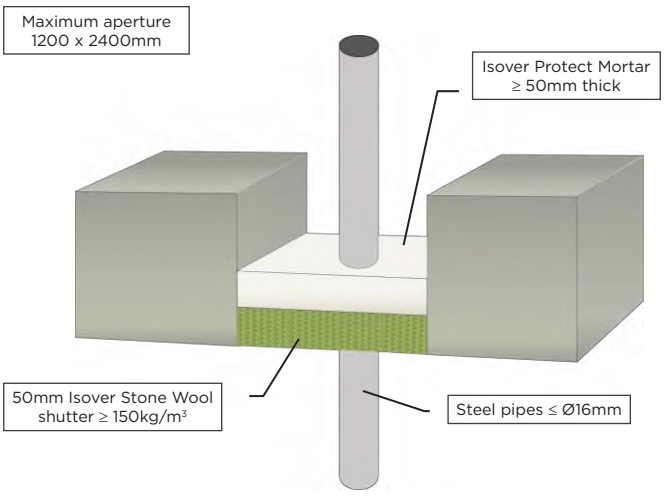

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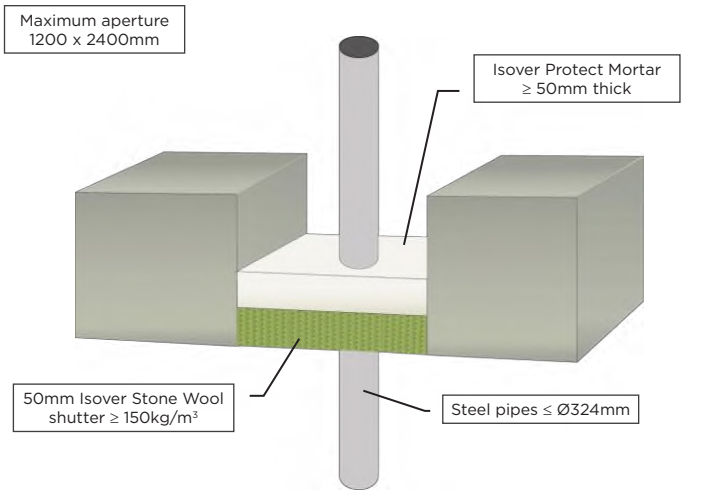

STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 180)

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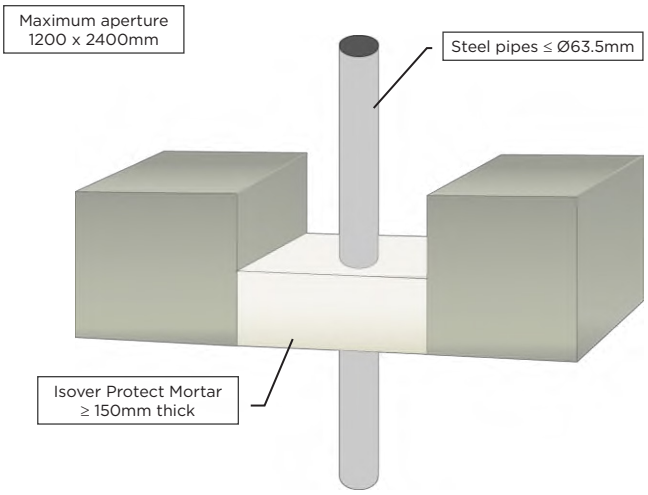

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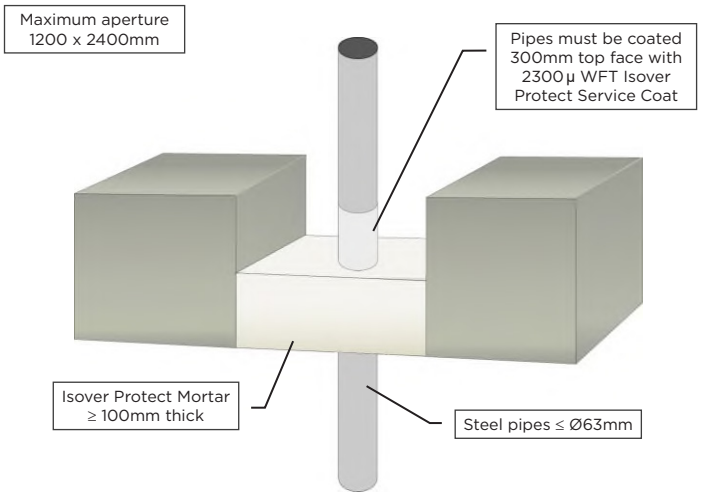

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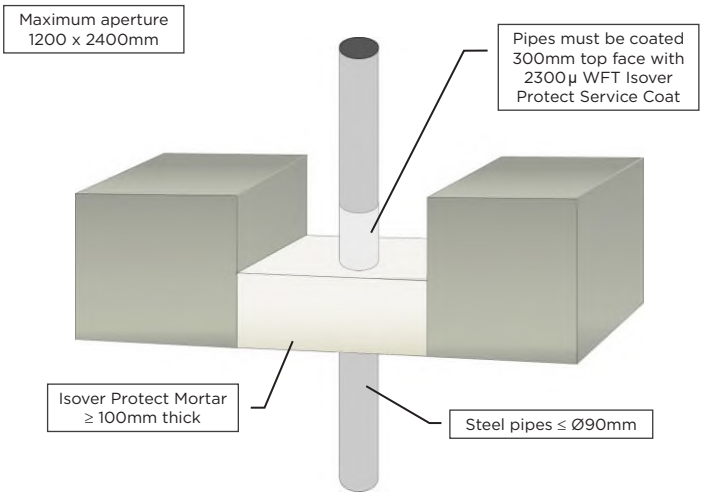

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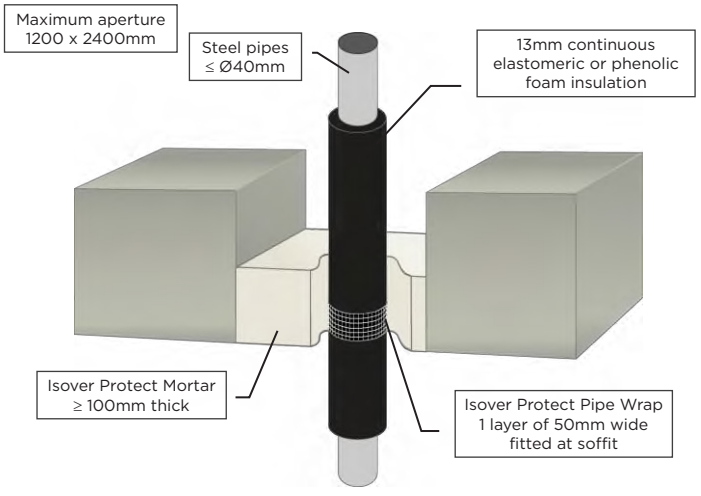

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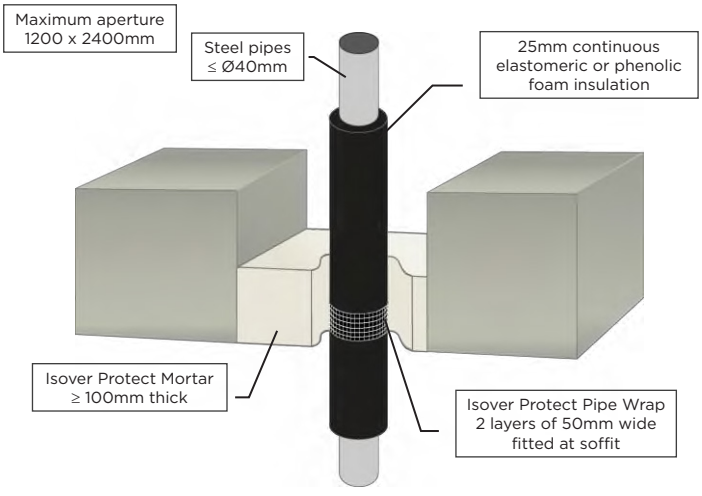

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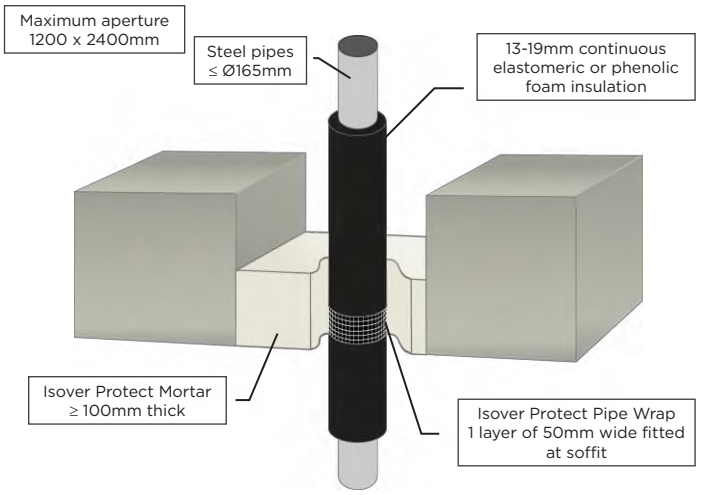

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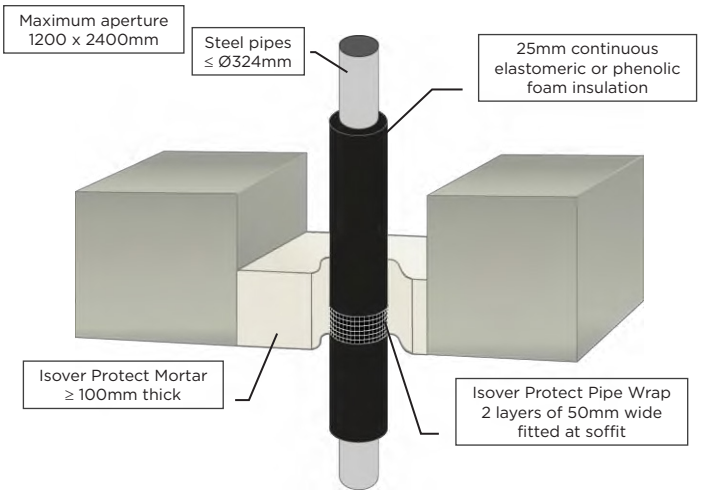

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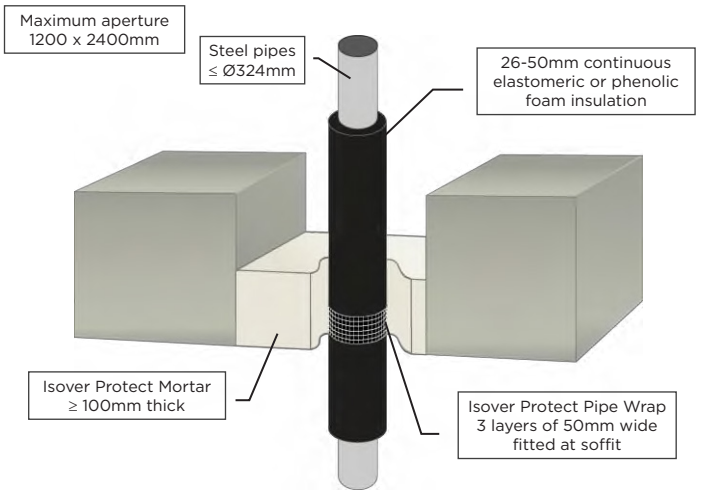

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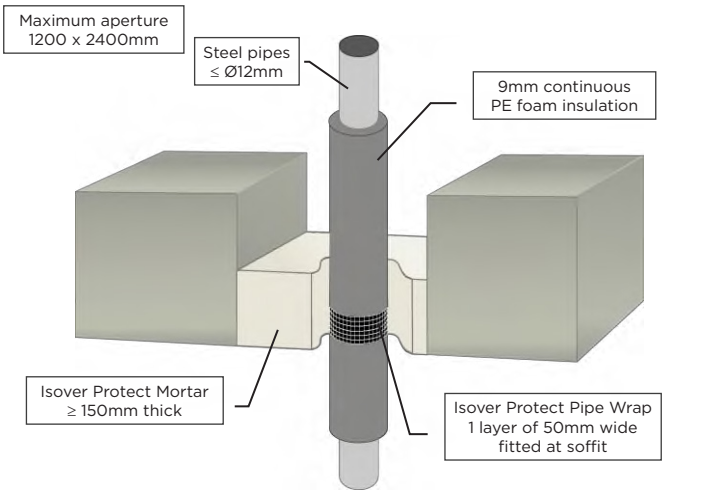

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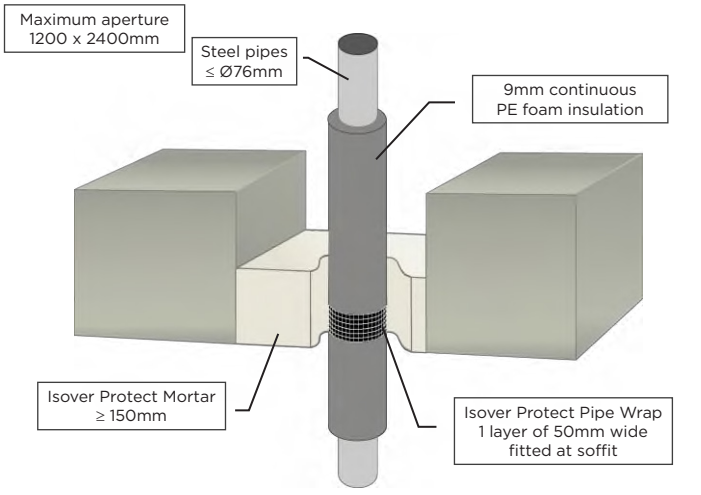

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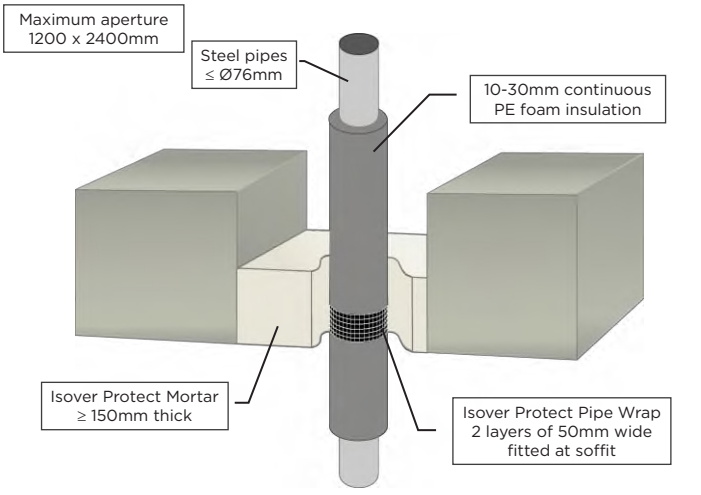

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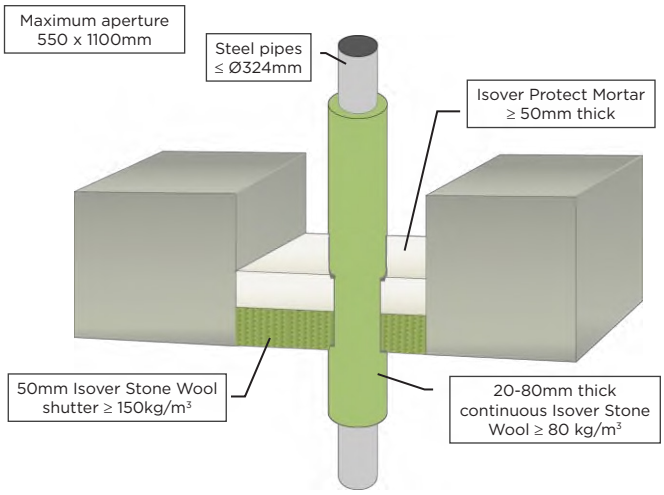

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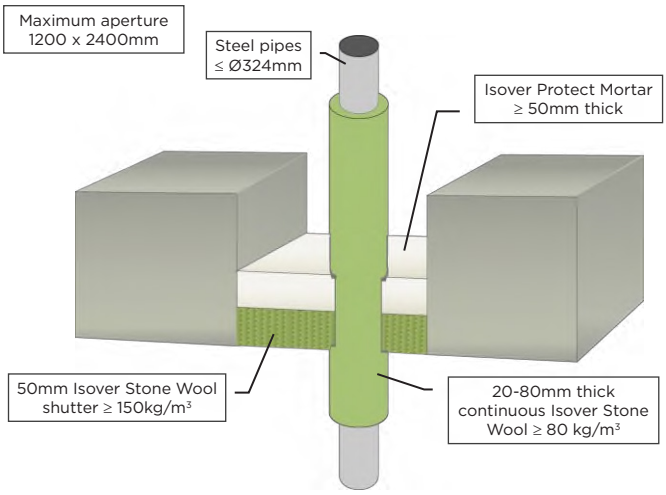

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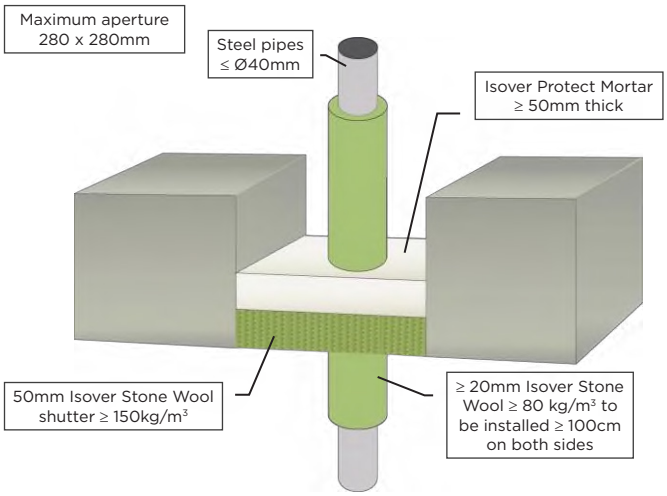

STEEL PIPES FIRE RESISTANCE EI 180 C/U (E 180)

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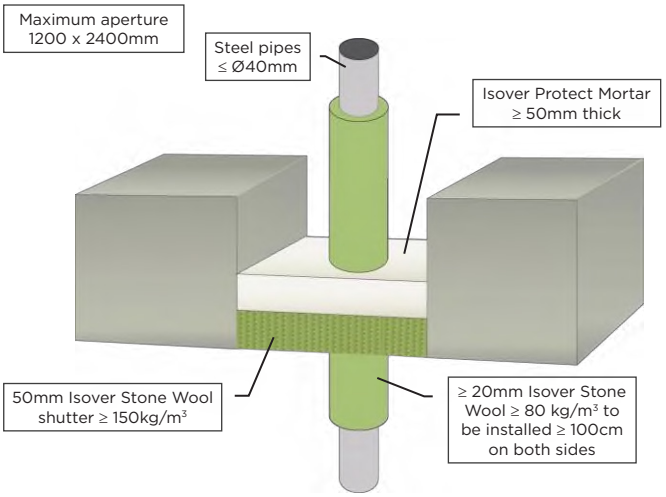

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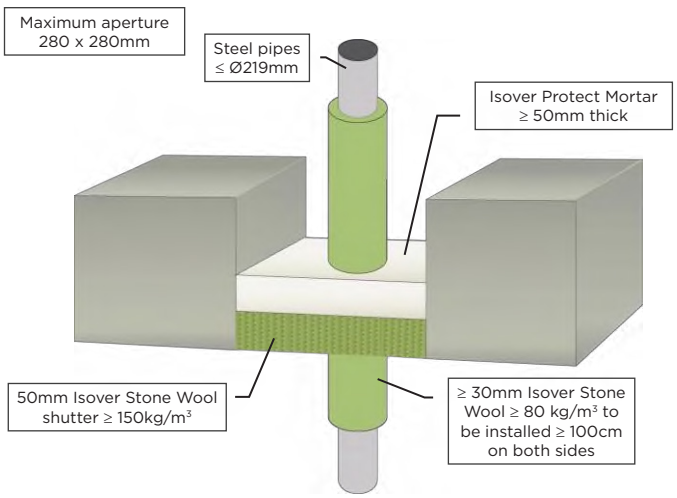

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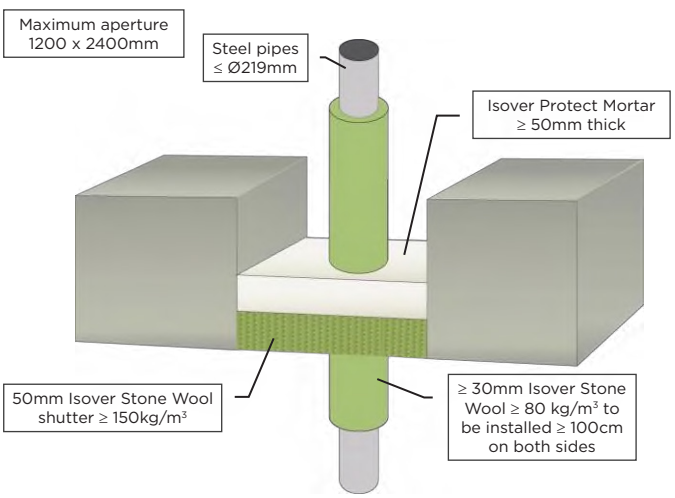

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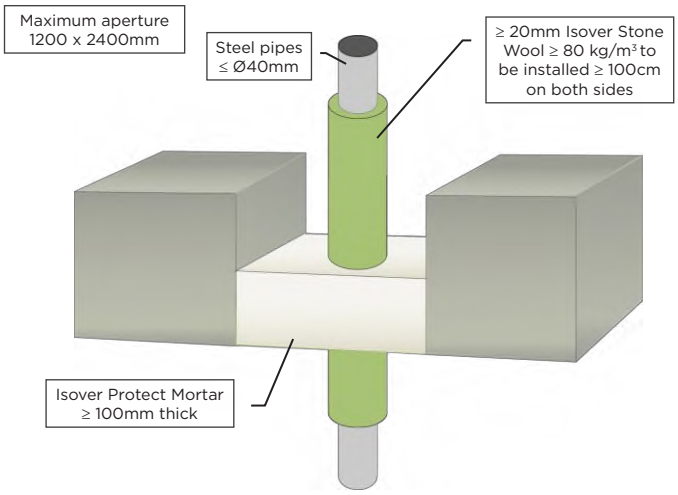

STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 240)

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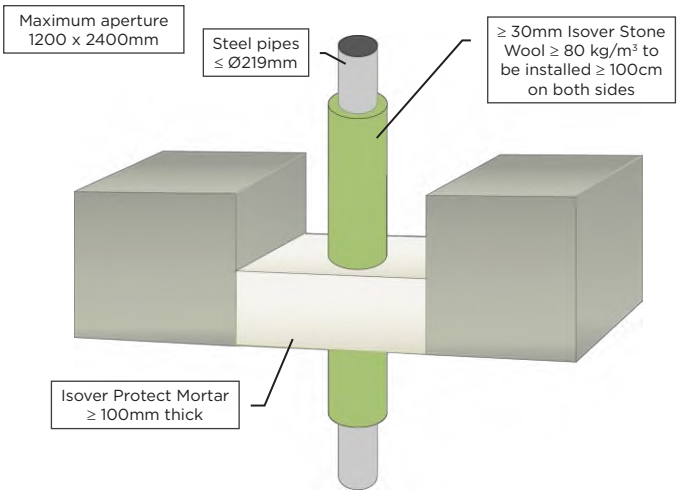

COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 180)

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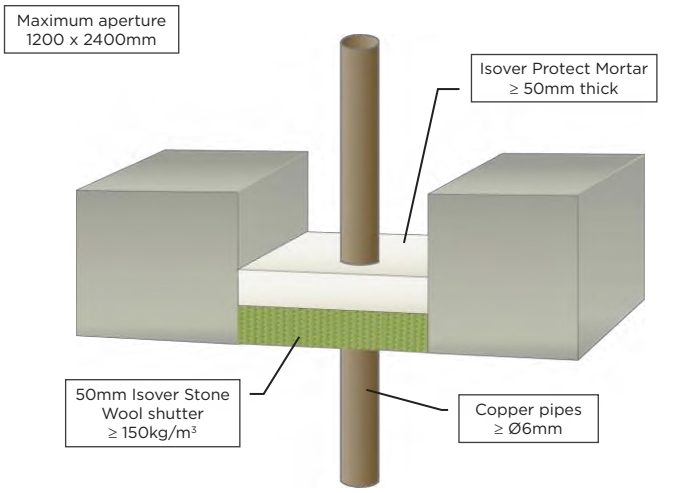

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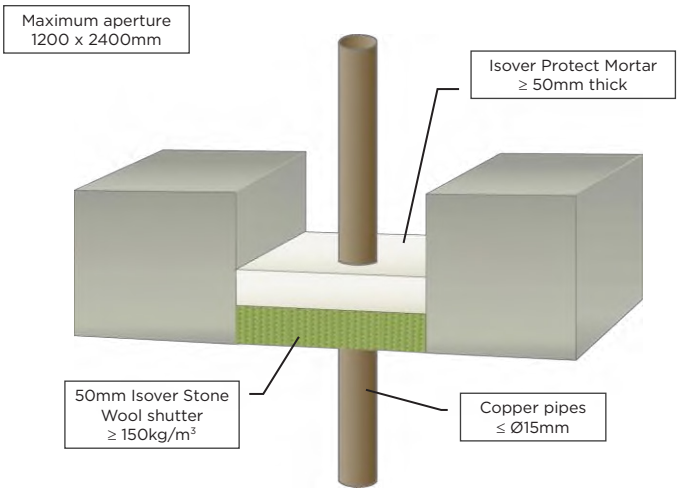

COPPER PIPES FIRE RESISTANCE E 180 C/C

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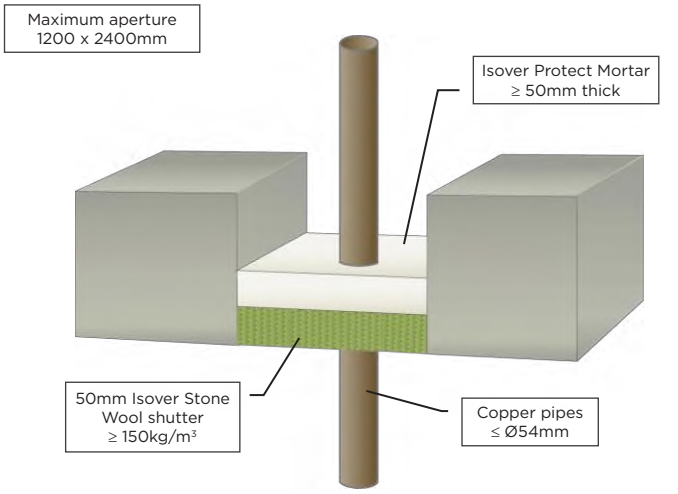

COPPER PIPES FIRE RESISTANCE EI 180 C/C (E 240)

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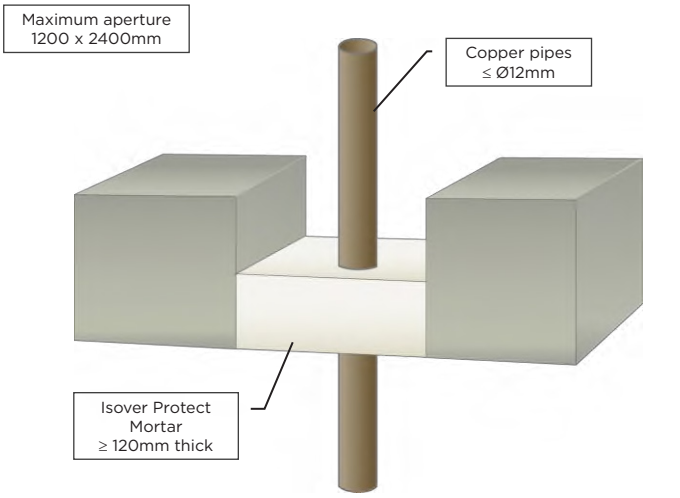

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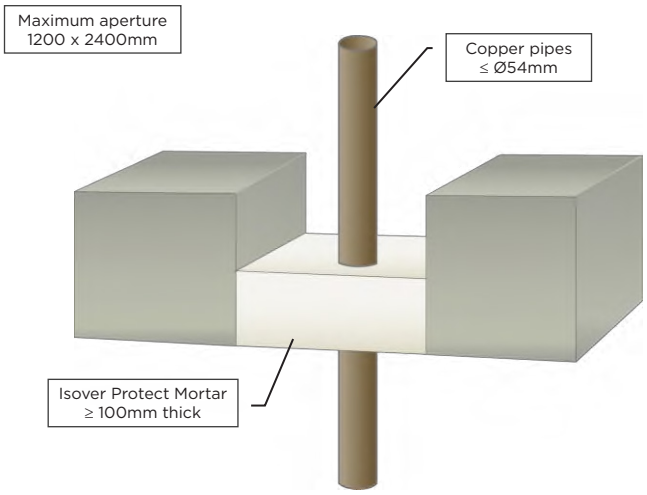

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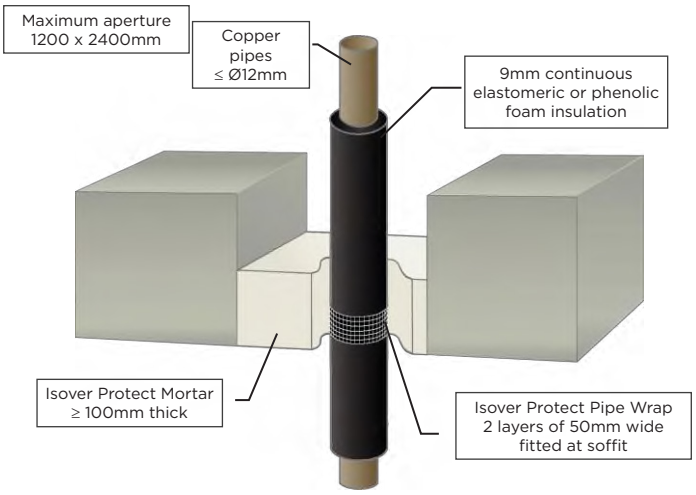

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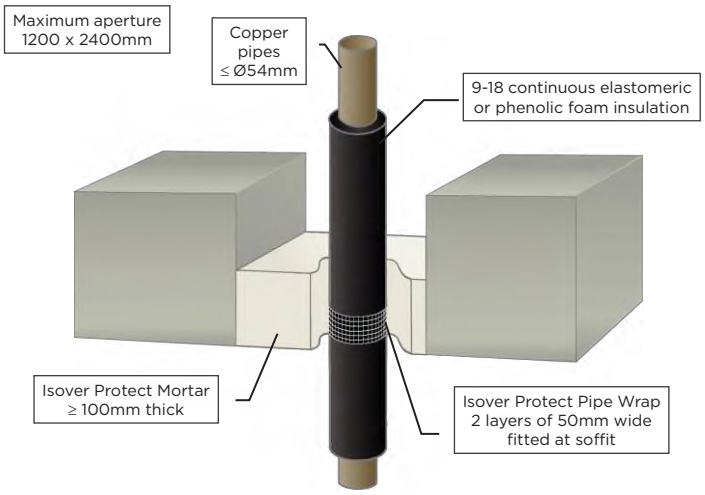

INSULATED COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 180)

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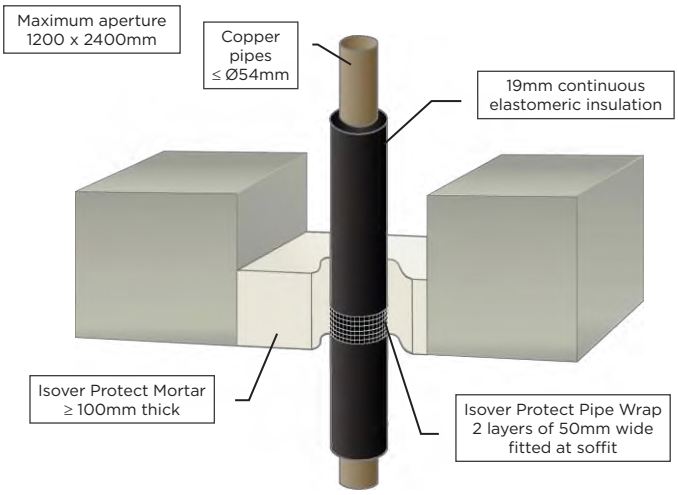

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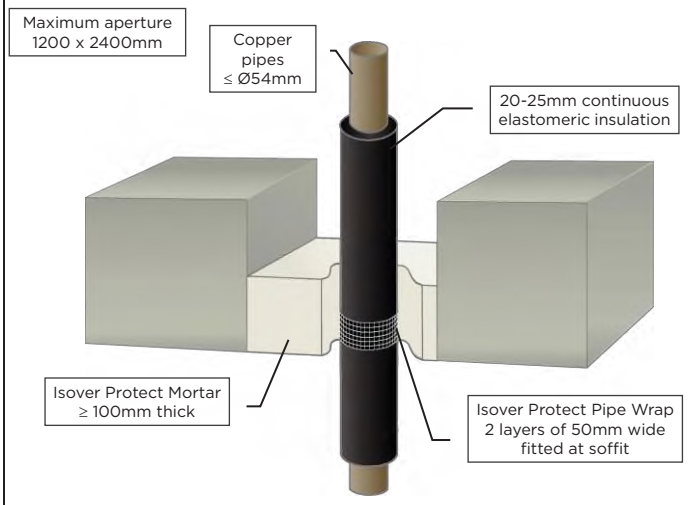
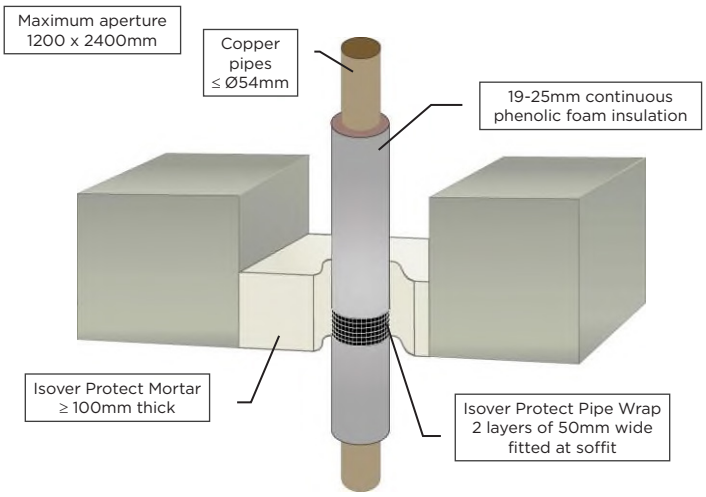


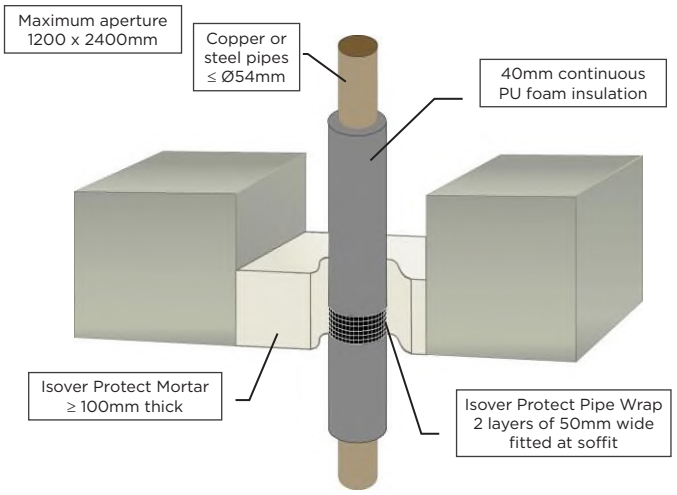
INSULATED COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 180)

≥ 100MM RIGID FLOORS



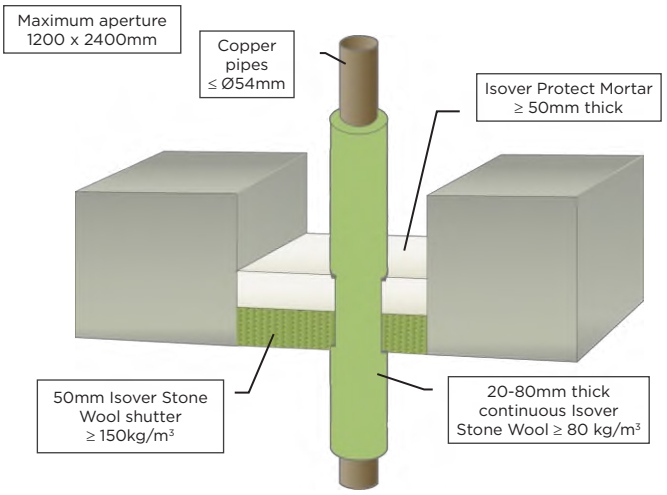
COPPER OR STEEL PIPES FIRE RESISTANCE EI 60 C/C (E 120)

≥ 100MM RIGID FLOORS



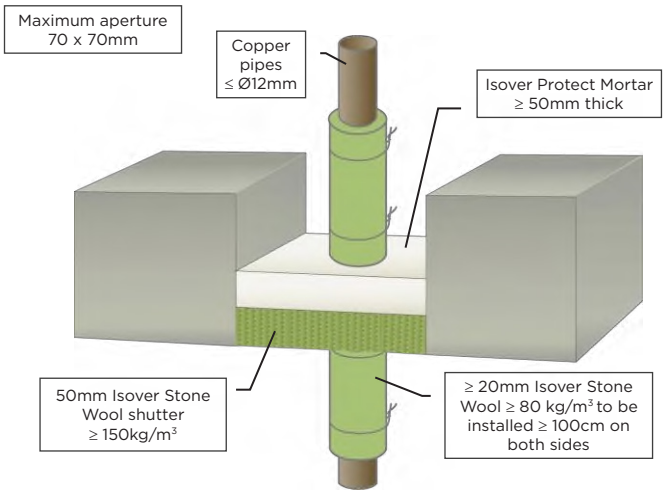
INSULATED COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 180)

≥ 100MM RIGID FLOORS



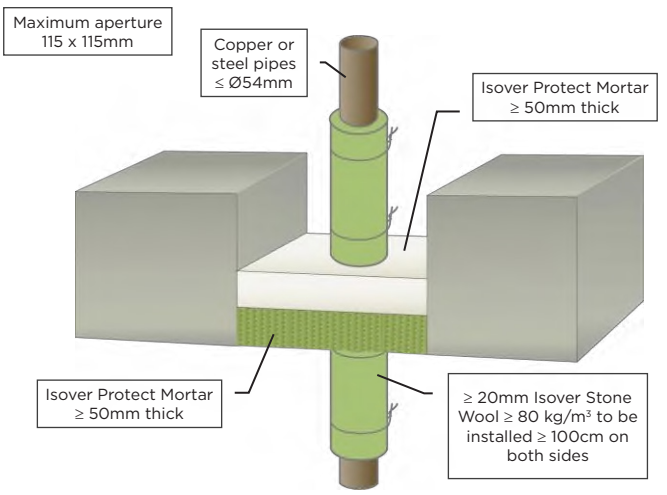
COPPER PIPES FIRE RESISTANCE EI 240 C/C (E 240)

≥ 100MM RIGID FLOORS



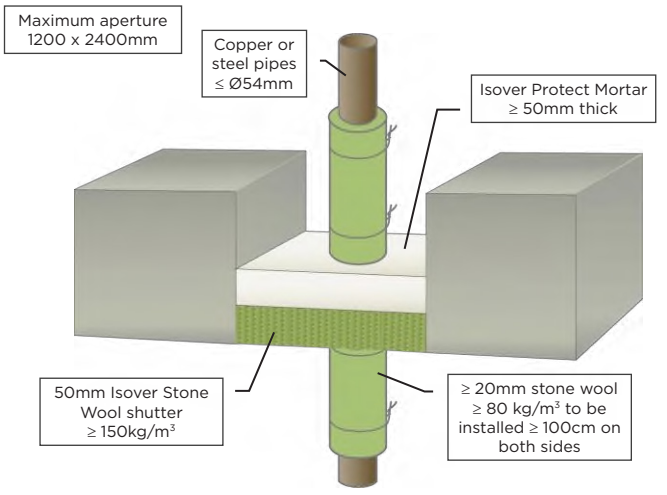
COPPER OR STEEL PIPES FIRE RESISTANCE EI 180 C/C (E 240)

≥ 100MM RIGID FLOORS



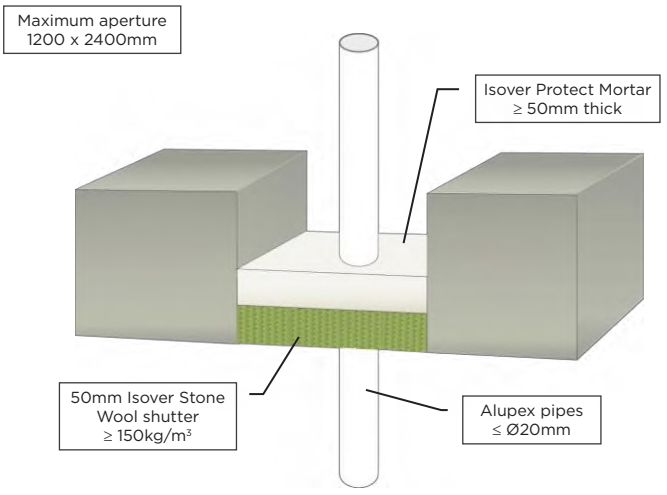
COPPER OR STEEL PIPES FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS



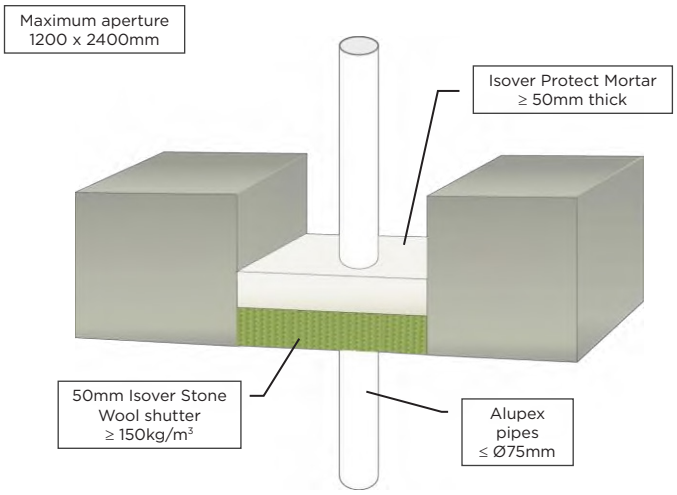
ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS



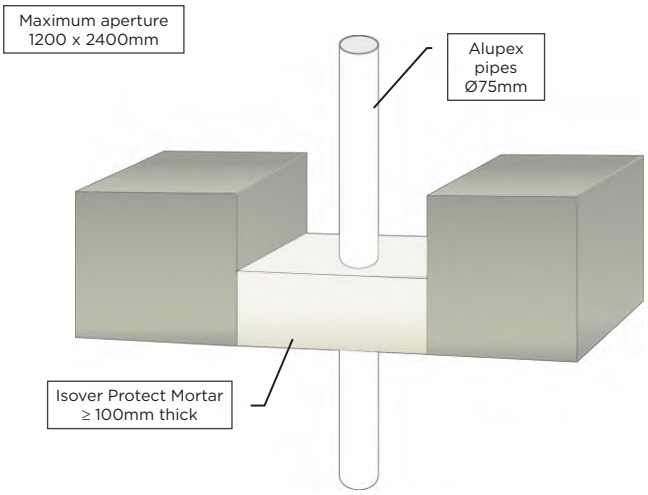
ALUPEX PIPES FIRE RESISTANCE EI 30 C/C (E 180)

≥ 100MM RIGID FLOORS



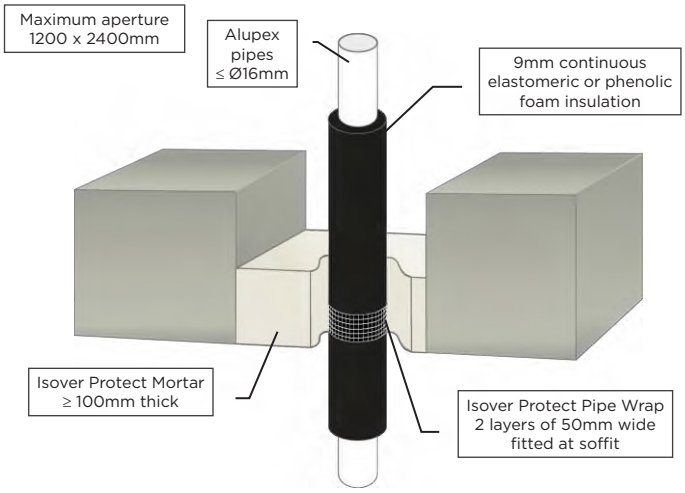
ALUPEX PIPES FIRE RESISTANCE EI 20 U/C (E 240)

≥ 100MM RIGID FLOORS



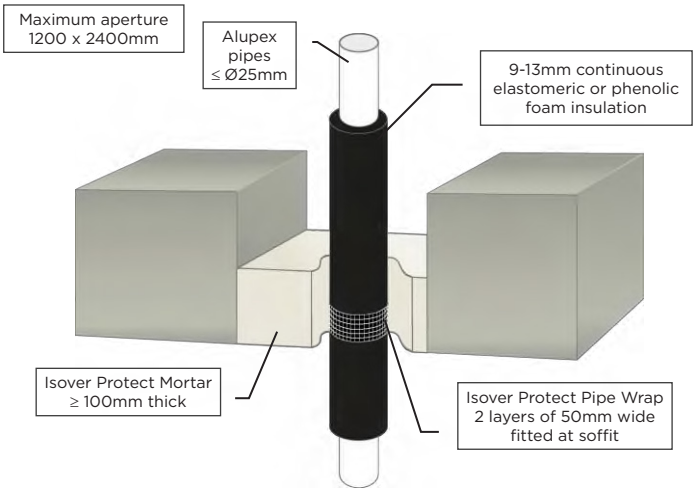
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 240 C/C (E 240)

≥ 100MM RIGID FLOORS



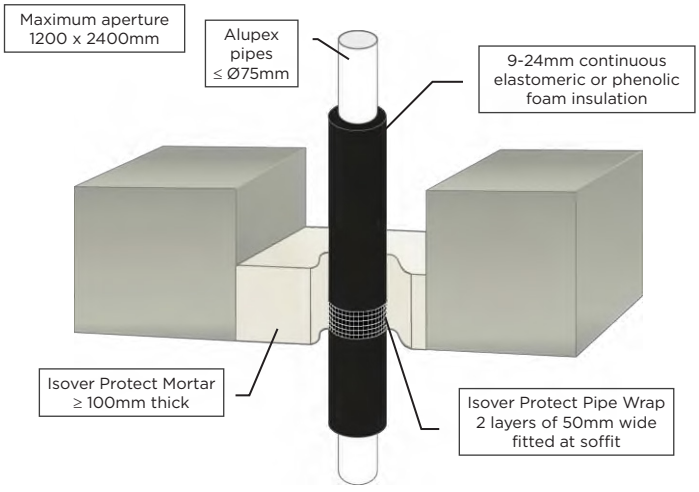
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 240)

≥ 100MM RIGID FLOORS



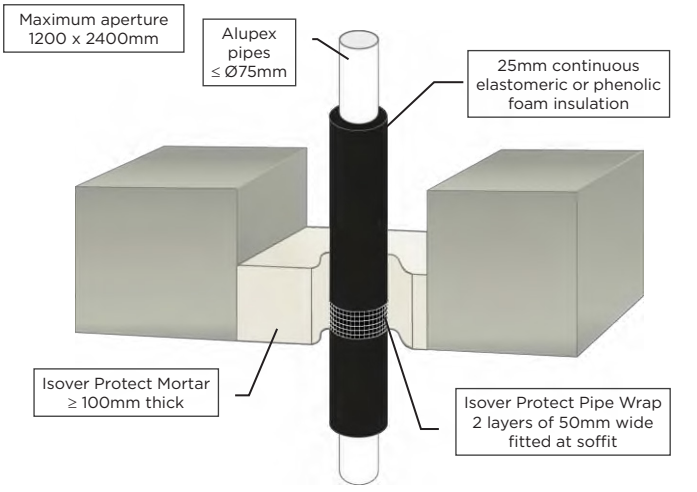
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 90 C/C (E 180)

≥ 100MM RIGID FLOORS



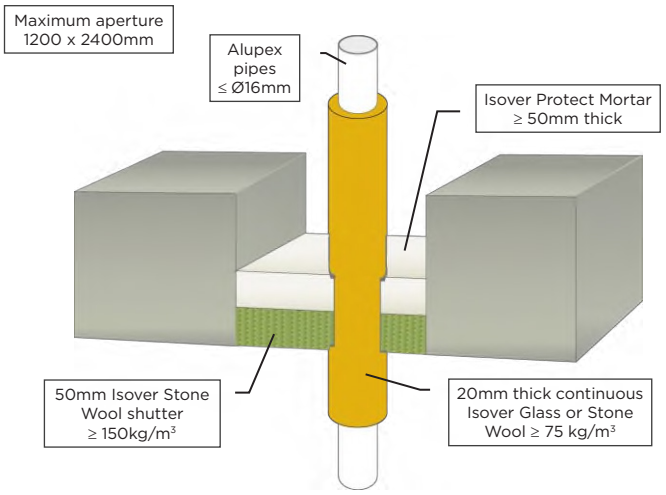
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS



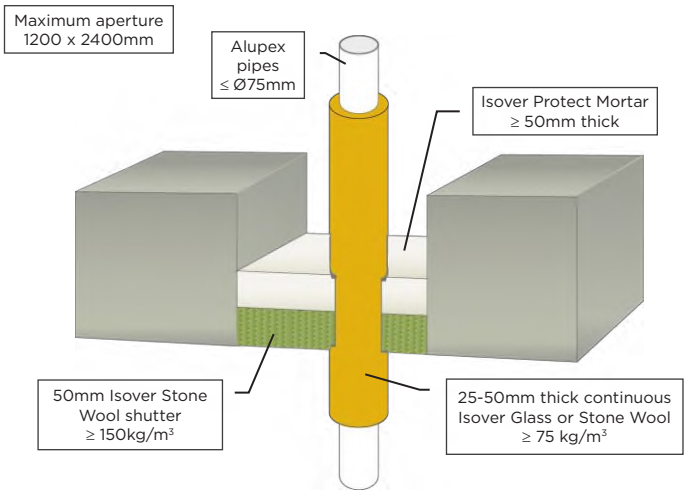
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS



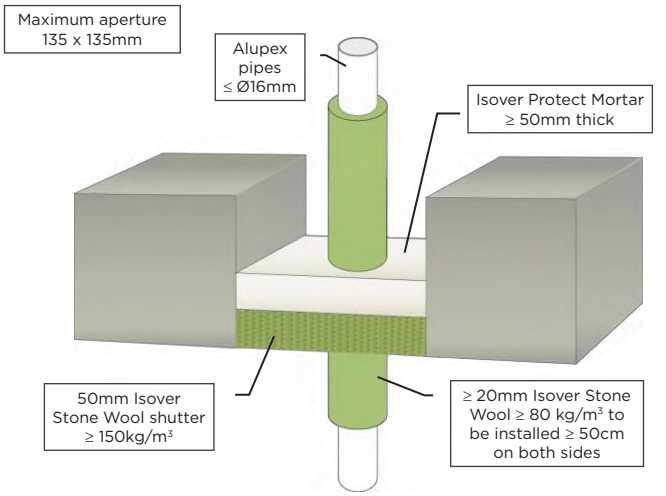
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM RIGID FLOORS



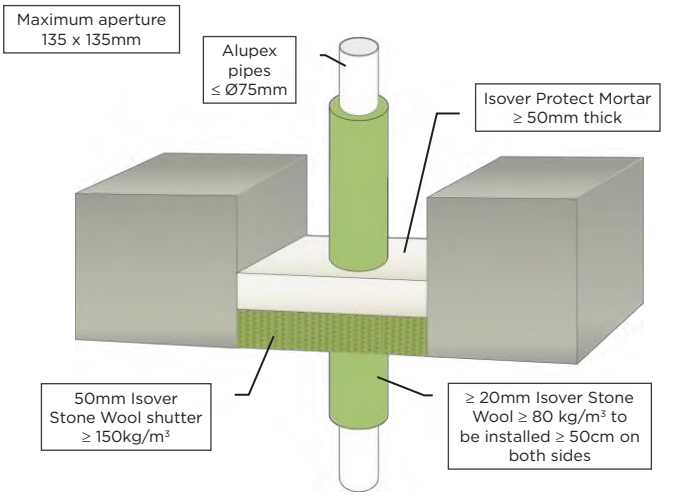
ALUPEX PIPES FIRE RESISTANCE EI 240 C/C (E 240)

≥ 100MM RIGID FLOORS



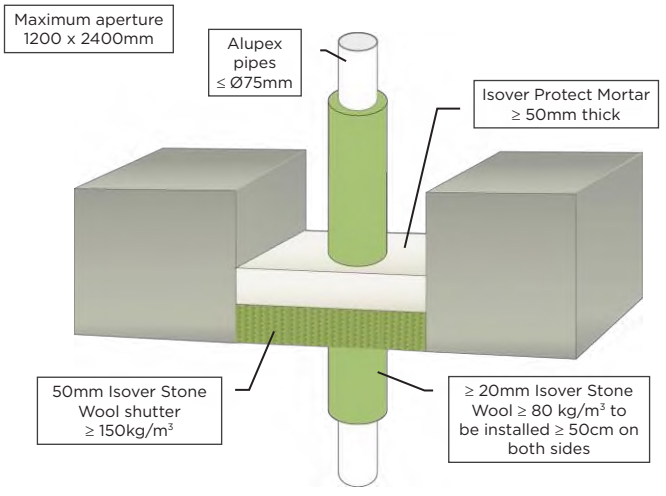
ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 240)

≥ 100MM RIGID FLOORS



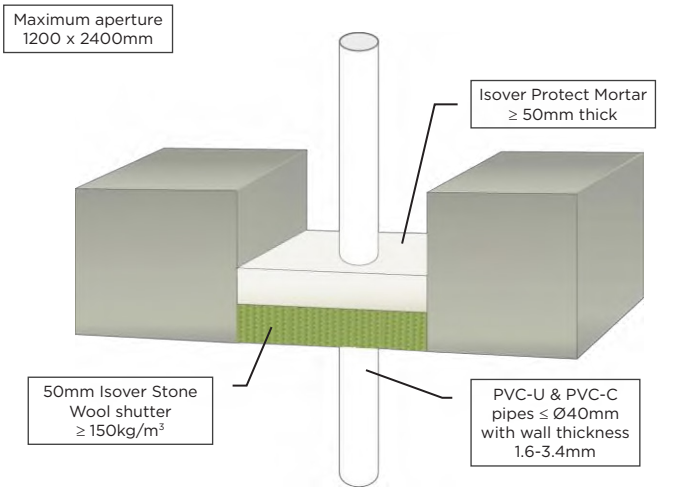
ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS



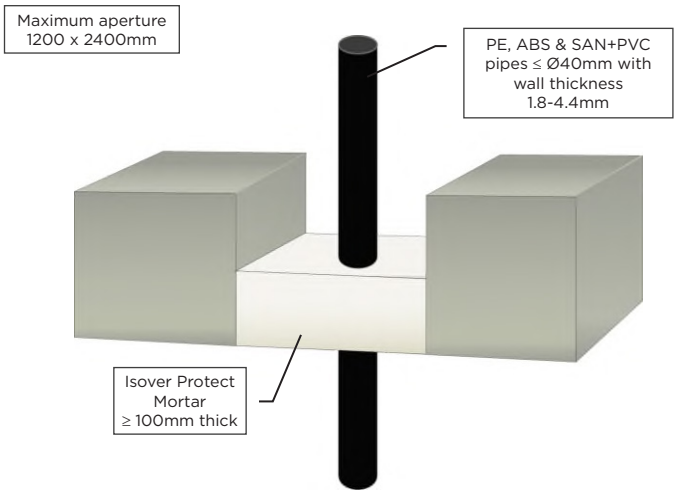
PVC PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM RIGID FLOORS



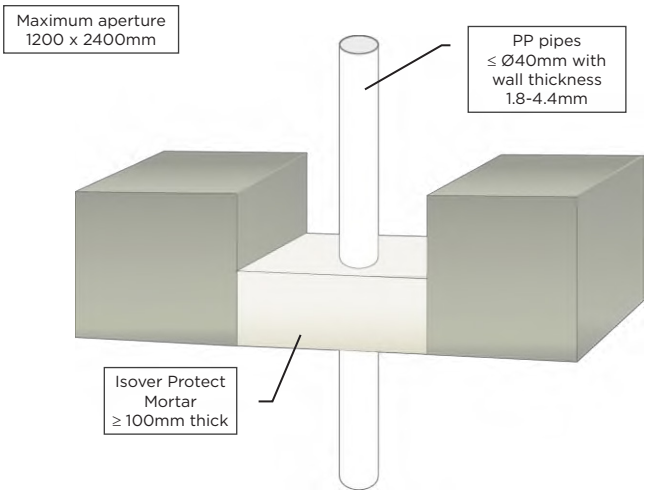
PE & ABS PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM RIGID FLOORS

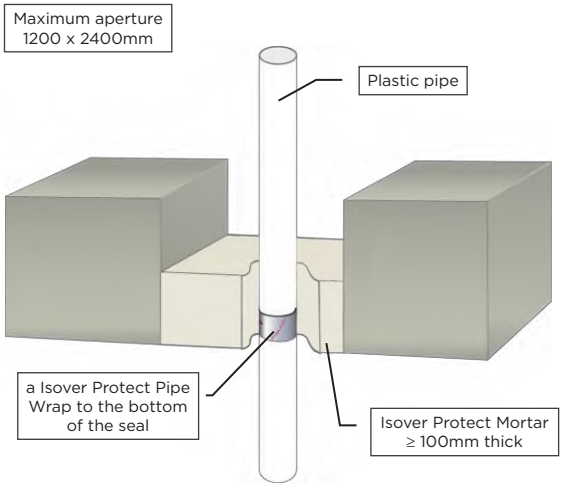


PP PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM RIGID FLOORS



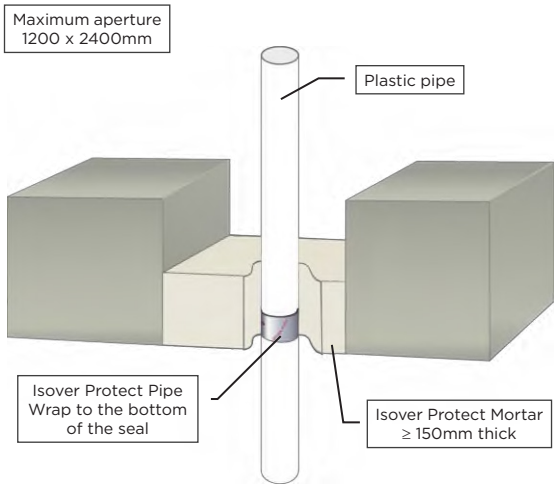
PLASTIC PIPES IN U/C & C/C CONFIGURATIONS



a ≥ 100MM RIGID FLOORS

Services	Pipe Wall Thickness	Isover Protect Pipe Wrap	Classification
Ø ≤ 40mm PVC-U og PVC-C	1.8 - 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 180 U/U)
Ø ≤ 40mm PE, ABS og SAN+PVC	2.4 - 3.7mm	50 x 1.8mm (1 layer)	EI 240 U/U (E 240 U/U)
Ø ≤ 40mm PP	1.8 - 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
Ø ≤ 110mm PVC-U og PVC-C	1.9 - 6,6mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
Ø ≤ 110mm PE, ABS og SAN+PVC	2.5 - 10.0mm	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø ≤ 110mm PP	1.9 - 6.3mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
Ø ≤ 125mm PVC-U og PVC-C	3.5 - 7.4mm	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø ≤ 125mm PE, ABS og SAN+PVC	3.9 - 11.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
Ø ≤ 125mm PP	3.4 - 11.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
Ø ≤ 160mm PVC-U og PVC-C	4.5 - 9.5mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø ≤ 160mm PVC-U og PVC-C	4.5mm	50 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
Ø ≤ 160mm PVC-U og PVC-C	9.5mm	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø ≤ 160mm PE, ABS og SAN+PVC	4.9 - 14.6mm	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
Ø ≤ 160mm PP	4.9 - 14.6mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)

PLASTIC PIPES IN U/U CONFIGURATION

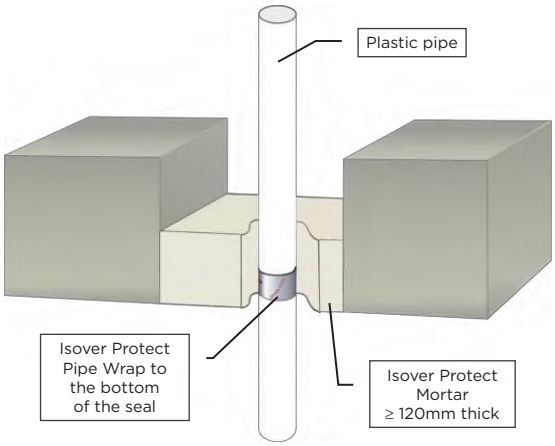


≥ 150MM RIGID FLOORS

Services	Pipe Wall Thickness	Isover Protect Pipe Wrap	Classification
Ø ≤ 40mm PVC-U og PVC-C	1.8 - 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 180 U/U)
Ø ≤ 40mm PE, ABS og SAN+PVC	2.4 - 3.7mm	50 x 1.8mm (1 layer)	EI 240 U/U (E 240 U/U)
Ø ≤ 40mm PP	1.8 - 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
Ø ≤ 110mm PVC-U og PVC-C	1.8 - 6,8mm	50 x 7.2mm (4 layers)	EI 60 U/U (E 60 U/U)
Ø ≤ 110mm PE, ABS og SAN+PVC	3.4 - 10.0mm	75 x 5.4mm (3 layers)	EI 240 U/U (E 240 U/U)
Ø ≤ 110mm PP	9.7 - 10,5mm	50 x 7.2mm (4 layers)	EI 120 U/U (E 120 U/U)
Ø ≤ 125mm PVC-U og PVC-C	1.8 - 7.4mm	50 x 7.2mm (4 layers)	EI 60 U/U (E 60 U/U)
Ø 125mm PVC-U og PVC-C	7.4mm	50 x 7.2mm (4 layers)	EI 120 U/U (E 120 U/U)
Ø 125mm PE, ABS og SAN+PVC	11.4mm	50 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø 125mm PP	11.4mm	50 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø 140mm PVC-U og PVC-C	6.5 - 8,3mm	75 x 10.8mm (6 layers)	EI 30 U/U (E 120 U/U)
Ø 140mm PE, ABS og SAN+PVC	8.0 - 12.4mm	75 x 10.8mm (6 layers)	EI 120 U/U (E 240 U/U)
Ø 140mm PP	12.8mm	75 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø ≤ 160mm PVC-U og PVC-C	4.8 - 9.5mm	75 x 10.8mm (6 layers)	EI 30 U/U (E 120 U/U)
Ø ≤ 160mm PE, ABS og SAN+PVC	4.9 - 14.6mm	75 x 7.2mm (4 layers)	EI 120 U/U (E 120 U/U)
Ø ≤ 160mm PE, ABS og SAN+PVC	3.9 - 14.6mm	75 x 18.0mm (10 layers)	EI 120 U/U (E 240 U/U)
Ø 160mm PP	14.6mm	75 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)

LARGE PVC PLASTIC PIPES

Maximum aperture
1200 x 2400mm

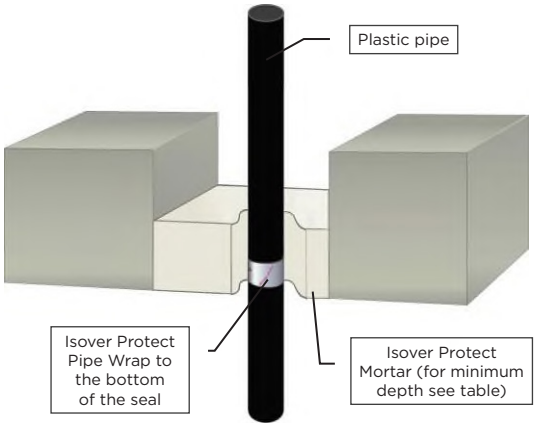


≥ 120MM RIGID FLOORS

Services	Pipe Wall Thickness	Isover Protect Pipe Wrap	Classification
Ø 160mm PVC-U og PVC-C	4.5 - 9.5mm	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
Ø 161 - 199mm PVC-U og PVC-C	4.5 - 11.9mm	75 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
Ø 200mm PVC-U og PVC-C	4.9 - 11.9mm	75 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
Ø 201 - 314mm PVC-U og PVC-C	4.9 - 11.9mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
Ø 315mm PVC-U og PVC-C	7.7mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
Ø 315mm PVC-U og PVC-C	7.8 - 12,1mm	75 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
Ø 316 - 399mm PVC-U og PVC-C	7.7 - 15,3mm	75 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)
Ø 400mm PVC-U og PVC-C	15.3mm	75 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)

LARGE PE PLASTIC PIPES

Maximum aperture
1200 x 2400mm

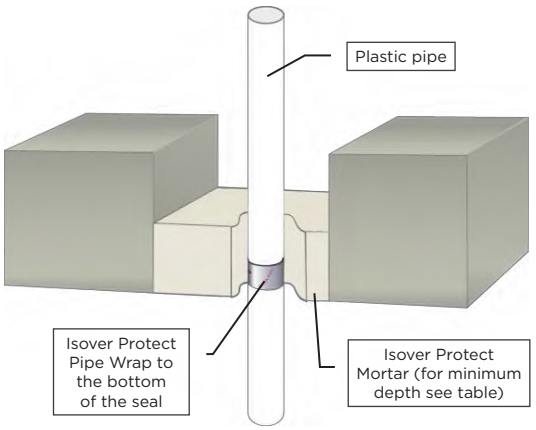


RIGID FLOORS

Services	Pipe Wall Thickness	Mortar & Floor Depth	Isover Protect Pipe Wrap	Classification
Ø 161-199mm PE, ABS, SAN+PVC	4.9 - 18.2mm	150mm	75 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
Ø 200mm PE, ABS og SAN+PVC	6.2 - 18.2mm	120mm	75 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
Ø 250mm PE, ABS og SAN+PVC	7.8mm	100mm	75 x 12.6mm (7 layers)	EI 180 C/C (E 180 C/C)
Ø 201-315mm PE, ABS, SAN+PVC	4.9 - 18.7mm	150mm	75 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)

LARGE PP PLASTIC PIPES

Maximum aperture
1200 x 2400mm



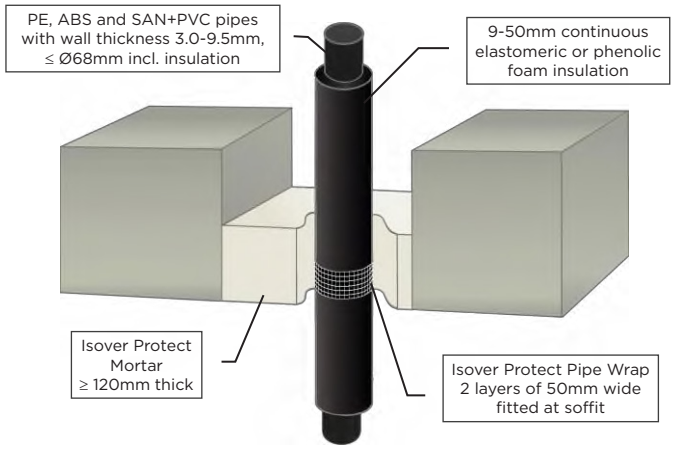
RIGID FLOORS

Services	Pipe Wall Thickness	Mortar & Floor Depth	Isover Protect Pipe Wrap	Classification
Ø 161-200mm PP	4.9 - 18.2mm	120mm	75 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
Ø 201-315mm PP	4.9 - 7.7mm	150mm	75 x 18.0mm (10 layers)	EI 180 C/C (E 180 C/C)
Ø 201-315mm PP	7.8 - 28.6mm	150mm	75 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
Ø 316-399mm PP	7.7 - 28.6mm	150mm	75 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)
Ø 400mm PP	22.7mm	150mm	75 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)

INSULATED PE PIPES FIRE RESISTANCE EI 240 C/C (E 240)

Maximum aperture 1200 x 2400mm

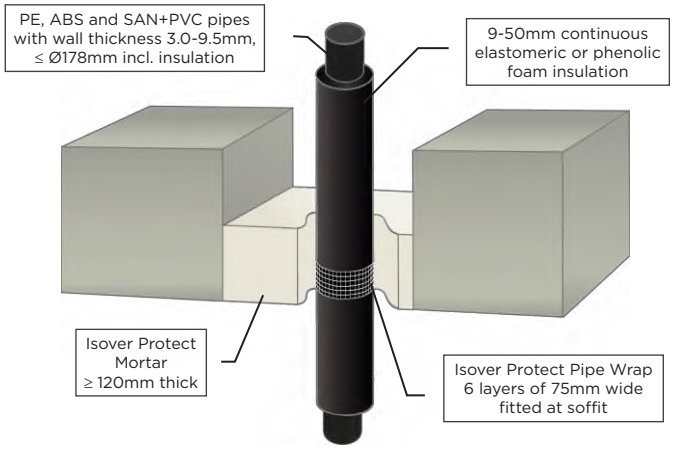
≥ **120MM RIGID FLOORS**



INSULATED PE PIPES FIRE RESISTANCE EI 240 C/C (E 240)

Maximum aperture 1200 x 2400mm

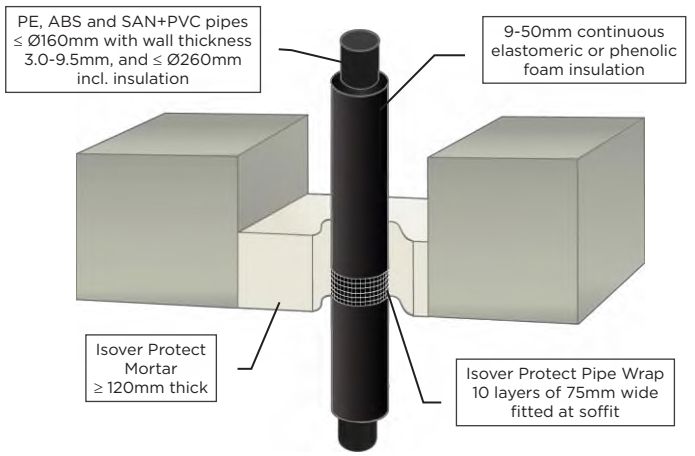
≥ **120MM RIGID FLOORS**



INSULATED PE PIPES FIRE RESISTANCE EI 120 C/C (E 120)

Maximum aperture 1200 x 2400mm

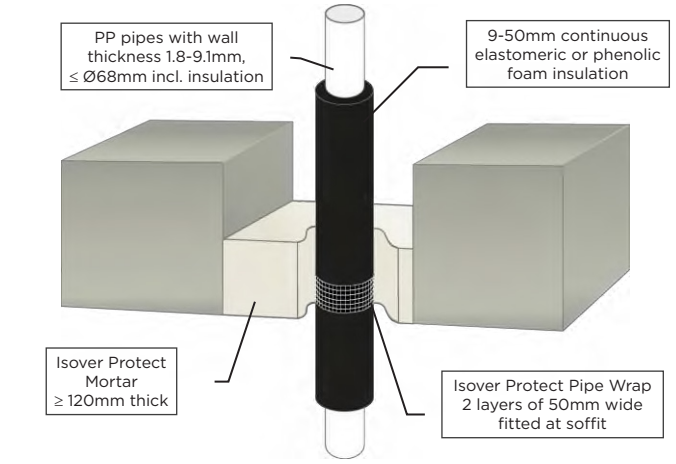
≥ **120MM RIGID FLOORS**



INSULATED PP PIPES FIRE RESISTANCE EI 180 C/C (E 240)

Maximum aperture 1200 x 2400mm

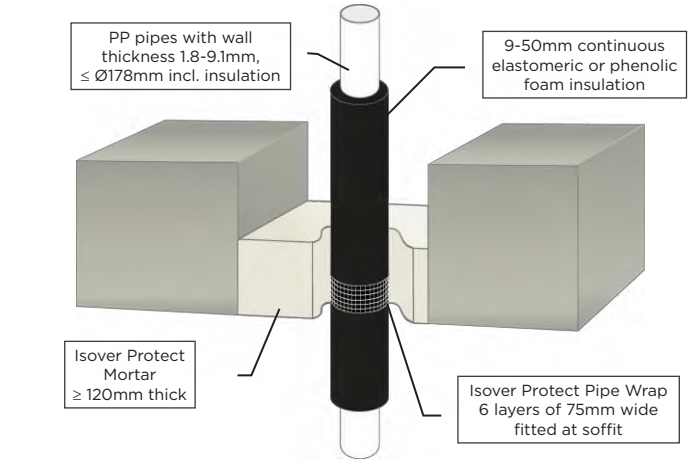
≥ **120MM RIGID FLOORS**



INSULATED PP PIPES FIRE RESISTANCE EI 240 C/C (E 240)

Maximum aperture 1200 x 2400mm

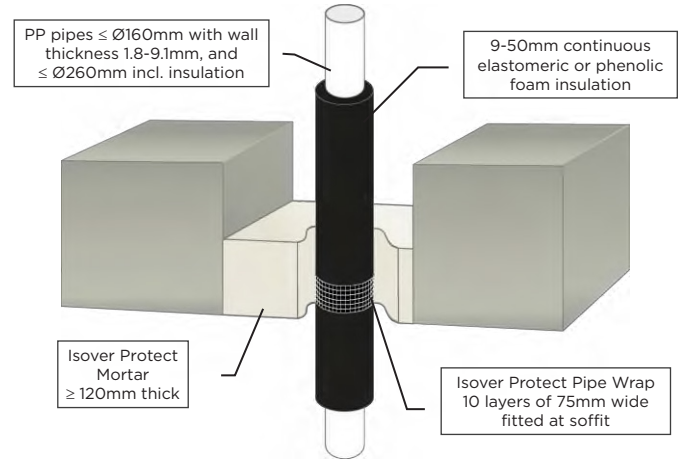
≥ **120MM RIGID FLOORS**



INSULATED PP PIPES FIRE RESISTANCE EI 120 C/C (E 120)

Maximum aperture 1200 x 2400mm

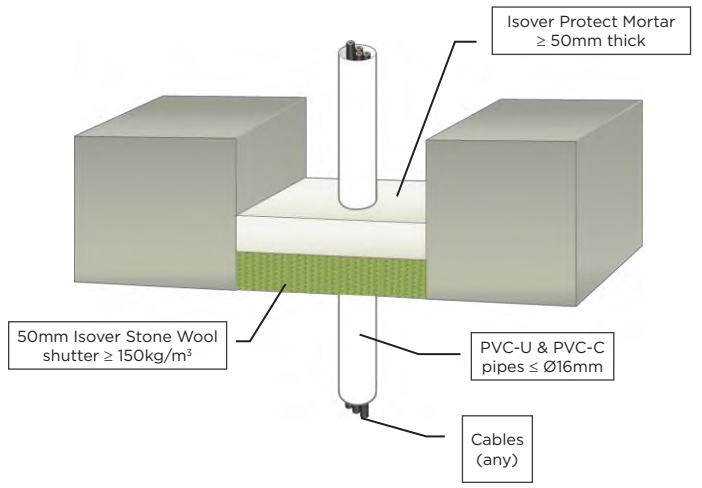
≥ **120MM RIGID FLOORS**



PLASTIC CONDUITS FIRE RESISTANCE EI 180 C/U (E 180)

Maximum aperture 1200 x 2400mm

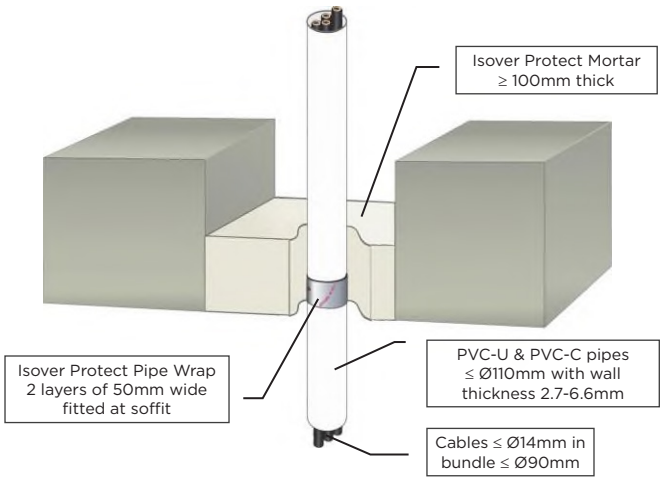
≥ 100MM RIGID FLOORS



PLASTIC CONDUITS FIRE RESISTANCE EI 120 U/C (E 120)

Maximum aperture 1200 x 2400mm

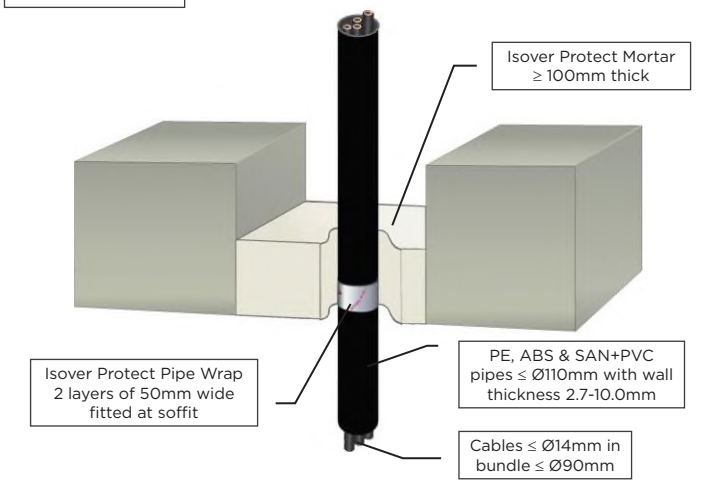
≥ 100MM RIGID FLOORS



PLASTIC CONDUITS FIRE RESISTANCE EI 60 U/C (E 120)

Maximum aperture 1200 x 2400mm

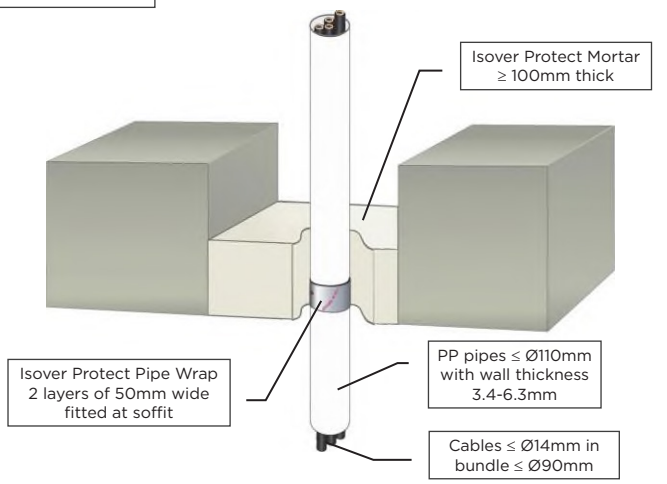
≥ 100MM RIGID FLOORS



PLASTIC CONDUITS FIRE RESISTANCE EI 60 U/C (E 60)

Maximum aperture 1200 x 2400mm

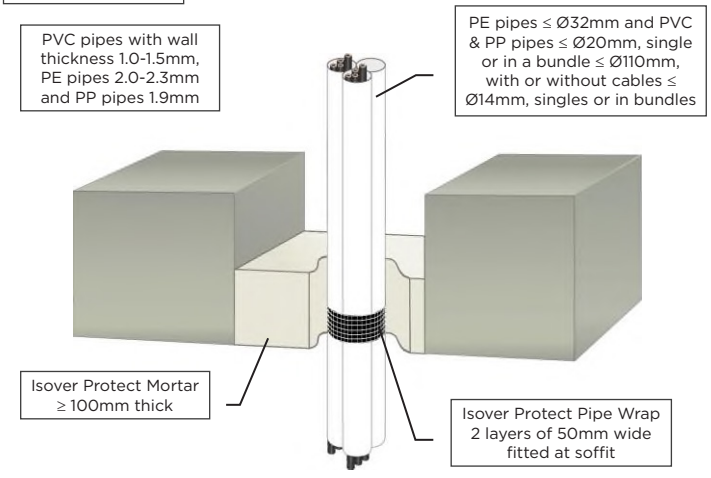
≥ 100MM RIGID FLOORS



PLASTIC PIPES & CONDUITS FIRE RESISTANCE EI 60 U/U (E 90)

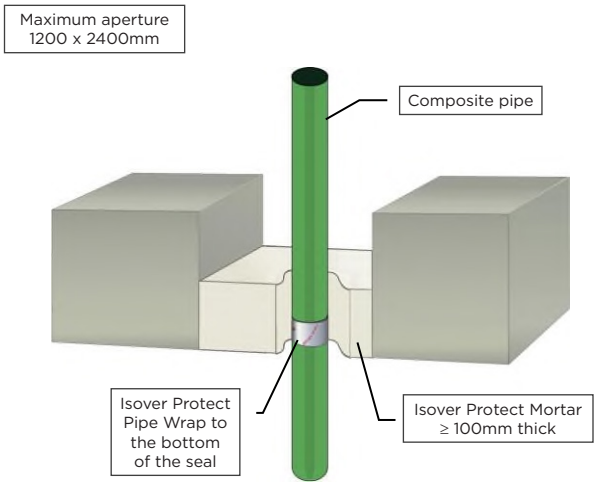
Maximum aperture 1200 x 2400mm

≥ 100MM RIGID FLOORS



COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 240

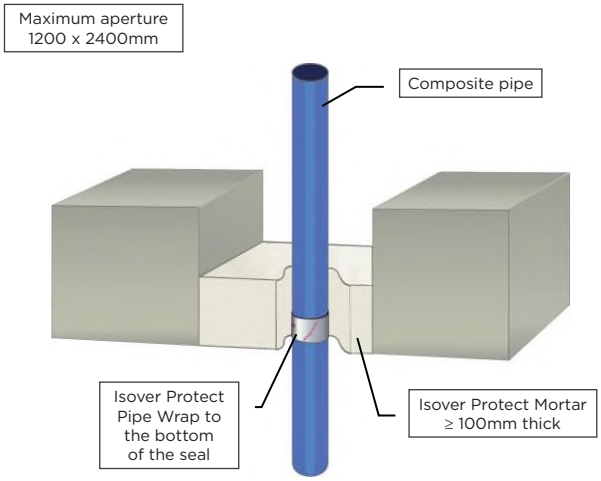
≥ **100MM RIGID FLOORS**



Services	Isover Protect Pipe Wrap	Classification
Ø 32mm Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 240 C/C (E 240 C/C)
Ø 40mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 50mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 63mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 75mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 90mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 110mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)

COMPOSITE BLUEPOWER PLASTIC PIPES FIRE RESISTANCE EI 120 – 240

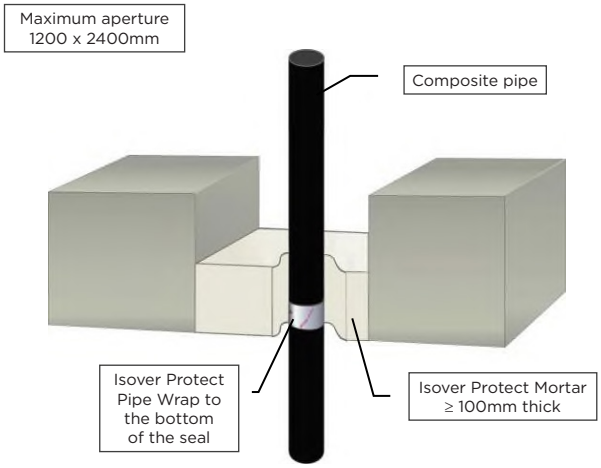
≥ **100MM RIGID FLOORS**



Services	Isover Protect Pipe Wrap	Classification
Ø 32mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 240 U/U (E 240 U/U)
Ø 40mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 240 U/U (E 240 U/U)
Ø 50mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 240 U/U (E 240 U/U)
Ø 75mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Bluepower pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Bluepower pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Bluepower pipes	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)

COMPOSITE GEBERIT SILENT-PP PLASTIC PIPES FIRE RESISTANCE EI 120

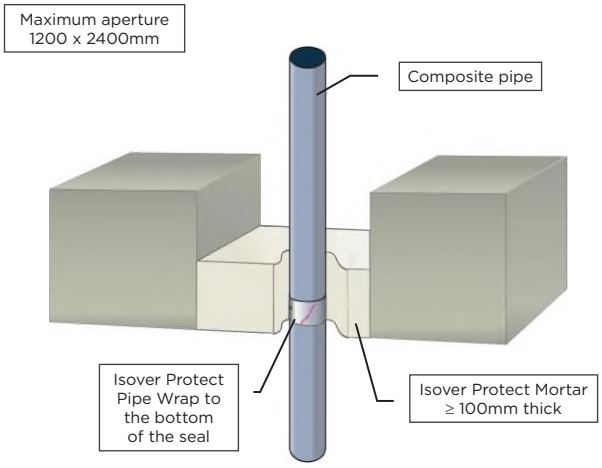
≥ **100MM RIGID FLOORS**



Services	Isover Protect Pipe Wrap	Classification
Ø 32mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 40mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)

COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 180 – 240

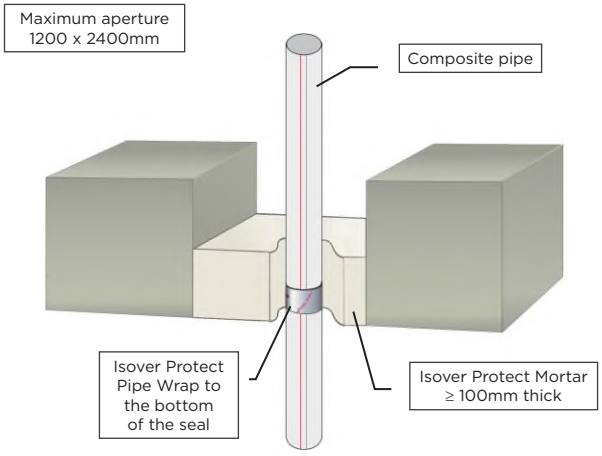
≥ **100MM RIGID FLOORS**



Services	Isover Protect Pipe Wrap	Classification
Ø 32mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 240 U/C)
Ø 40mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 240 U/C)
Ø 50mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 240 U/C)
Ø 75mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 180 U/C)
Ø 90mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 180 U/C)
Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 180 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)

COMPOSITE REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120

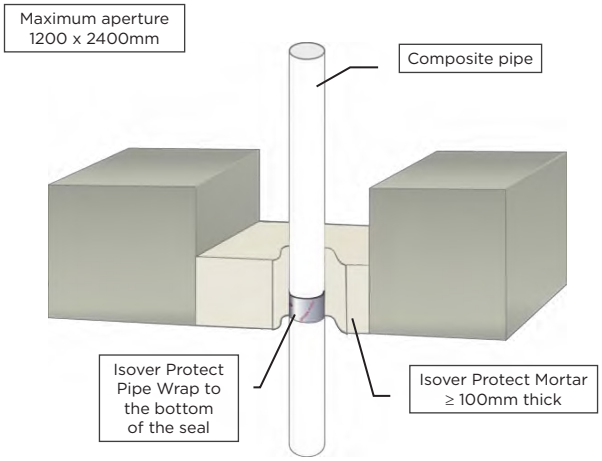
≥ **100MM RIGID FLOORS**



Services	Isover Protect Pipe Wrap	Classification
Ø 40mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 240 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)

COMPOSITE UPONOR DECIBEL PLASTIC PIPES FIRE RESISTANCE EI 120

≥ **100MM RIGID FLOORS**

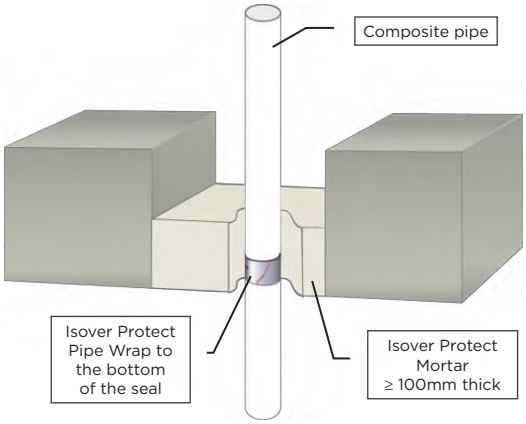


Services	Isover Protect Pipe Wrap	Classification
Ø 50mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)

COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 240

≥ 100MM RIGID FLOORS

Maximum aperture
1200 x 2400mm

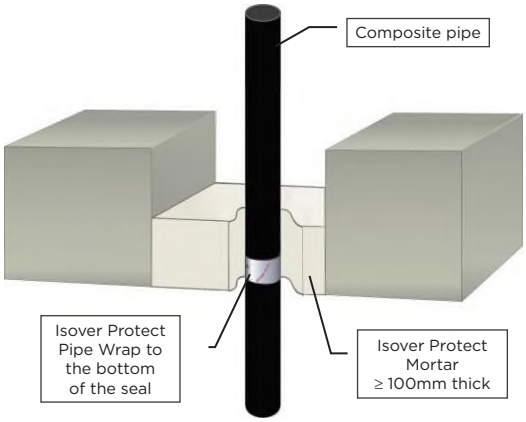


Services	Isover Protect Pipe Wrap	Classification
Ø 50mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
Ø 75mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 90mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
Ø 110mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)

COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 120

≥ 100MM RIGID FLOORS

Maximum aperture
1200 x 2400mm

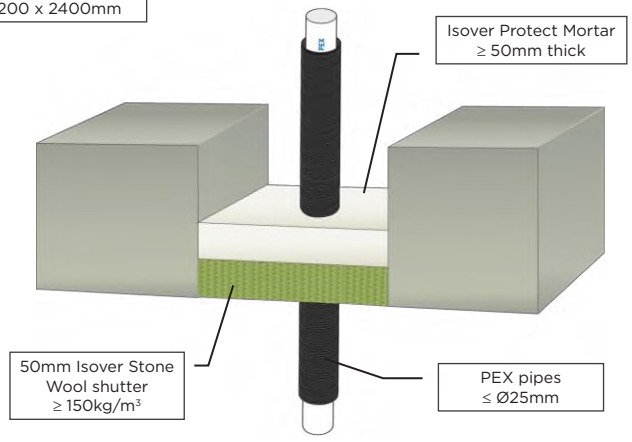


Services	Isover Protect Pipe Wrap	Classification
Ø 32mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 40mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Wavin Sitech pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)

PEX PIPE-IN-PIPE SYSTEM FIRE RESISTANCE EI 180 C/C (E 180)

≥ 100MM RIGID FLOORS

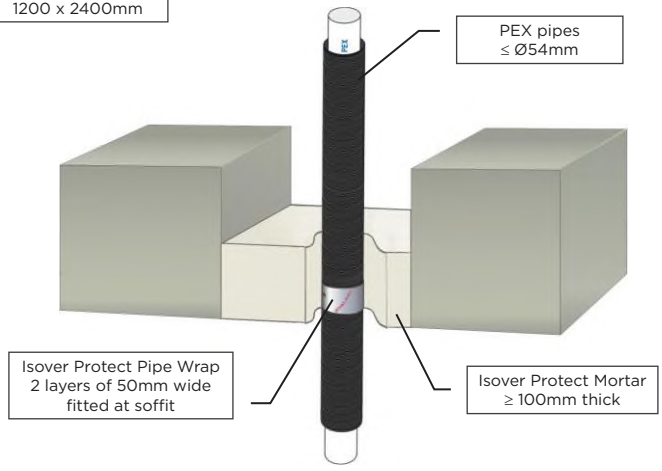
Maximum aperture
1200 x 2400mm



PEX PIPE-IN-PIPE SYSTEM FIRE RESISTANCE EI 120 C/C (E 120)

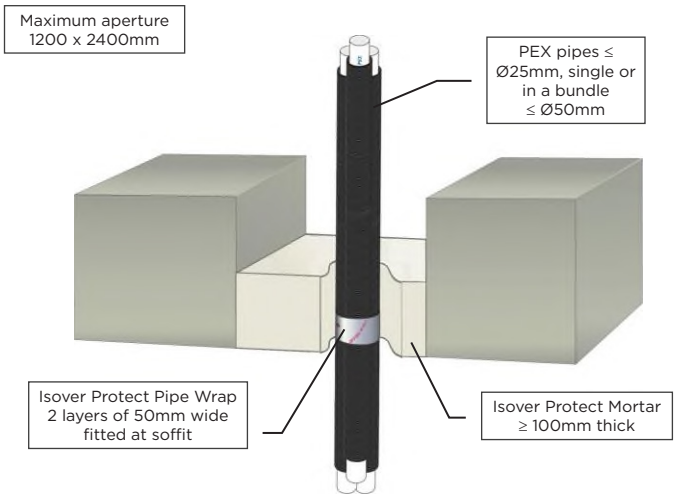
≥ 100MM RIGID FLOORS

Maximum aperture
1200 x 2400mm



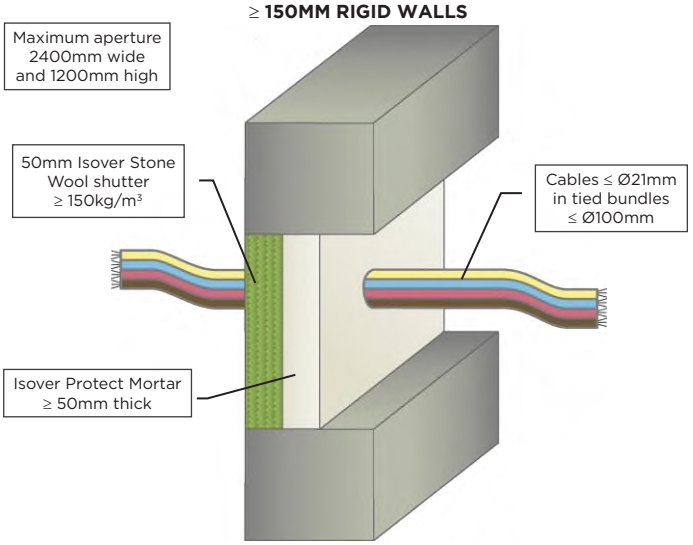
PEX PIPE-IN-PIPE SYSTEM FIRE RESISTANCE EI 240 C/C (E 240)

≥ 100MM RIGID FLOORS



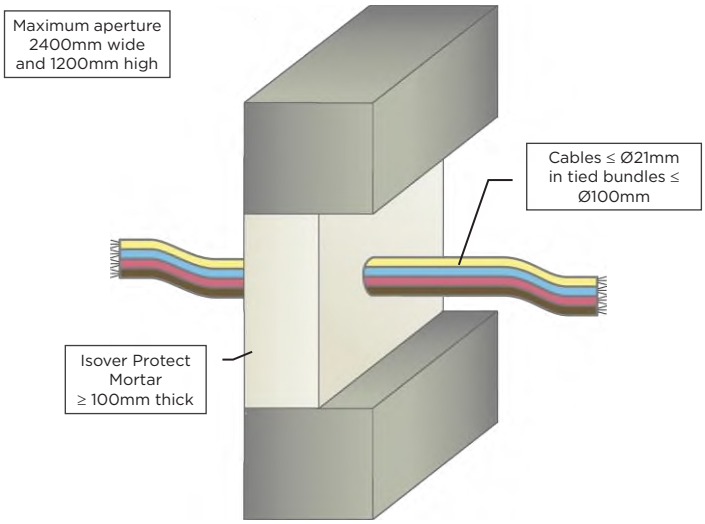
CABLES FIRE RESISTANCE EI 90 (E 180)

≥ 150MM RIGID WALLS



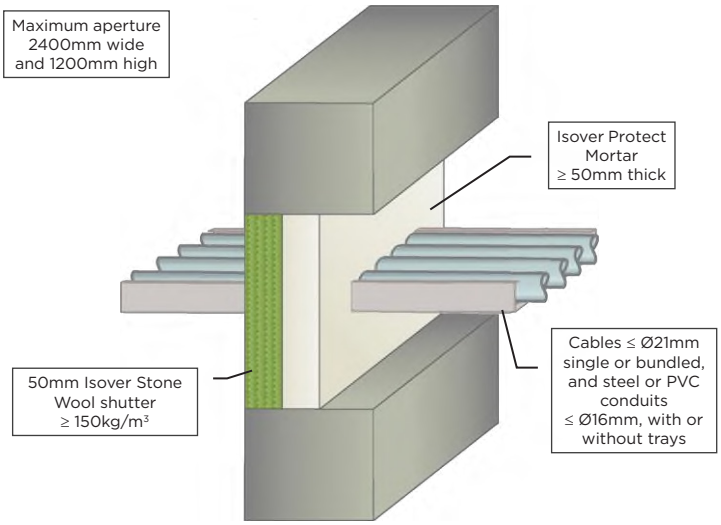
CABLES FIRE RESISTANCE EI 120 (E 120)

≥ 150MM RIGID WALLS



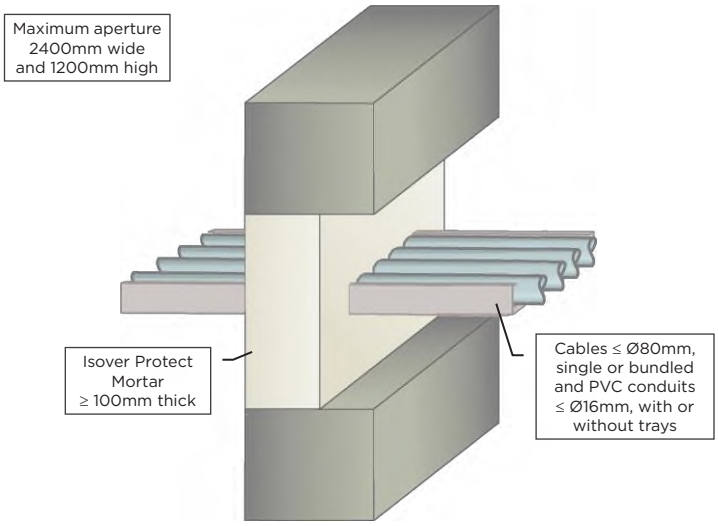
CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 180)

≥ 150MM RIGID WALLS



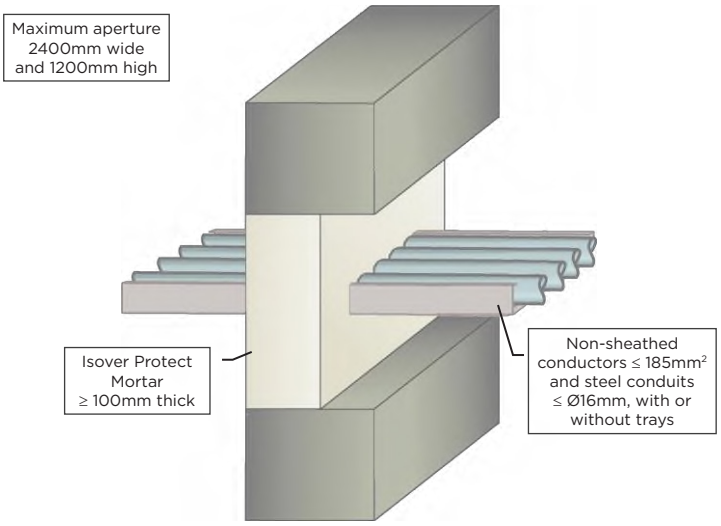
CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 240)

≥ 150MM RIGID WALLS



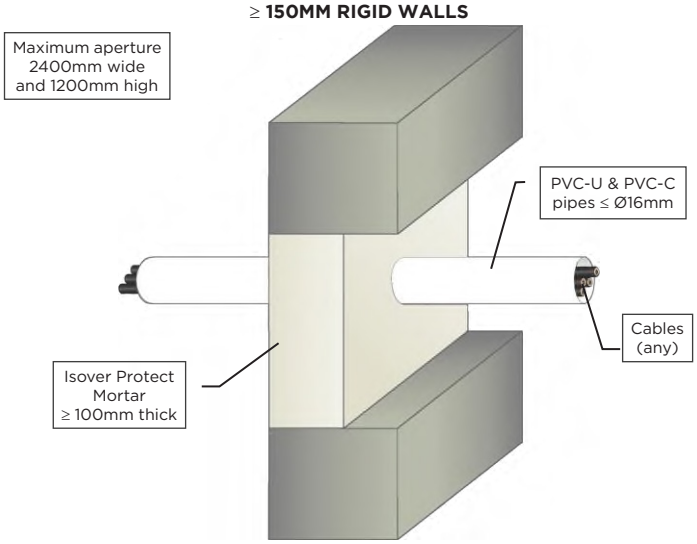
CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 120)

≥ 150MM RIGID WALLS



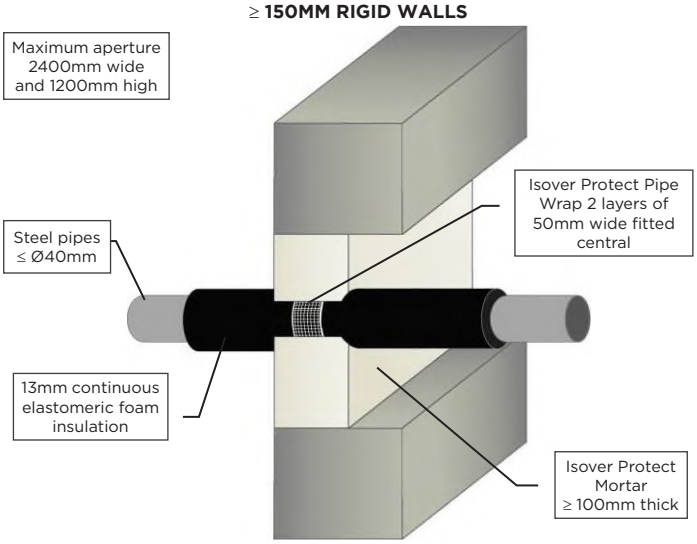
PLASTIC CONDUITS FIRE RESISTANCE EI 240 C/U (E 240)

≥ 150MM RIGID WALLS



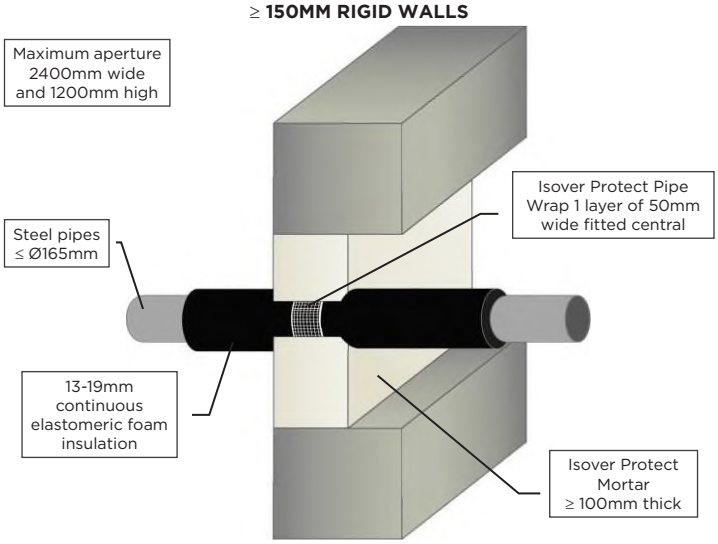
INSULATED STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)

≥ 150MM RIGID WALLS



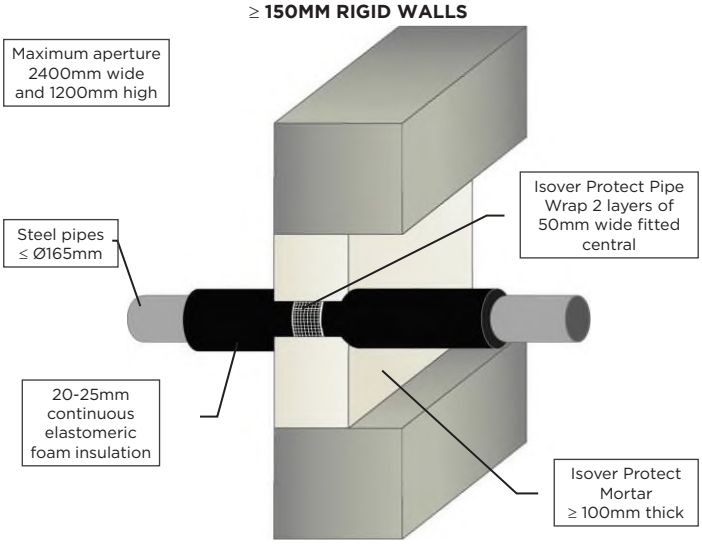
INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 240)

≥ 150MM RIGID WALLS



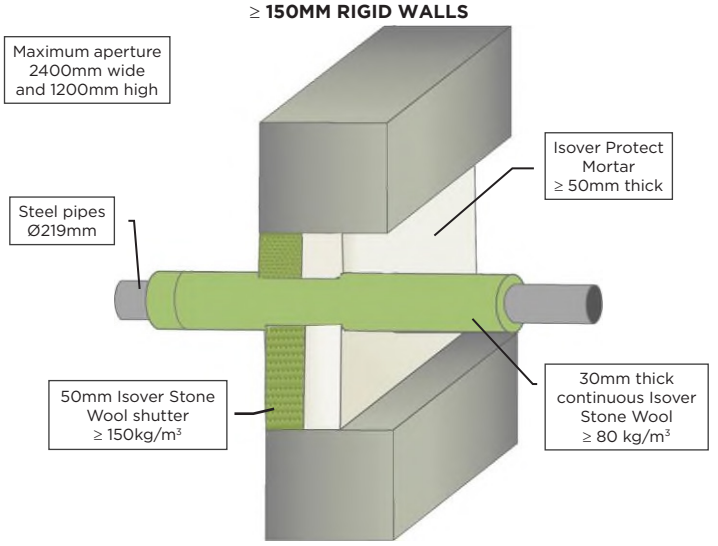
INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 180)

≥ 150MM RIGID WALLS



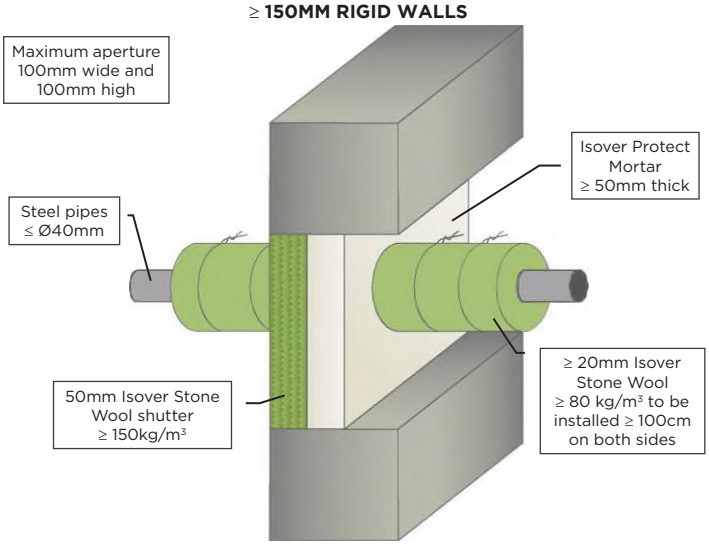
INSULATED STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)

≥ 150MM RIGID WALLS



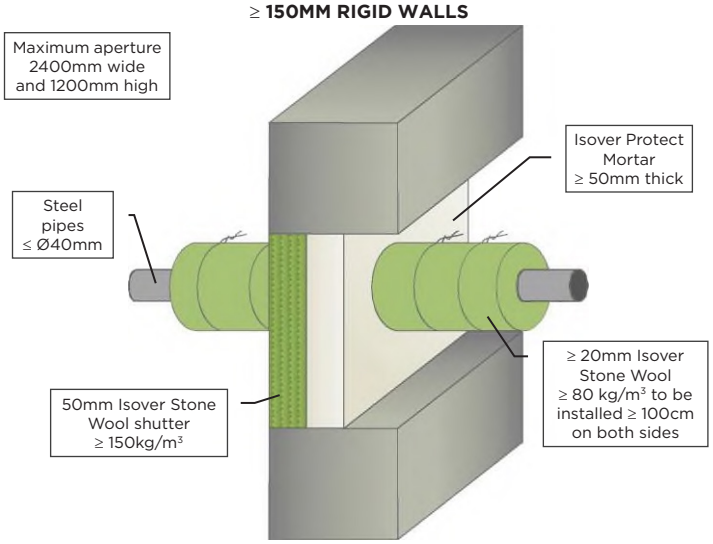
STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)

≥ 150MM RIGID WALLS



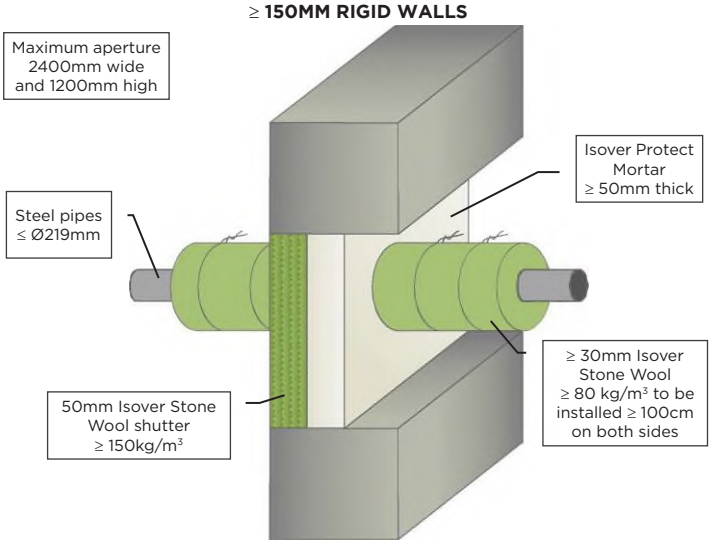
STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 180)

≥ 150MM RIGID WALLS



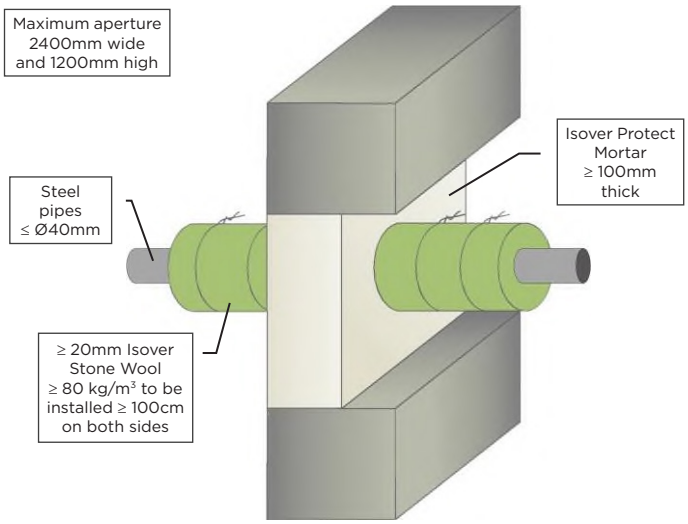
STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)

≥ 150MM RIGID WALLS



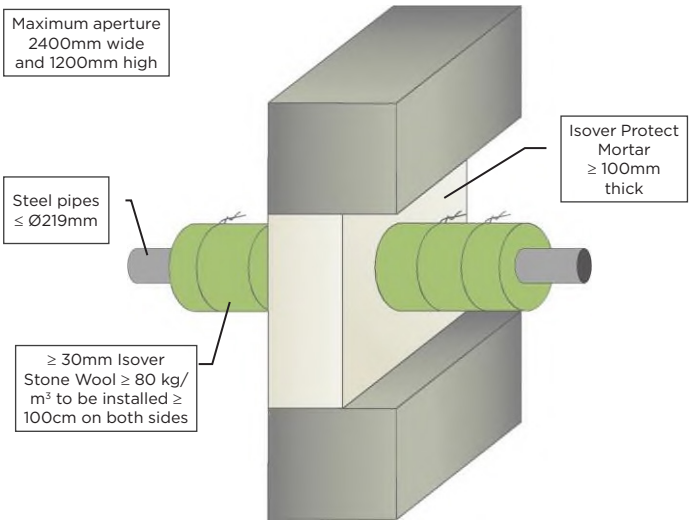
STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)

≥ 150MM RIGID WALLS



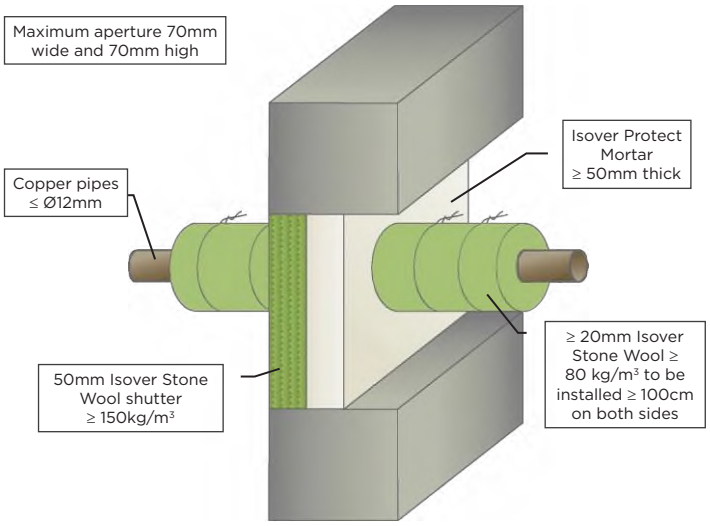
STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 240)

≥ 150MM RIGID WALLS



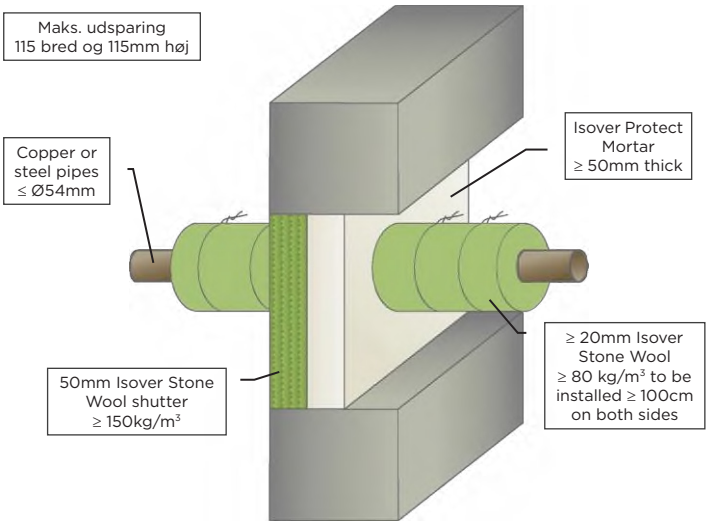
COPPER PIPES FIRE RESISTANCE EI 240 C/C (E 240)

≥ 150MM RIGID WALLS



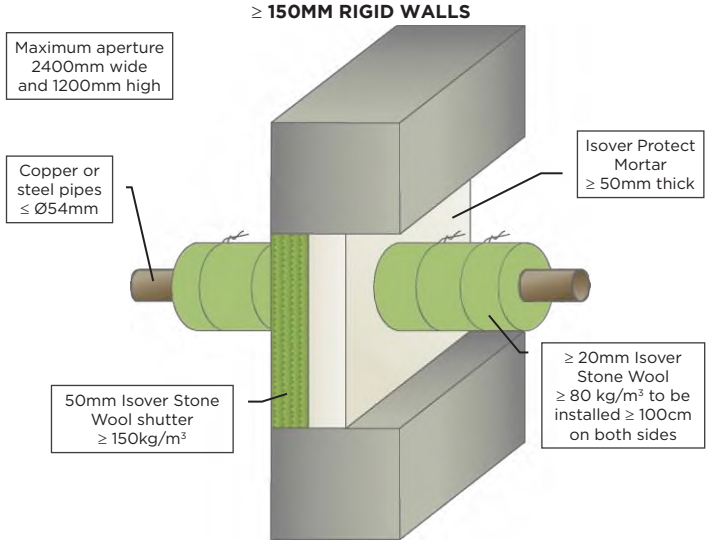
COPPER OR STEEL PIPES FIRE RESISTANCE EI 120 C/C (E 240)

≥ 150MM RIGID WALLS



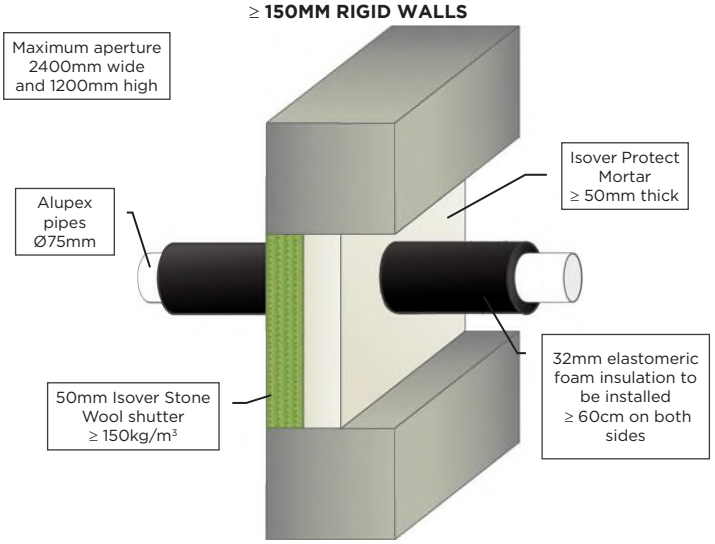
COPPER OR STEEL PIPES FIRE RESISTANCE EI 120 C/C (E 180)

≥ 150MM RIGID WALLS



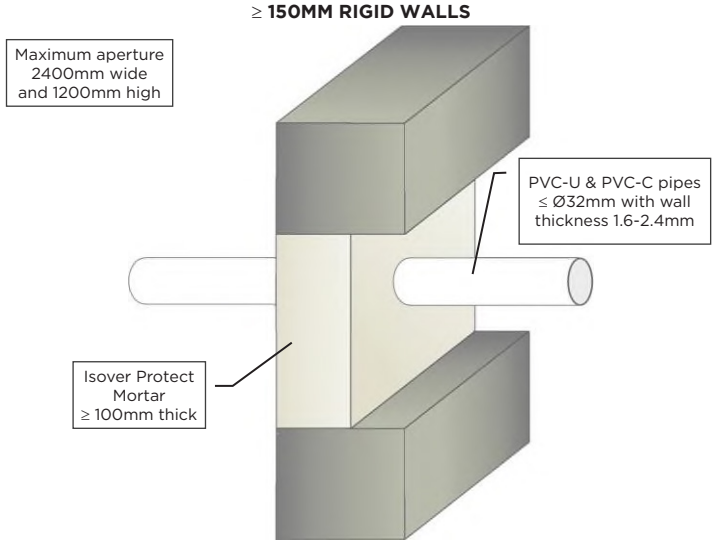
ALUPEX PIPES FIRE RESISTANCE EI 60 C/C (E 60)

≥ 150MM RIGID WALLS



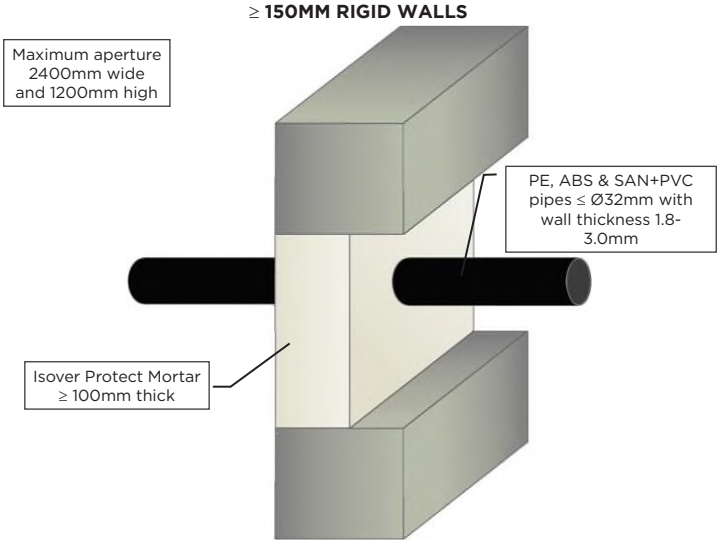
PVC PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 150MM RIGID WALLS



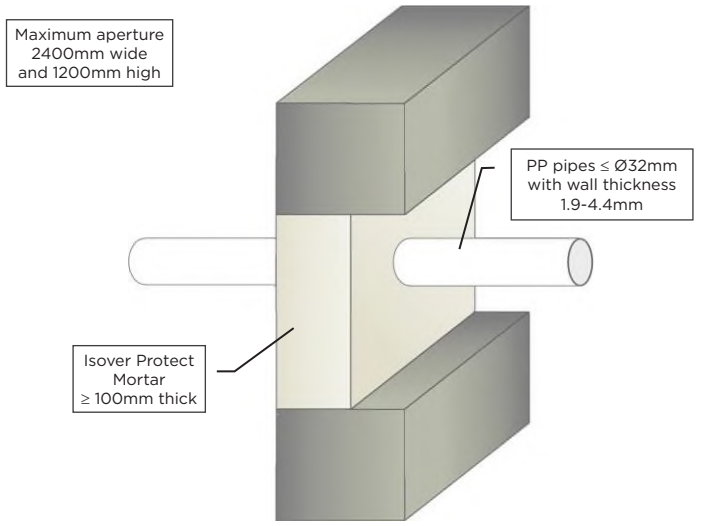
PE & ABS PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 150MM RIGID WALLS



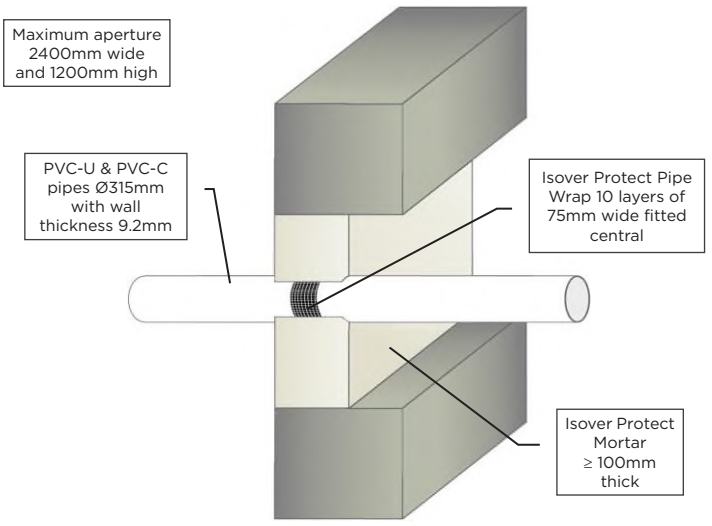
PP PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 150MM RIGID WALLS



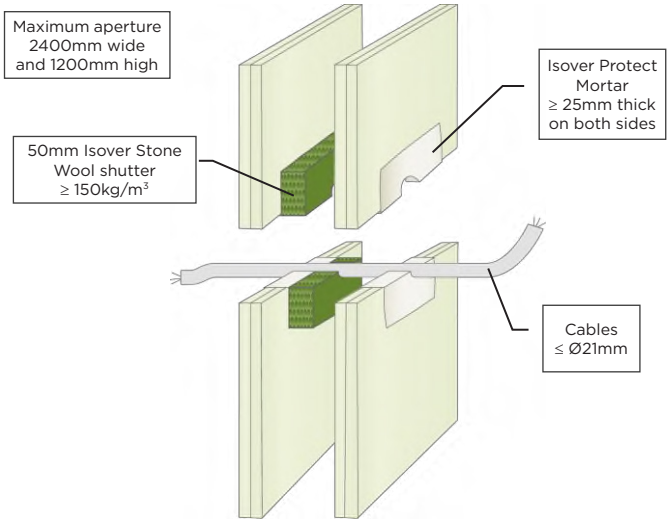
PLASTIC PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 150MM RIGID WALLS



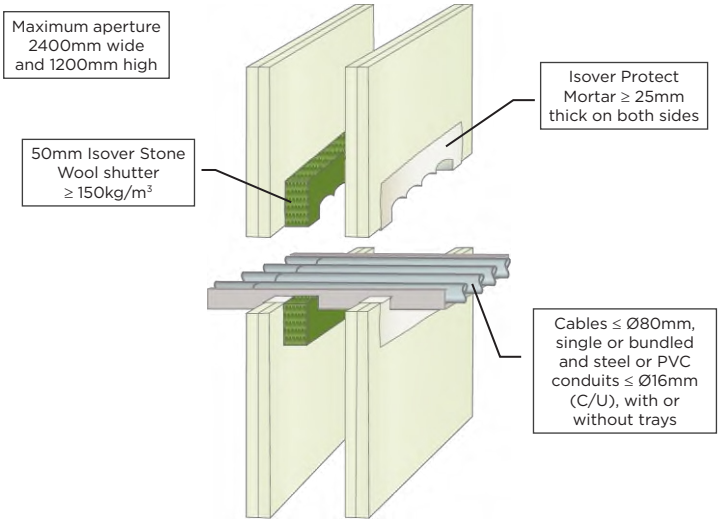
CABLES FIRE RESISTANCE EI 90 (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



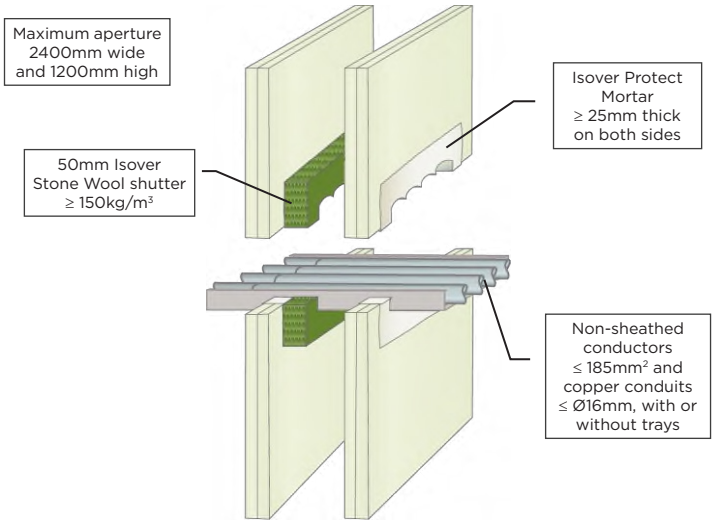
CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



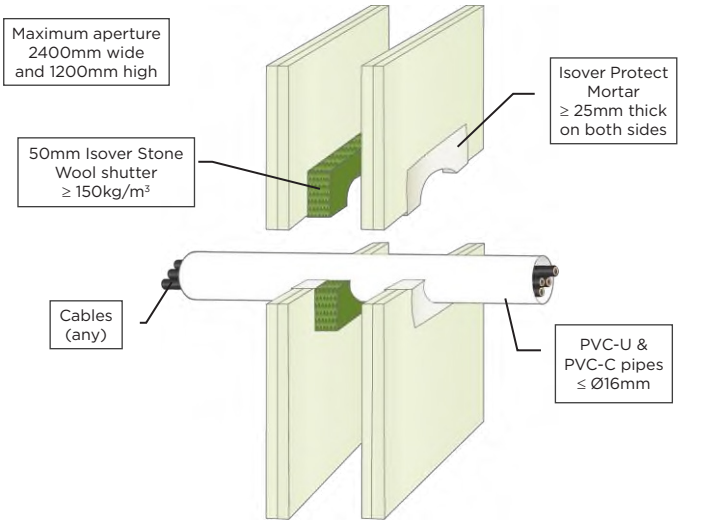
CABLES AND CABLE TRAYS FIRE RESISTANCE EI 45 (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



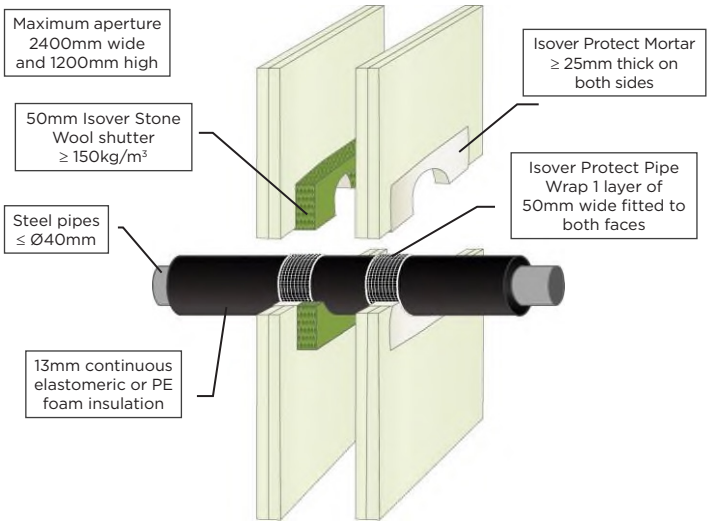
PLASTIC CONDUITS FIRE RESISTANCE EI 120 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



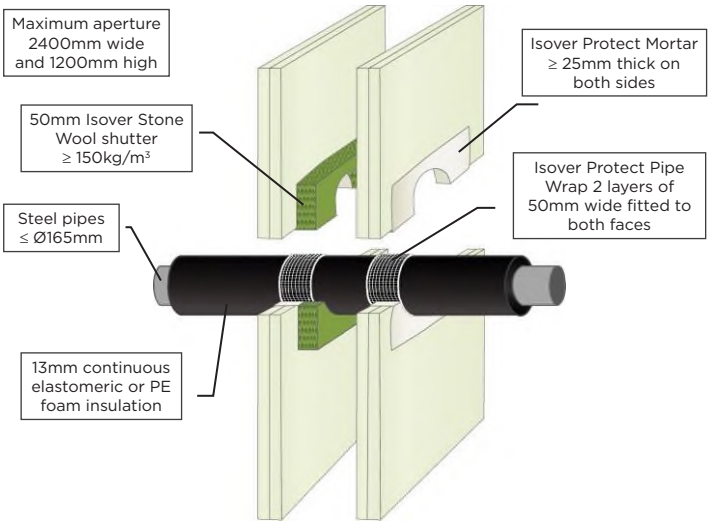
INSULATED STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



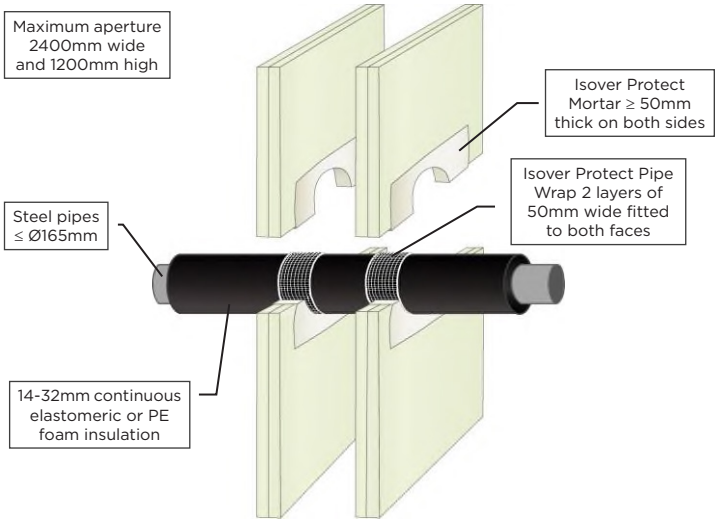
INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



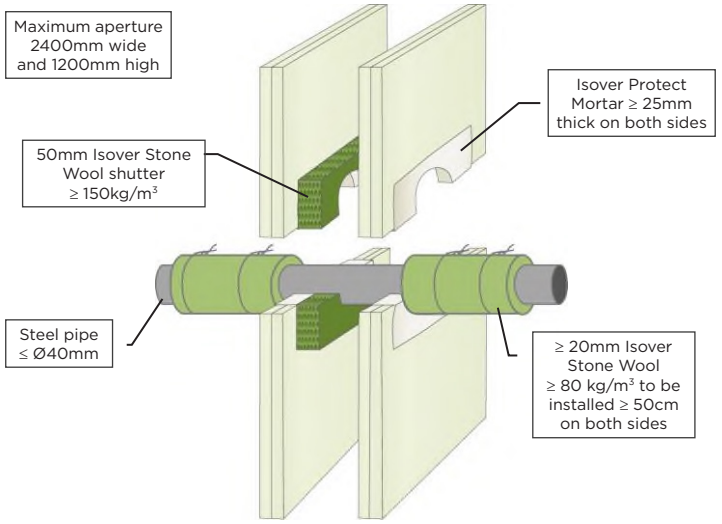
INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



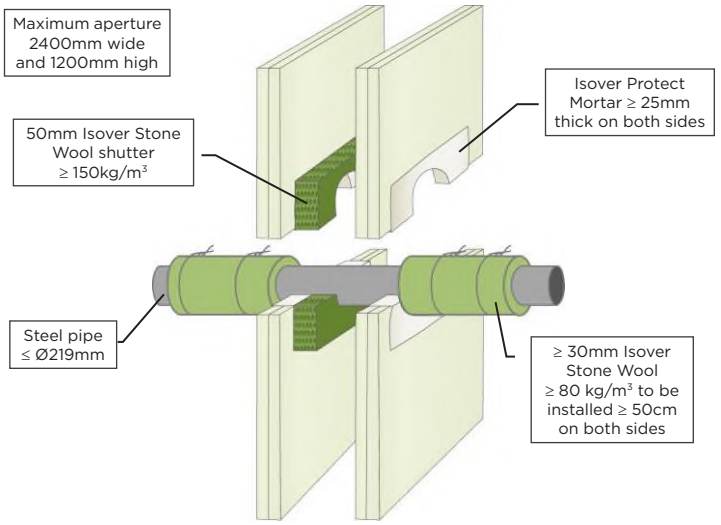
STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



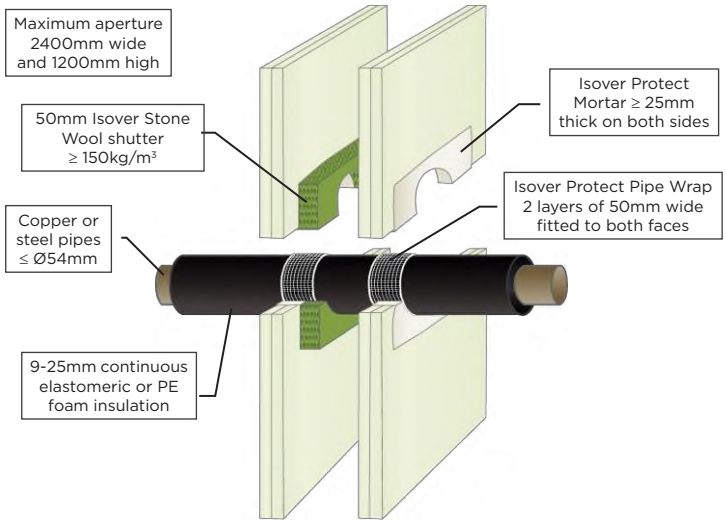
STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



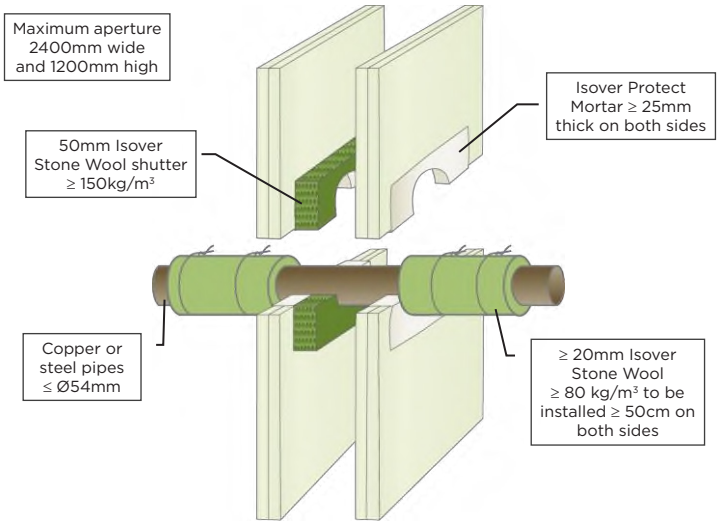
COPPER OR STEEL PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



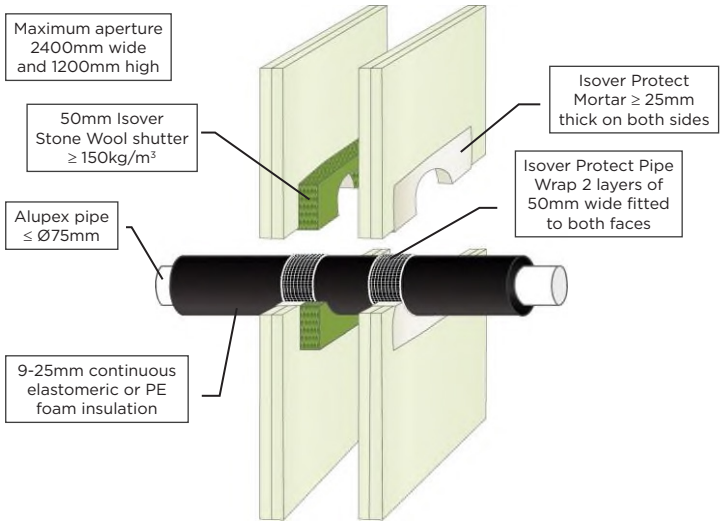
COPPER OR STEEL PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



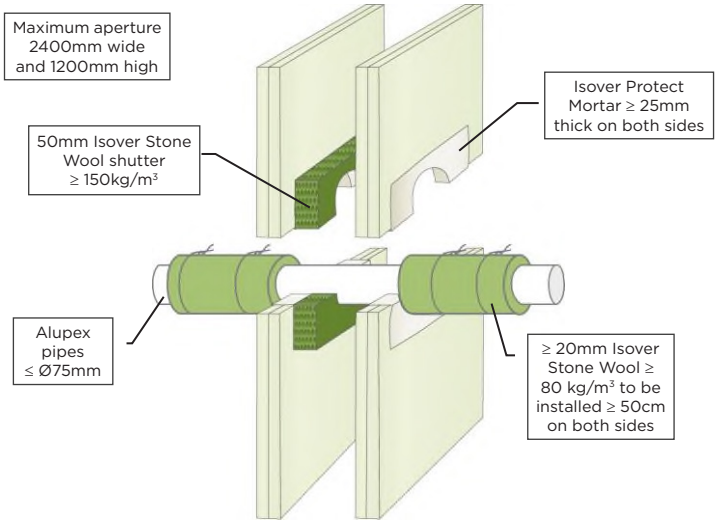
INSULATED ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



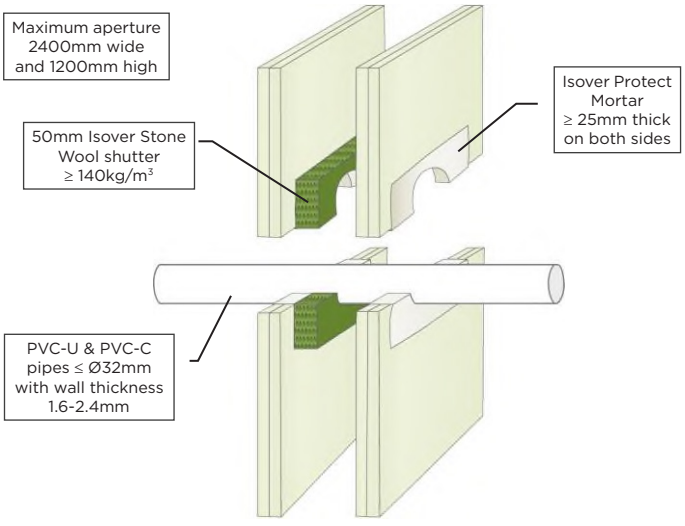
ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



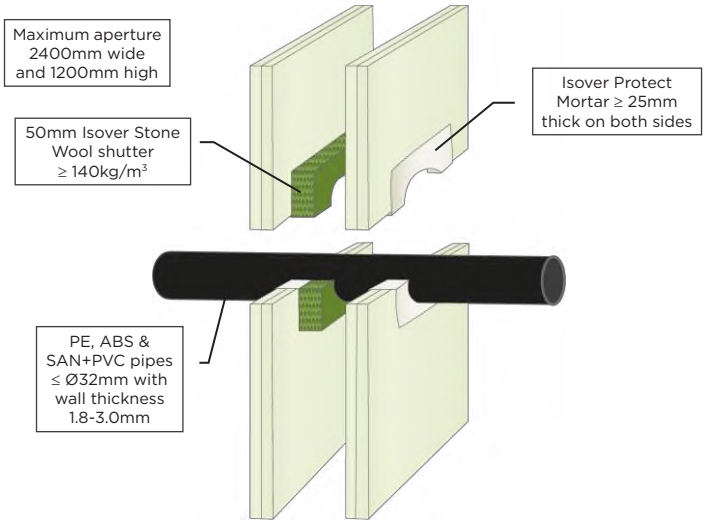
PVC PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



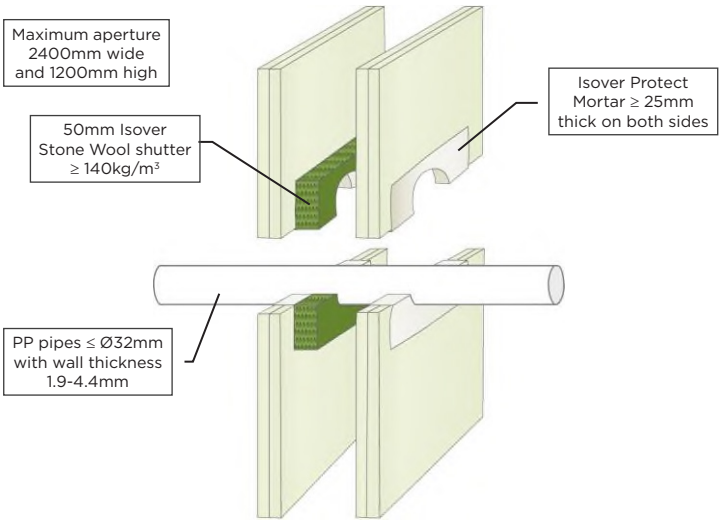
PE & ABS PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



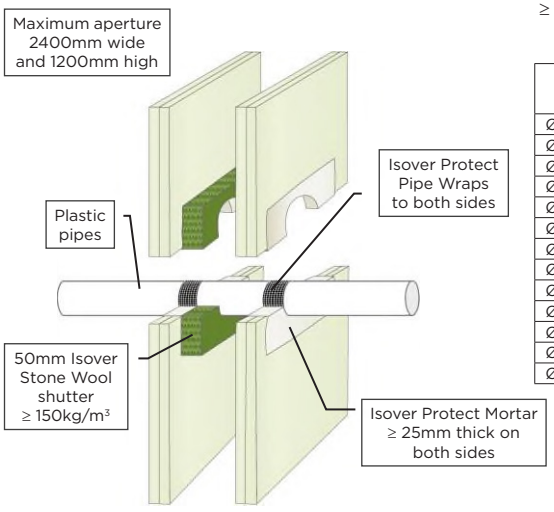
PP PIPES FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS OR RIGID WALLS



PLASTIC PIPES FIRE RESISTANCE EI 60-120

≥ 100MM DRYWALLS OR RIGID WALLS



Services	Pipe Wall Thickness	Isover Protect Pipe Wrap	Classification
Ø ≤ 40mm PVC-U og PVC-C	3,0 - 4,3mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 120 U/C)
Ø ≤ 40mm PE, ABS og SAN+PVC	3.2 - 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/C (E 120 U/C)
Ø ≤ 40mm PP	4.0 - 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/C (E 120 U/C)
Ø ≤ 110mm PVC-U og PVC-C	2.7 - 6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø ≤ 110mm PE, ABS og SAN+PVC	4.2 - 10.0mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø ≤ 110mm PP	6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø ≤ 125mm PVC-U og PVC-C	3.7 - 7.4mm	50 x 5.4mm (3 layers)	EI 120 U/C (E 120 U/C)
Ø ≤ 125mm PE, ABS og SAN+PVC	12.0mm	50 x 5.4mm (3 layers)	EI 120 U/C (E 120 U/C)
Ø ≤ 125mm PP	17.1mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
Ø ≤ 160mm PVC-U og PVC-C	3.2 - 9.5mm	50 x 7.2mm (4 layers)	EI 60 U/C (E 60 U/C)
Ø ≤ 160mm PE, ABS og SAN+PVC	12.0mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
Ø ≤ 160mm PP	21.9mm	50 x 7.2mm (4 layers)	EI 60 U/C (E 60 U/C)
Ø ≤ 160mm PP	4.0 - 21.9mm	50 x 7.2mm (4 layers)	(E 120 U/C)

The information in this publication is consistent with current knowledge and our experiences at the time of printing (refer to the print note on the right side). Knowledge and experience are constantly evolving. Therefore, you must ensure to use the latest version of this publication. The described applications of the products cannot consider all the specific circumstances of each individual case. Therefore, you should verify the suitability of our products for the intended purpose. Our Technical Advisory is happy to answer any questions.

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