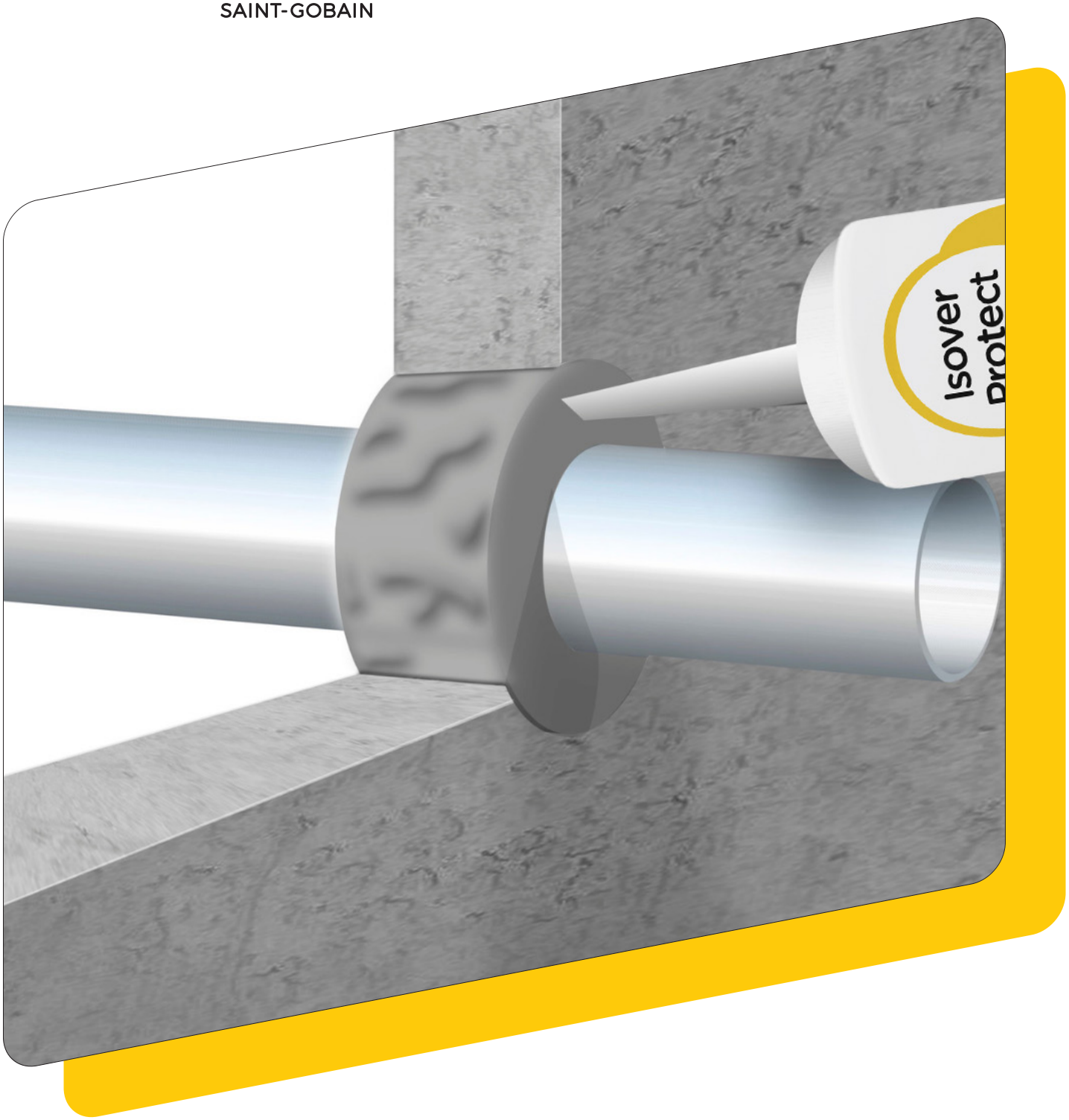
isover
SAINT-GOBAIN



Isover Protect Graphite

Fire stopping & sealing

Installation Instructions

SAINT-GOBAIN

INDEX

INDEX - TECHNICAL DRAWINGS

General Guide

Isover Protect Graphite is designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors. Isover Protect Graphite should be applied over suitable backing materials to ensure correct width to depth ratio, and to reduce shrinkage of the joint during hardening.

Minimum separations and limitations: Services can be sealed as specified in the detailed drawings. Minimum separation between services and the edge of the seal within each aperture must be 10 mm to allow for correct fitting of backing and seal depth. Minimum separation between apertures should be at least 30 mm, except in timber floors where apertures can be placed linear with no required separation. For larger apertures other than described in the detailed drawings, Isover Protect Coated Board or Isover Protect Mortar should be used.

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. Timber walls must have a minimum thickness of 100 mm and comprise solid wood or cross-laminated timber. 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 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m3. Timber floors must have a minimum thickness of 150 mm and comprise solid wood or cross-laminated timber. The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

*) 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.

Installation

1 Before installing Isover Protect Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.

2. As Isover Protect Graphite is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.

3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.

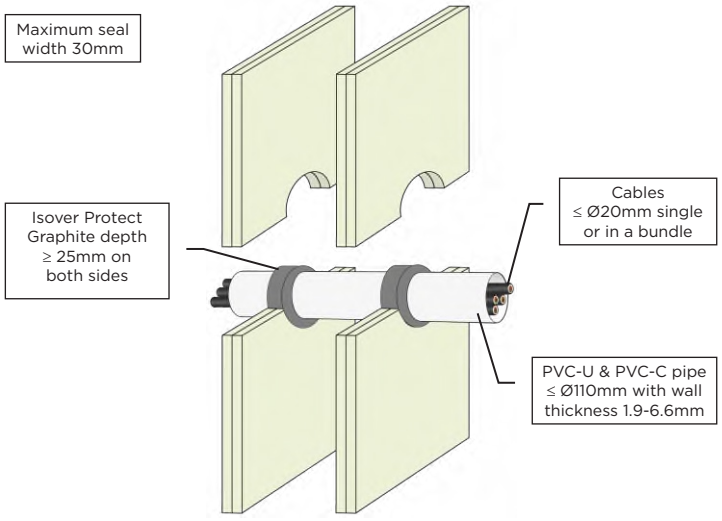
4. Fill the gap or joint with Isover Protect Graphite to the required depth. Refer to the drawings for guidance on joint design/dimensions.

5. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/ smoothing as this may make the seal surface wet and soft.

6. Isover Protect Graphite can be over-painted with most emulsion or alkyd (gloss) paints.

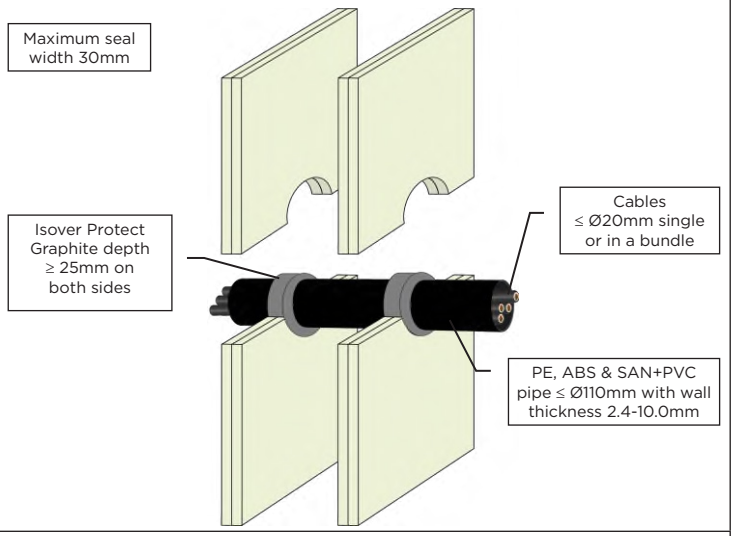
PVC CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



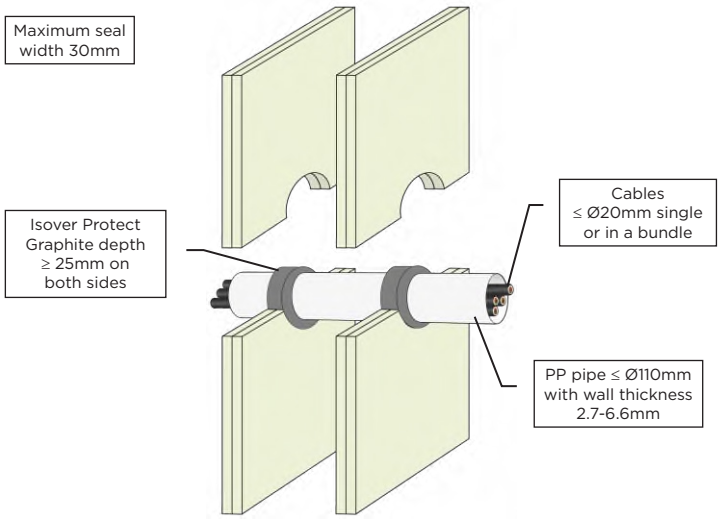
PE CONDUIT FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



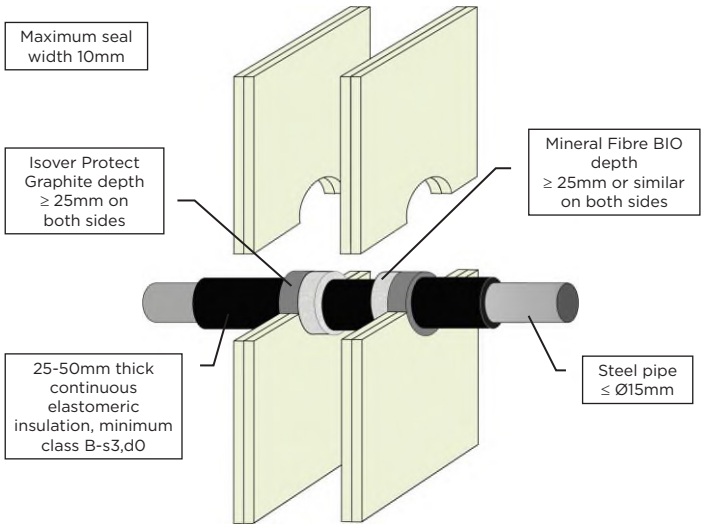
PP CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



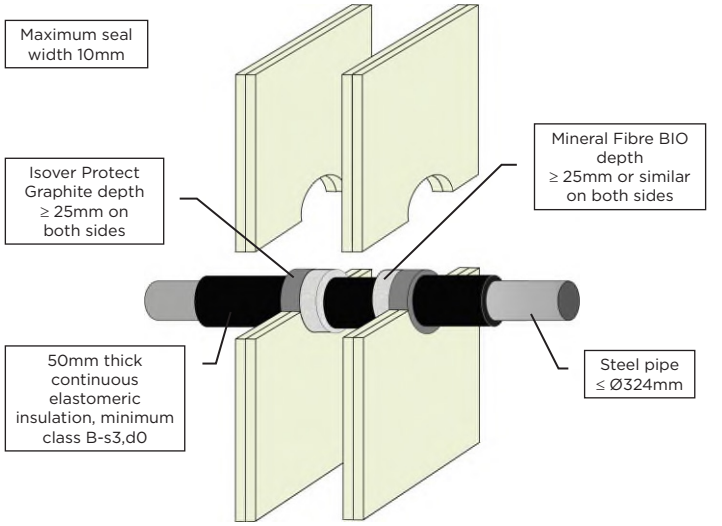
STEEL PIPE FIRE RESISTANCE EI 60 C/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



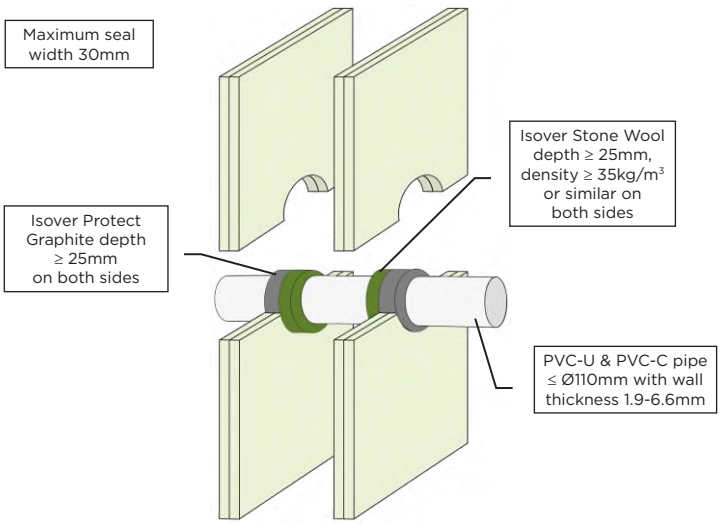
STEEL PIPE FIRE RESISTANCE EI 60 C/U (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



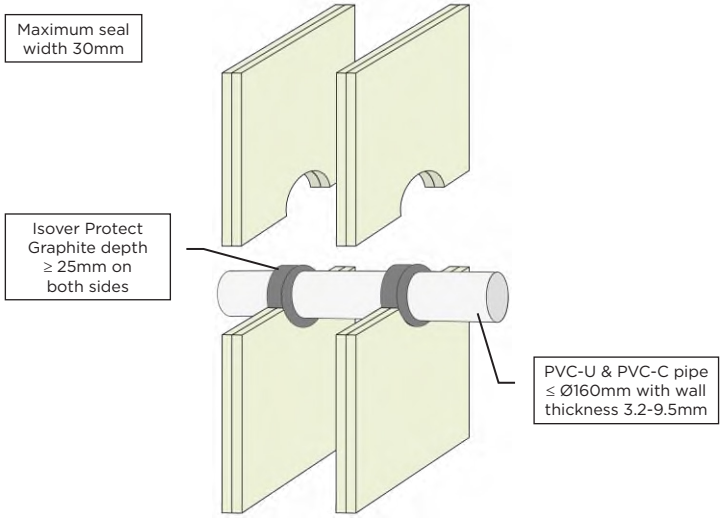
PVC PIPE FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



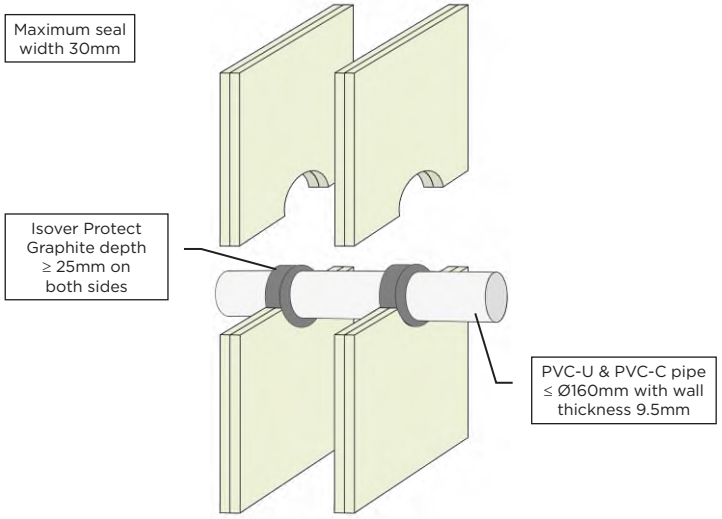
PVC PIPE FIRE RESISTANCE EI 30 U/C (E 30)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



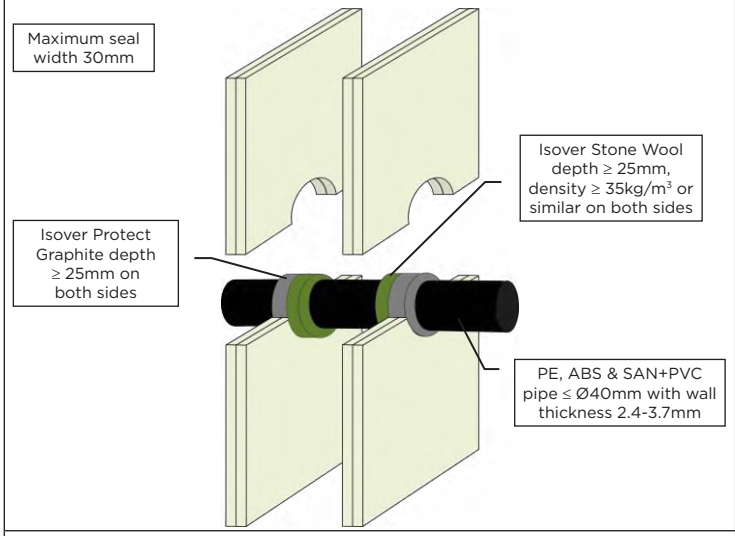
PVC PIPE FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



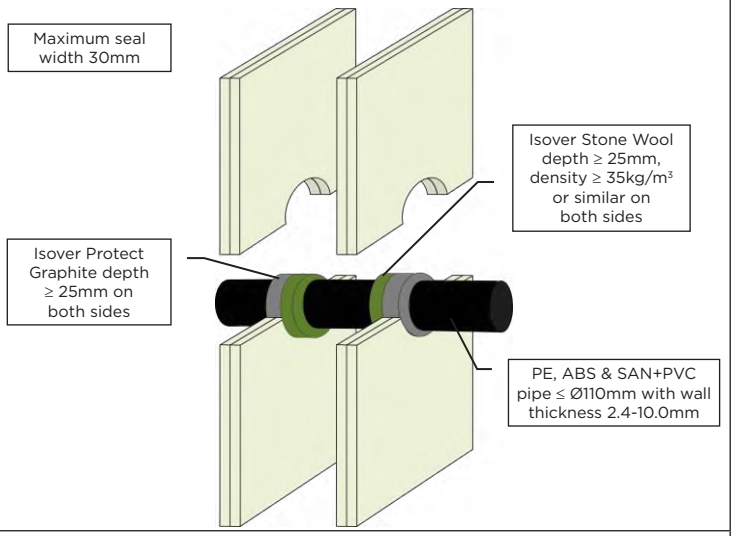
PE PIPE FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



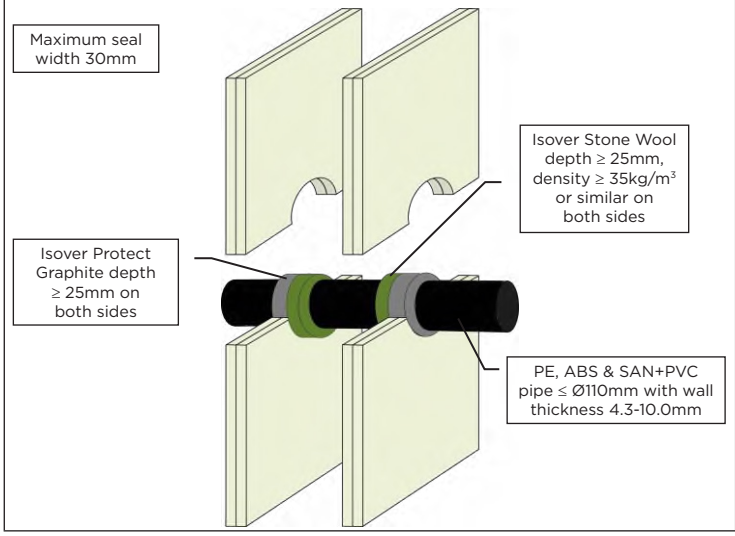
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



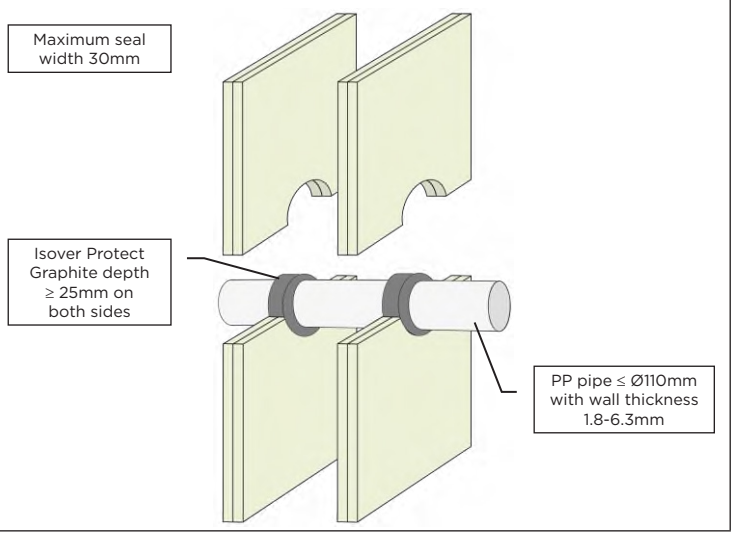
PE PIPE FIRE RESISTANCE EI 90 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



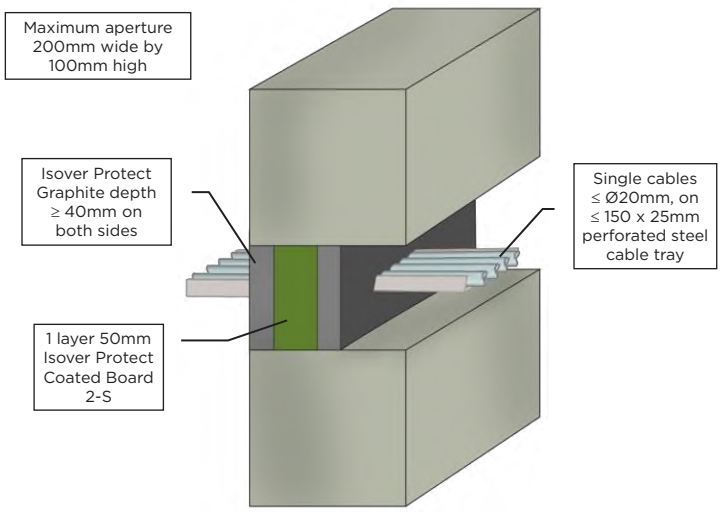
PP PIPE FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



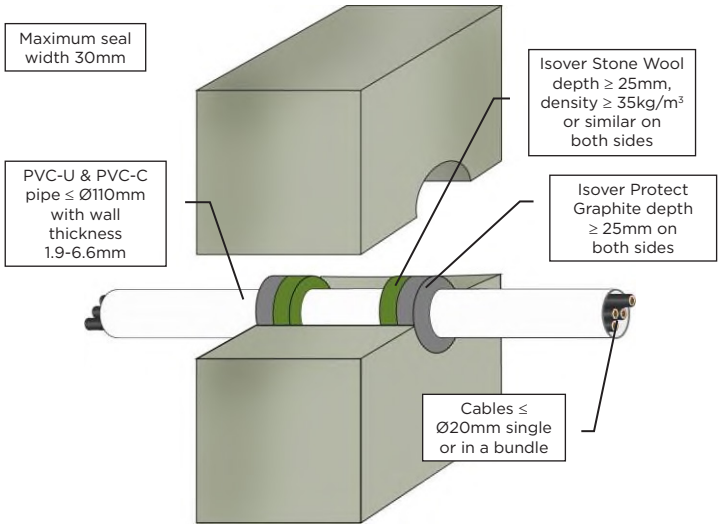
CABLES AND CABLE TRAY FIRE RESISTANCE EI 180 (E 240)

≥ 150MM MASONRY OR CONCRETE WALLS



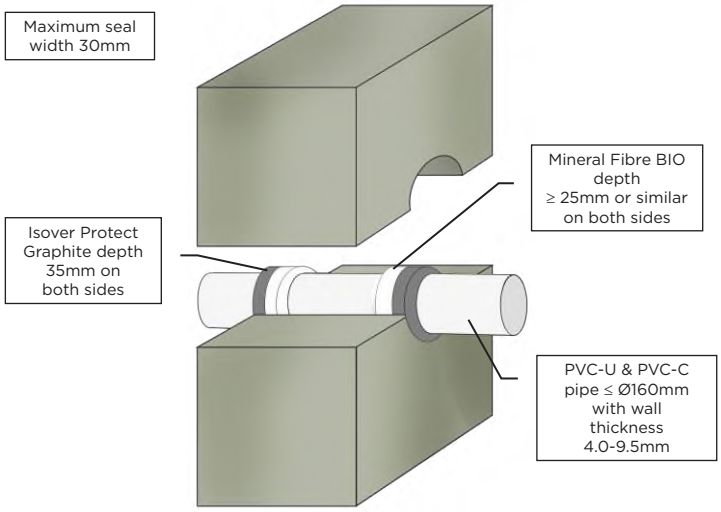
PVC CONDUIT FIRE RESISTANCE EI 120 U/C (E 120)

≥ 150MM MASONRY OR CONCRETE WALLS



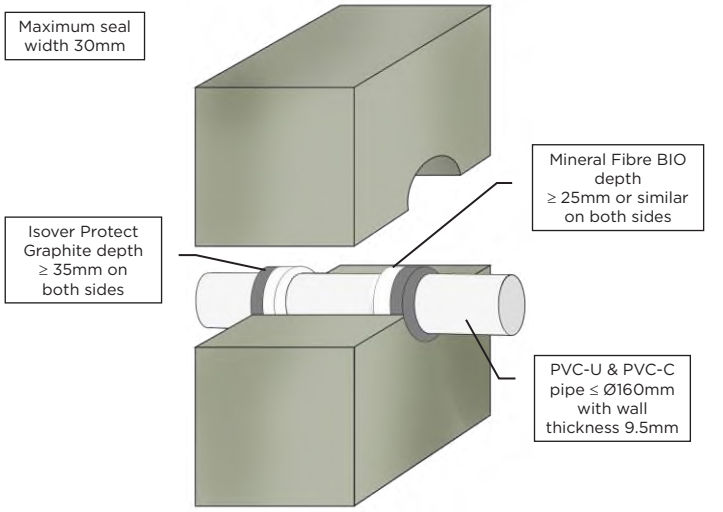
PVC PIPE FIRE RESISTANCE EI 90 U/C (E 90)

≥ 150MM MASONRY OR CONCRETE WALLS



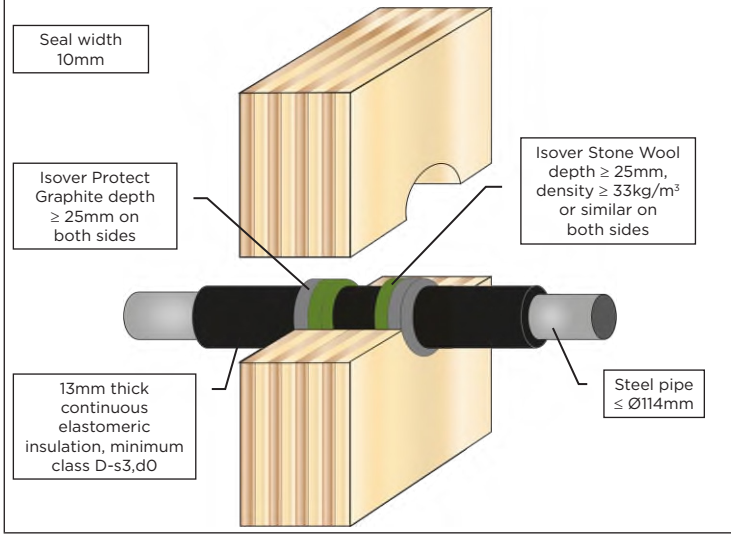
PVC PIPE FIRE RESISTANCE EI 180 U/C (E 240)

≥ 150MM MASONRY OR CONCRETE WALLS



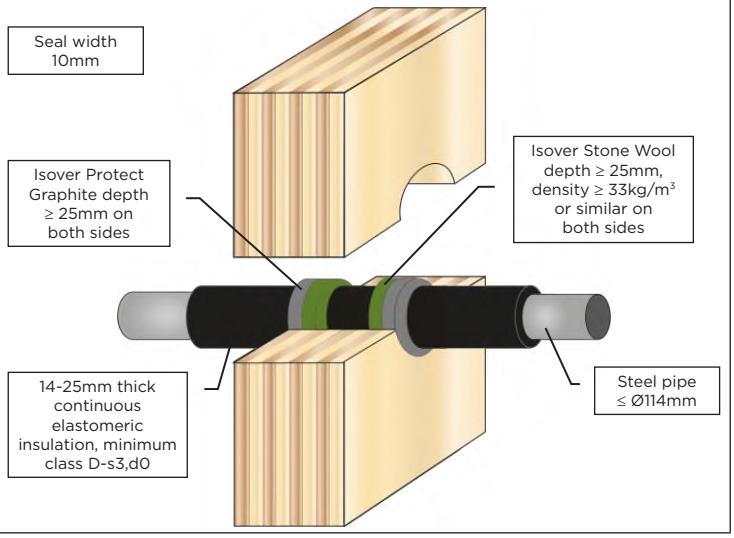
INSULATED STEEL PIPE FIRE RESISTANCE EI 90 C/C (E 90)

≥ 100MM TIMBER WALLS



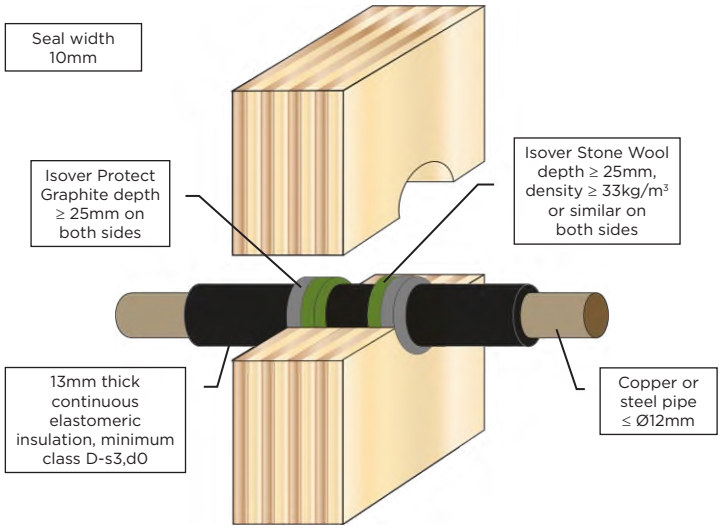
INSULATED STEEL PIPE FIRE RESISTANCE EI 45 C/C (E 90)

≥ 100MM TIMBER WALLS



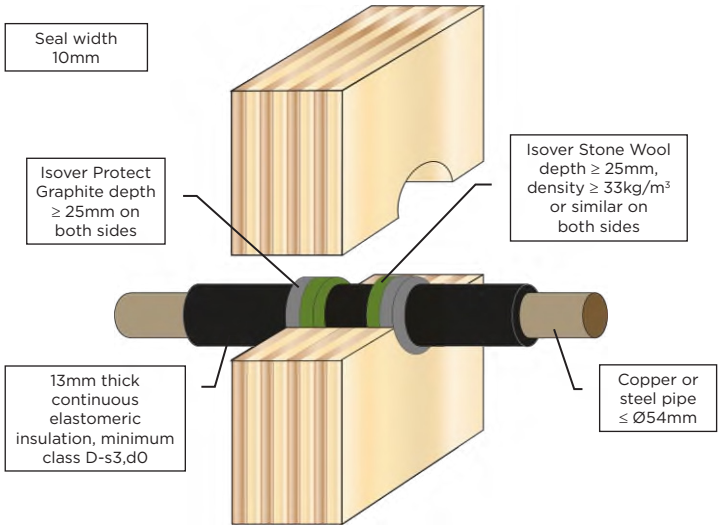
INSULATED COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM TIMBER WALLS



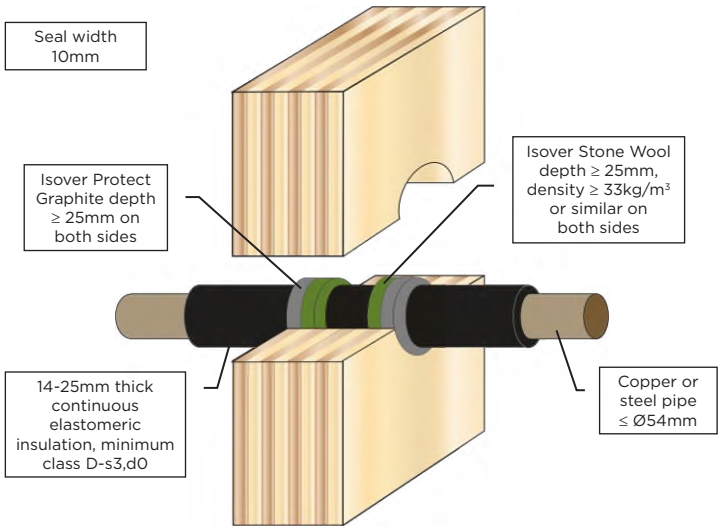
INSULATED COPPER PIPE FIRE RESISTANCE EI 90 C/C (E 120)

≥ 100MM TIMBER WALLS



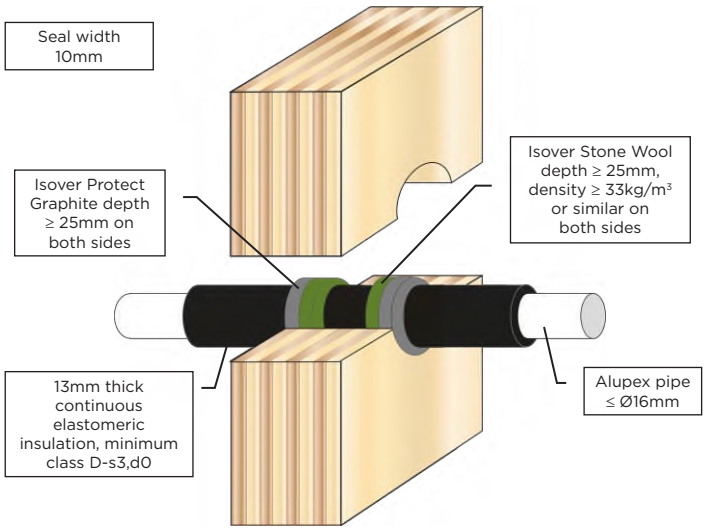
INSULATED COPPER PIPE FIRE RESISTANCE EI 30 C/C (E 120)

≥ 100MM TIMBER WALLS



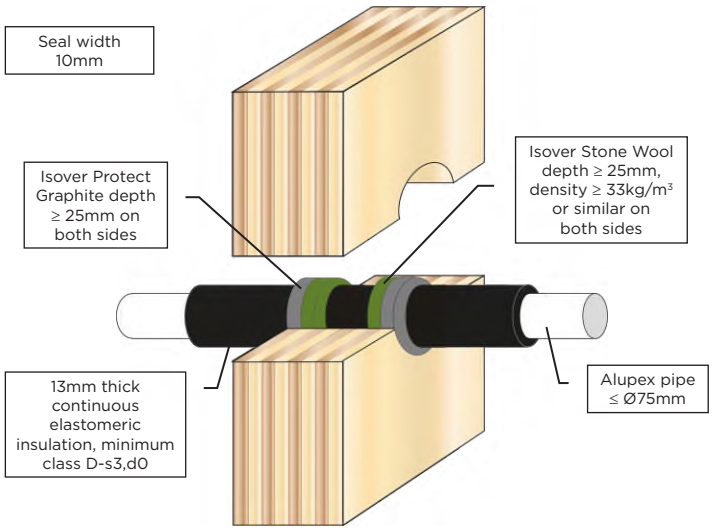
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM TIMBER WALLS



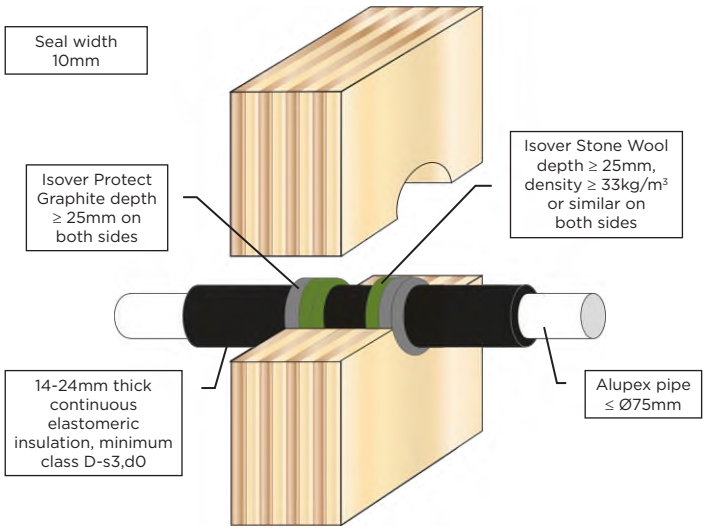
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 45 C/C (E 120)

≥ 100MM TIMBER WALLS



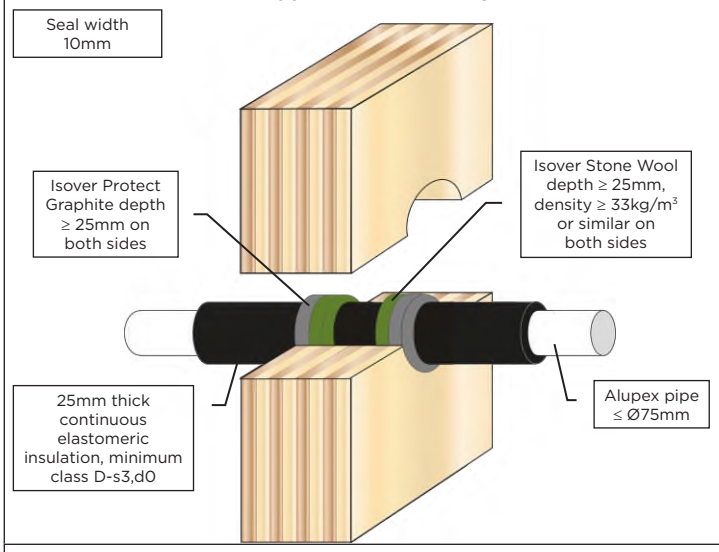
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 45 C/C (E 90)

≥ 100MM TIMBER WALLS



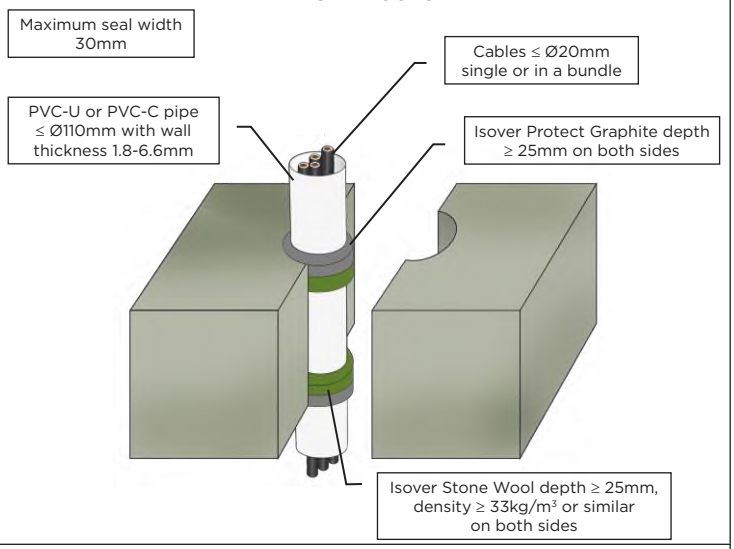
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 90 C/C (E 90)

≥ 100MM TIMBER WALLS



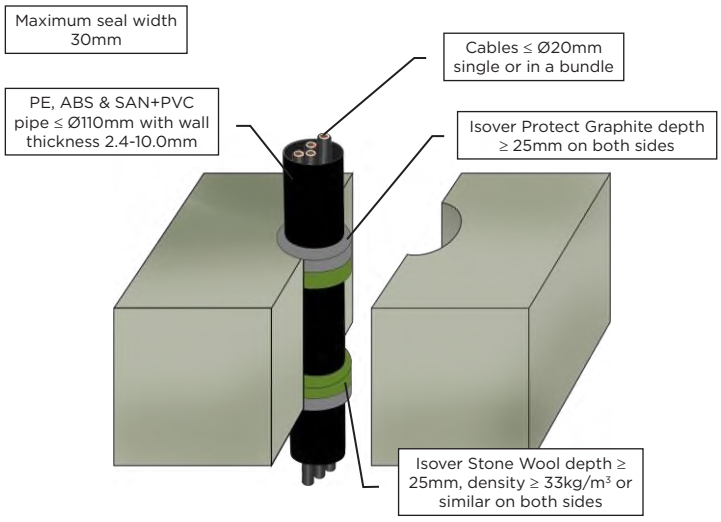
PVC CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS



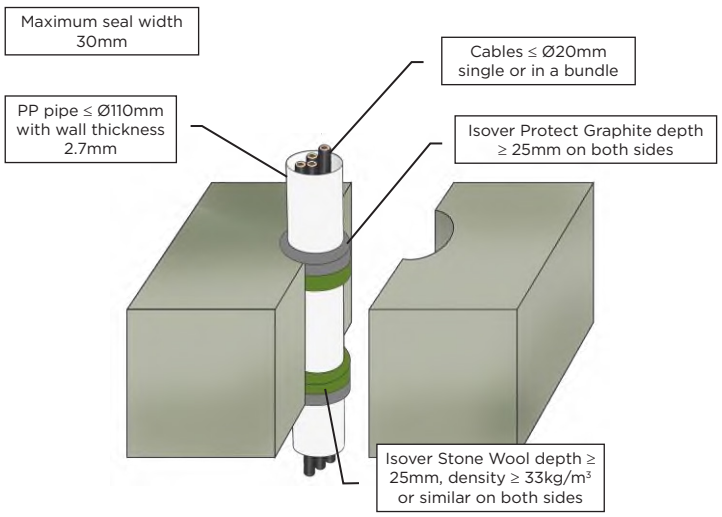
PE CONDUIT FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



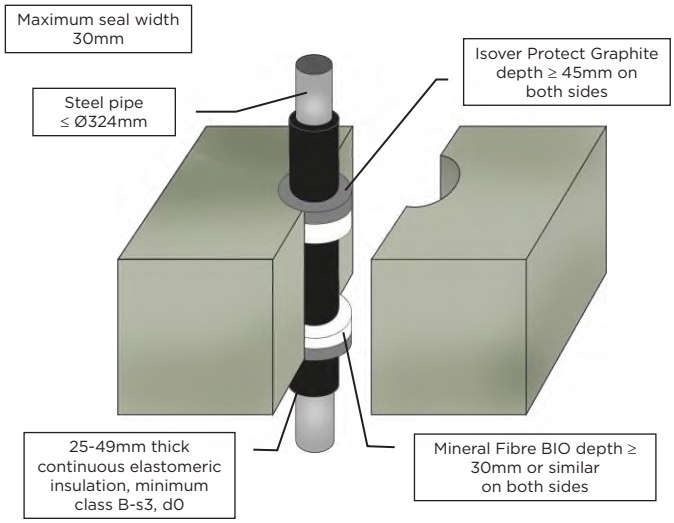
PP CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS



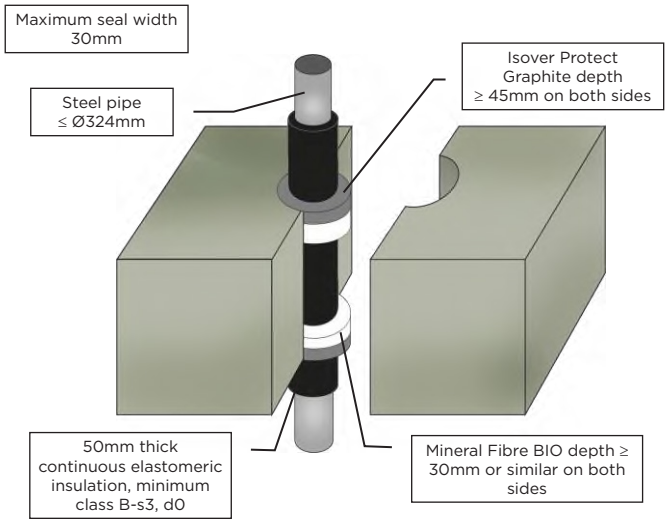
INSULATED STEEL PIPE FIRE RESISTANCE EI 60 C/U (E 60)

RIGID FLOORS



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

RIGID FLOORS



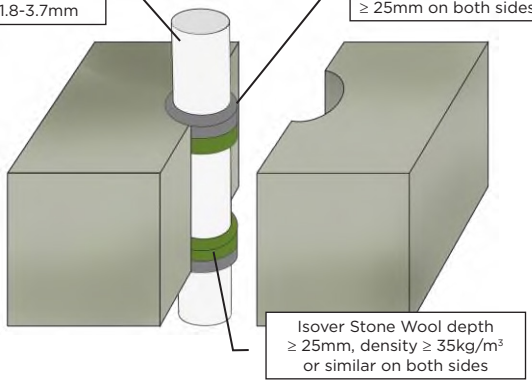
PVC PIPE FIRE RESISTANCE EI 240 U/U (E 240)

RIGID FLOORS

Maximum seal width 30mm

PVC-U or PVC-C pipe ≤ Ø40mm with wall thickness 1.8-3.7mm

Isover Protect Graphite depth ≥ 25mm on both sides



Isover Stone Wool depth ≥ 25mm, density ≥ 35kg/m³ or similar on both sides

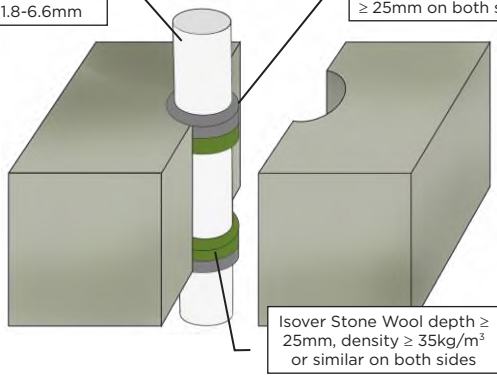
PVC PIPE FIRE RESISTANCE EI 90 C/U (E 90)

RIGID FLOORS

Maximum seal width 30mm

PVC-U or PVC-C pipe ≤ Ø110mm with wall thickness 1.8-6.6mm

Isover Protect Graphite depth ≥ 25mm on both sides



Isover Stone Wool depth ≥ 25mm, density ≥ 35kg/m³ or similar on both sides

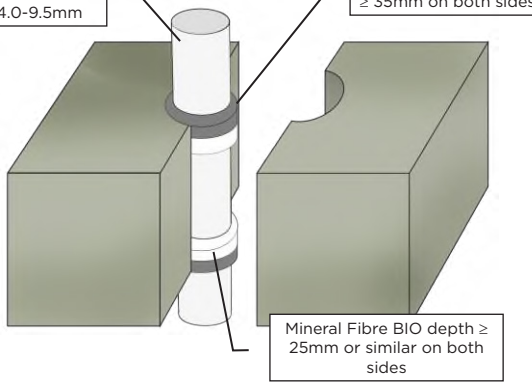
PVC PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS

Maximum seal width 30mm

PVC-U or PVC-C pipe ≤ Ø160mm with wall thickness 4.0-9.5mm

Isover Protect Graphite depth ≥ 35mm on both sides



Mineral Fibre BIO depth ≥ 25mm or similar on both sides

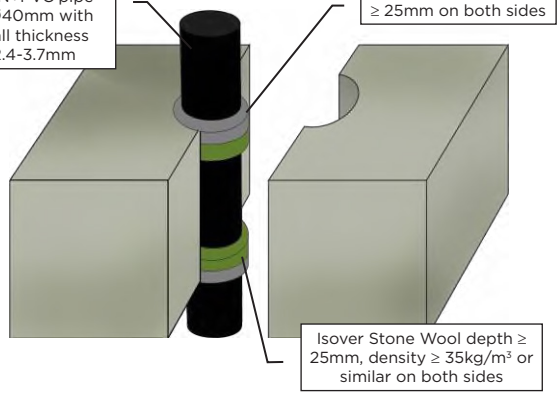
PE PIPE FIRE RESISTANCE EI 60 U/U & EI 240 U/C (E 60/240)

RIGID FLOORS

Maximum seal width 30mm

PE, ABS & SAN+PVC pipe ≤ Ø40mm with wall thickness 2.4-3.7mm

Isover Protect Graphite depth ≥ 25mm on both sides



Isover Stone Wool depth ≥ 25mm, density ≥ 35kg/m³ or similar on both sides

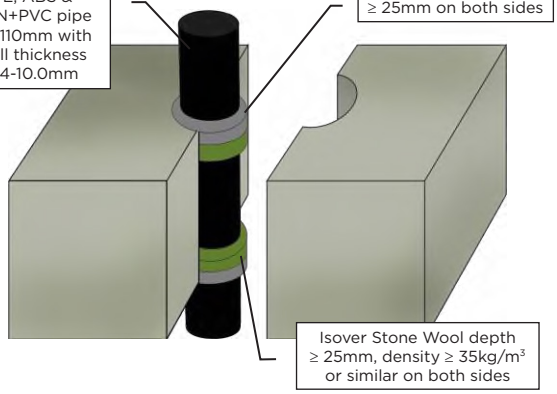
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS

Maximum seal width 30mm

PE, ABS & SAN+PVC pipe ≤ Ø110mm with wall thickness 2.4-10.0mm

Isover Protect Graphite depth ≥ 25mm on both sides



Isover Stone Wool depth ≥ 25mm, density ≥ 35kg/m³ or similar on both sides

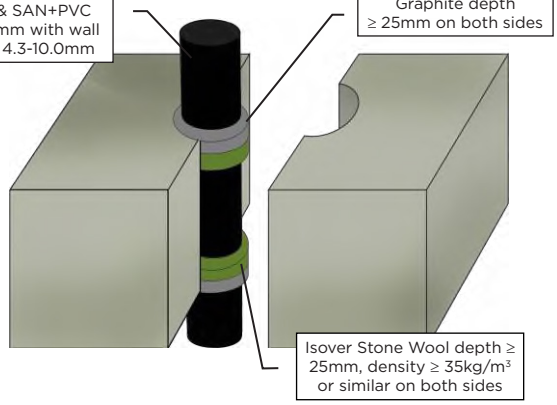
PE PIPE FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS

Maximum seal width 30mm

PE, ABS & SAN+PVC pipe Ø110mm with wall thickness 4.3-10.0mm

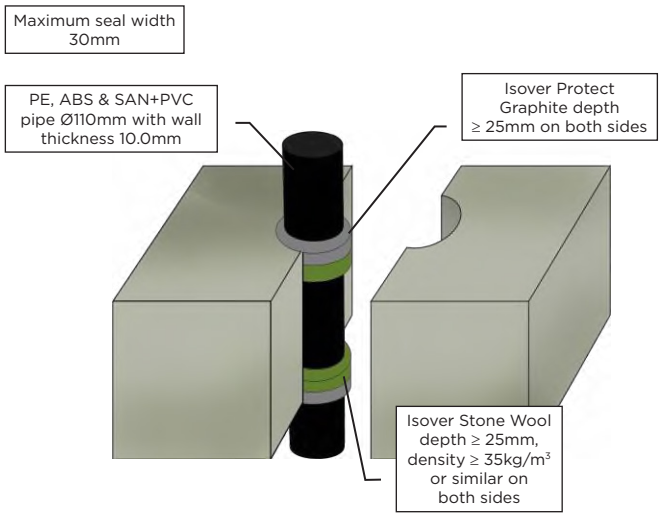
Isover Protect Graphite depth ≥ 25mm on both sides



Isover Stone Wool depth ≥ 25mm, density ≥ 35kg/m³ or similar on both sides

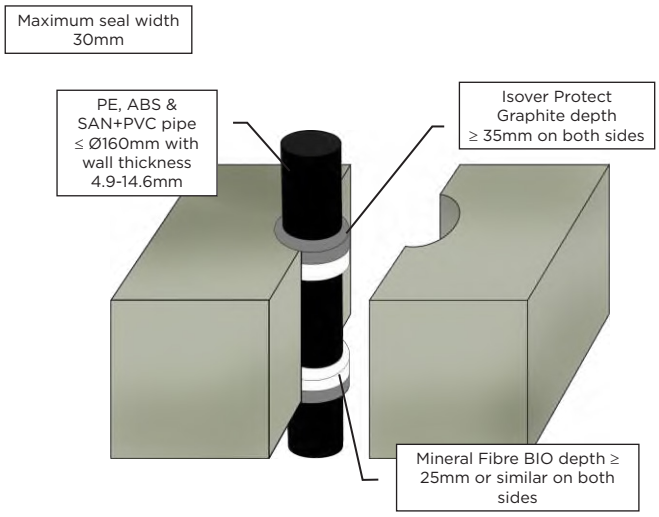
PE PIPE FIRE RESISTANCE EI 60 U/U (E 60)

RIGID FLOORS



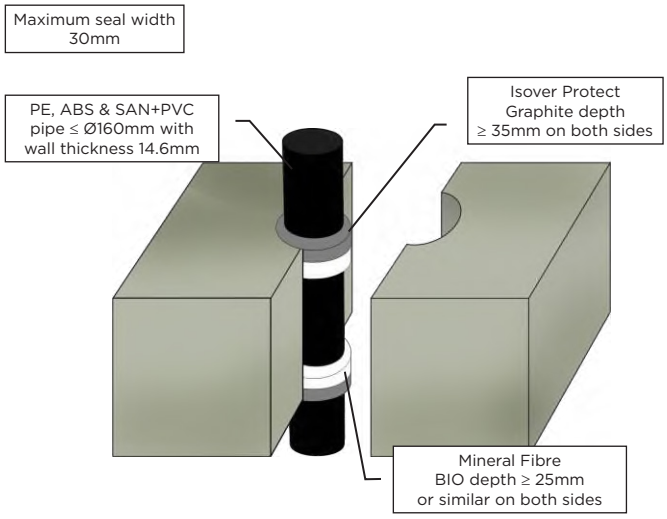
PE PIPE FIRE RESISTANCE EI 30 U/C (E 30)

RIGID FLOORS



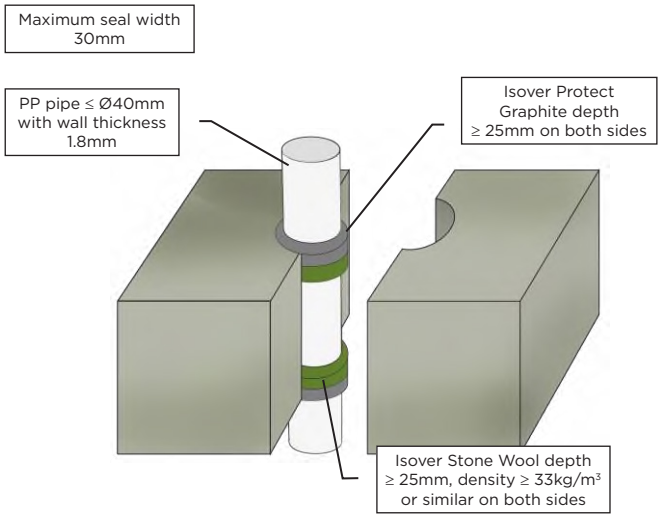
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



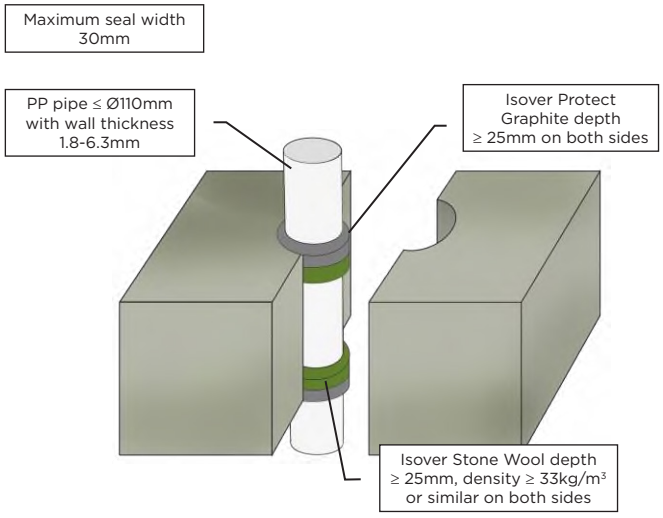
PP PIPE FIRE RESISTANCE EI 120 C/C (E 120)

RIGID FLOORS



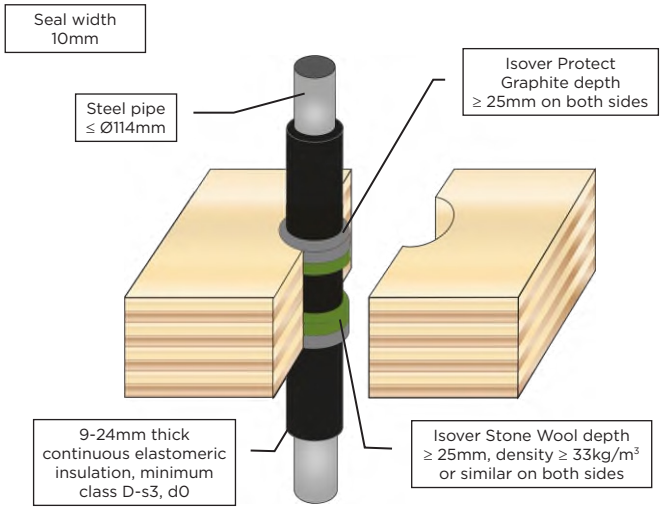
PP PIPE FIRE RESISTANCE EI 30 U/C (E 30)

RIGID FLOORS



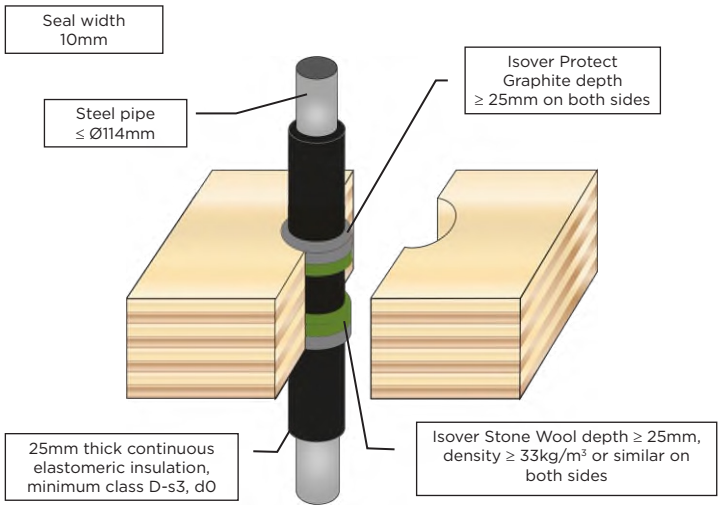
INSULATED STEEL PIPE FIRE RESISTANCE EI 45 C/C (E 120)

TIMBER FLOORS



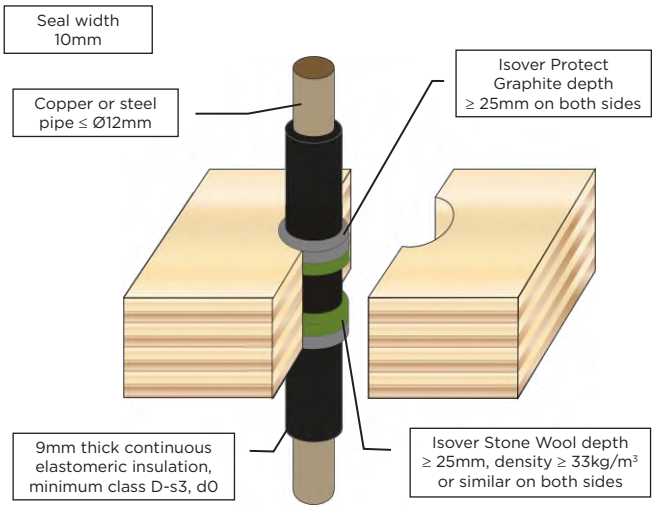
INSULATED STEEL PIPE FIRE RESISTANCE EI 60 C/C (E 120)

TIMBER FLOORS



INSULATED COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)

TIMBER FLOORS



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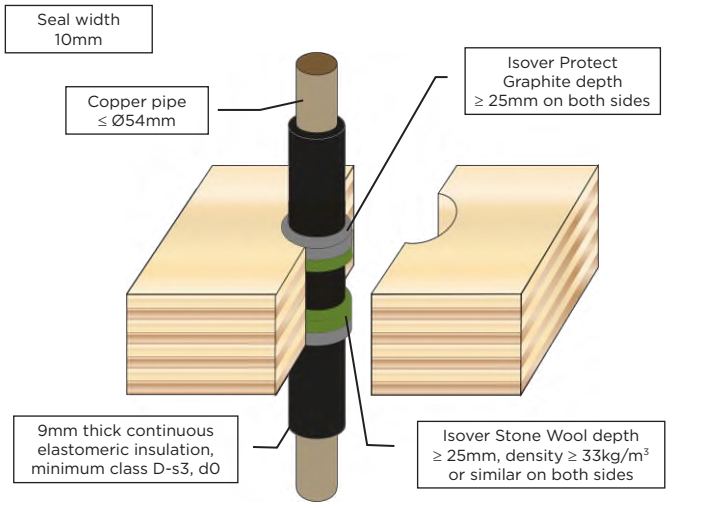
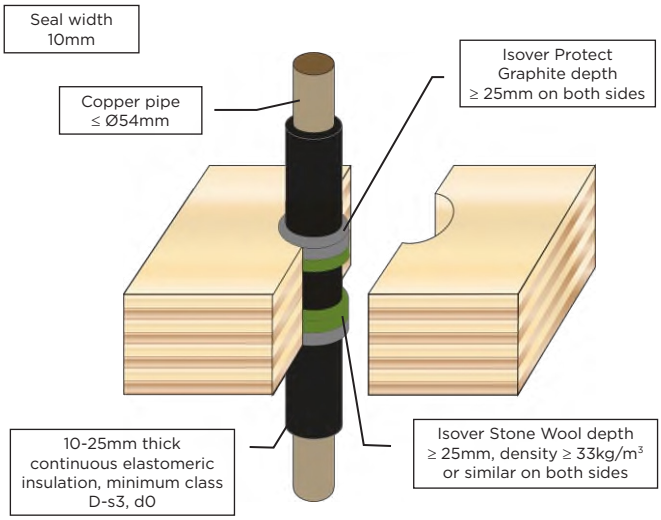
TIMBER FLOORS



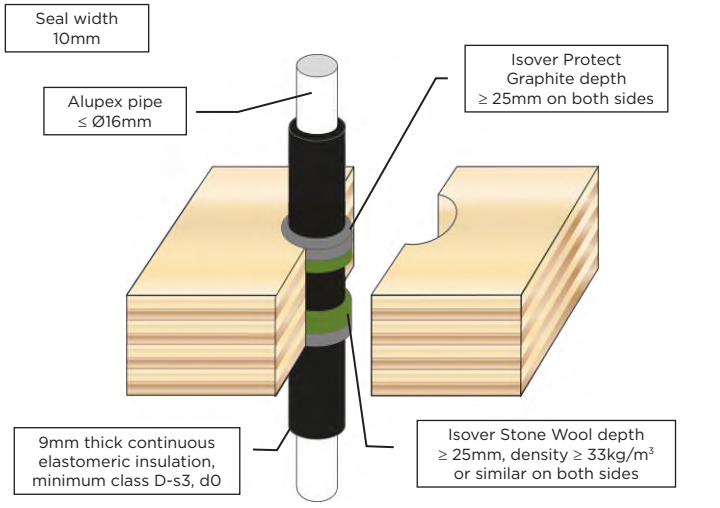
INSULATED COPPER PIPE FIRE RESISTANCE EI 30 C/C (E 120)

TIMBER FLOORS



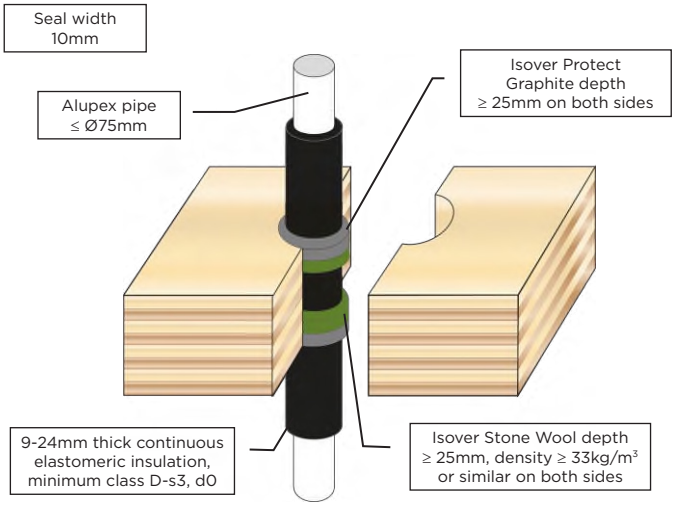
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 120 C/C (E 120)

TIMBER FLOORS



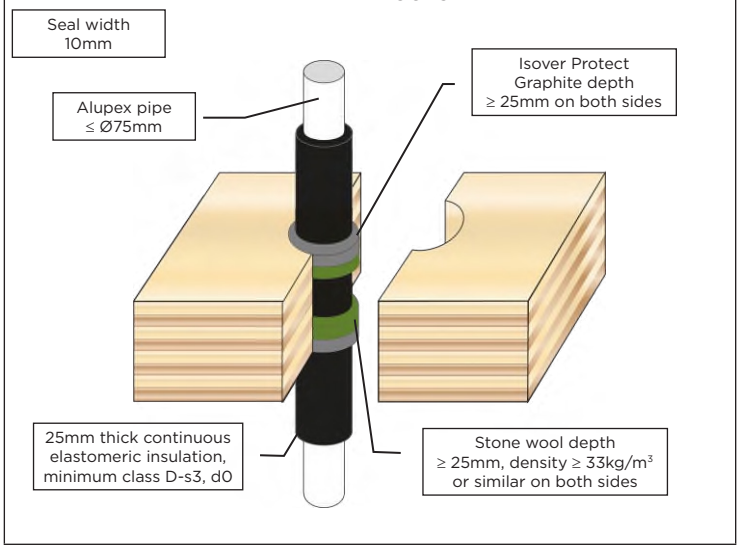
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 60 C/C (E 120)

TIMBER FLOORS



INSULATED ALUPEX PIPE FIRE RESISTANCE EI 90 C/C (E 120)

TIMBER FLOORS



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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