ASTROFLAME
PASSIVE FIRE STOP SYSTEMS

Technical Data Sheet

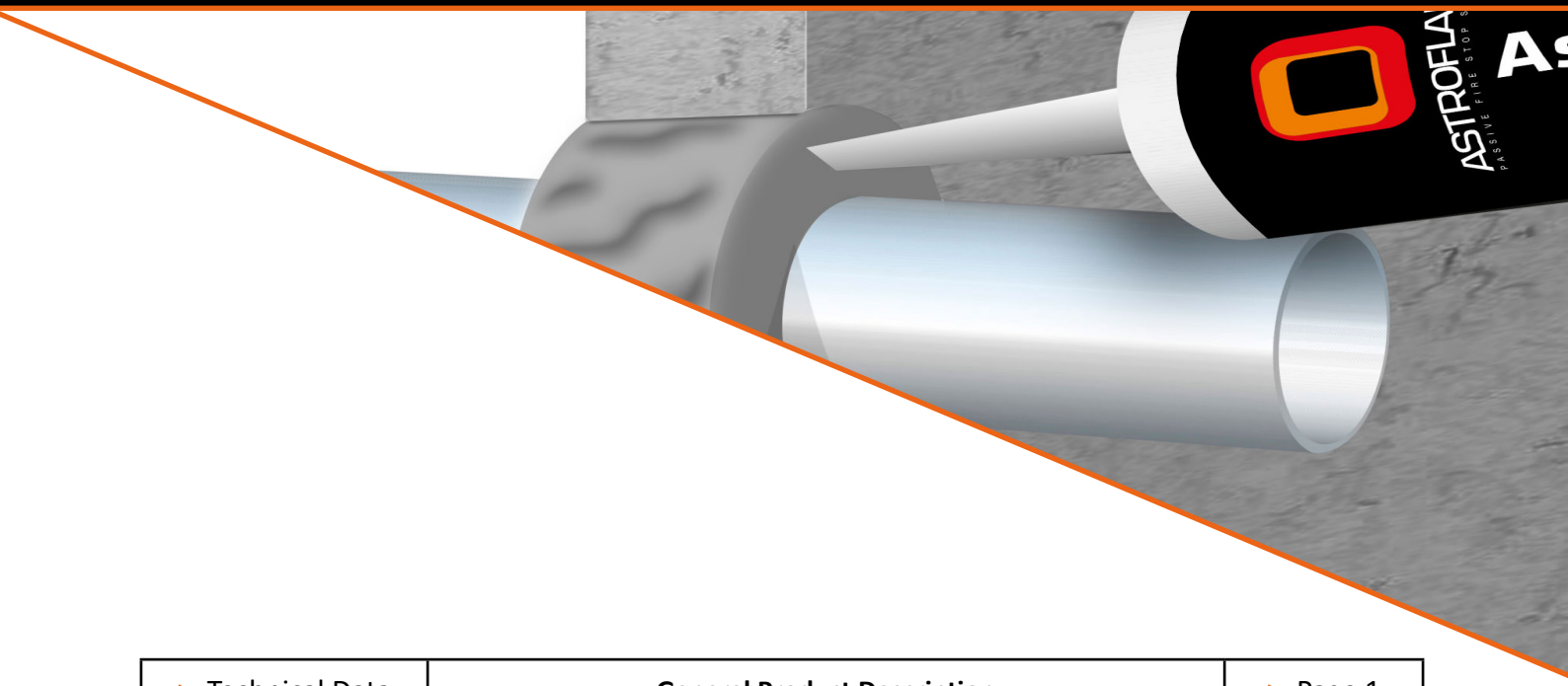
Astro PFP FR Graphite

Revision 2 - 9th February 2024

0843-UKTA-23/0029
0843-CPR-1320

ETA - 22/0638
CE-2531-CPR-CXO10380

Astroflame (Fireseals) LTD : Unit 8 , I.O Centre : Stephenson Road : Segensworth : Fareham : PO15 5RU
T - **01329 844500** : W - **www.astroflame.com** : E - **sales@astroflame.com**



For fire sealing additional pipes and classifications, please refer to Astro PFP Pipe Closer's Technical Data Sheet and Installation Instructions.

General Product Description

Astro PFP FR Graphite is a high specification formulation designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors. Astro PFP FR Graphite expands when it is subjected to fire and closes openings around penetrations when any combustible or low temperature melting materials have burnt away.

Astro PFP FR Graphite is designed to fire seal difficult services which traditional fire rated mastics do not achieve, such as large plastic pipes.

Astro PFP FR Graphite can be used with a suitable filling material, i.e. stone wool or Astroflame Backing material in order to ensure correct width to depth ratio and to reduce the shrinking of the sealant during curing. Minimum depth and maximum width of the joints are included in the installation instructions. Thermal activation takes place at 150°C when the material will expand (intumesce) to prevent the passage of fire and smoke for periods up to 4 hours.

General Guide

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. For larger apertures other than described in the detailed drawings, Astro PFP FR Boards or Astro PFP FR EX 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 crosslaminated timber. Rigid walls must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m3. 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 Astro PFP FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.

2. As Astro PFP FR 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 Astro PFP FR Graphite to the required depth. Refer to the drawings on following pages 2 to 9 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.

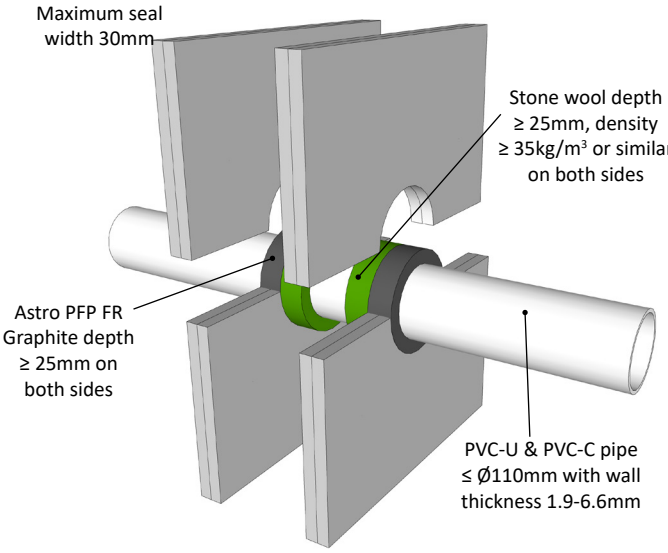
6. Astro PFP FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.

Test Standards

This Technical Data Sheet and the Installation Instructions are based on the product's European Technical Assessment issued in accordance with regulation (EU) No 305/2011 on the basis of EAD 350454-00-1104, September 2017, tested to EN 1366-3 in conjunction with EN 1363-1. The product hold the following approval marks; CE-mark for Europe and UKCA for the United Kingdom

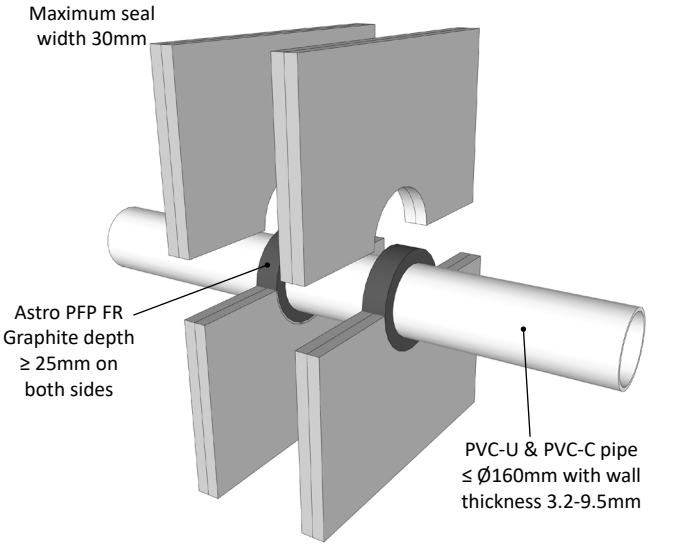
PVC PIPE FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



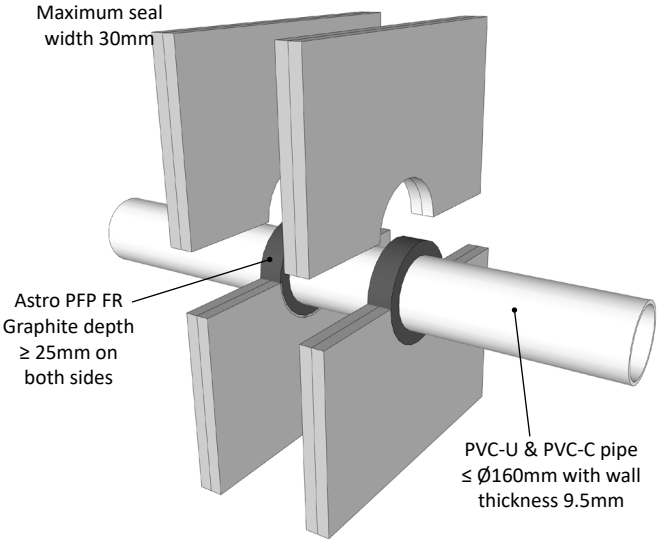
PVC PIPE FIRE RESISTANCE EI 30 U/C (E 30)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



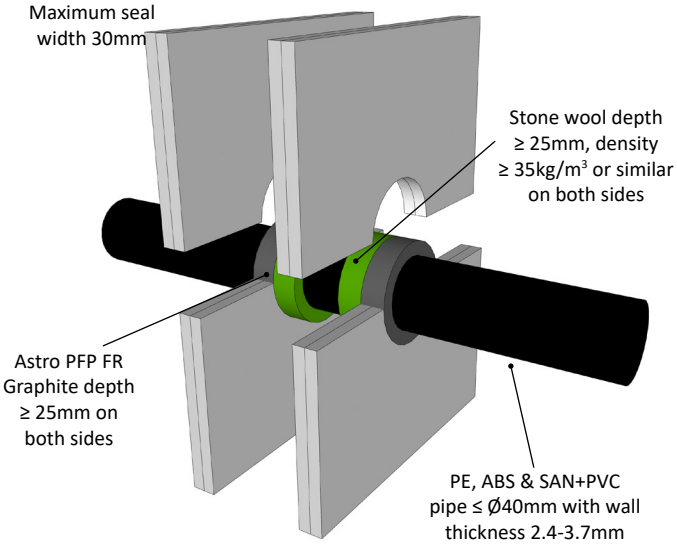
PVC PIPE FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



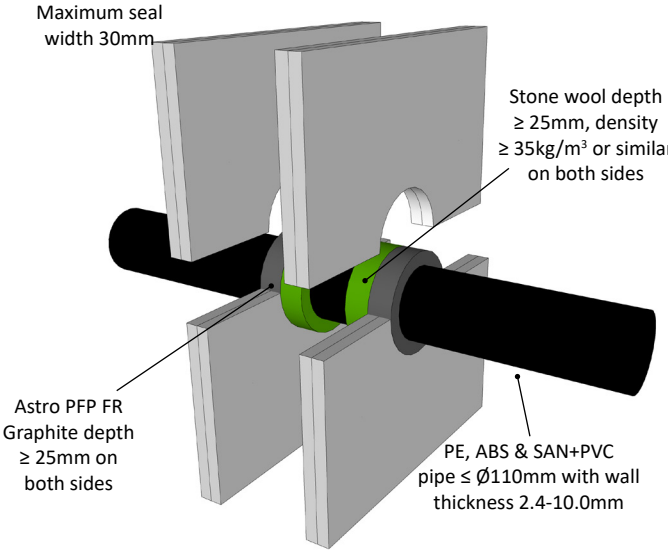
PE PIPE FIRE RESISTANCE EI 120 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



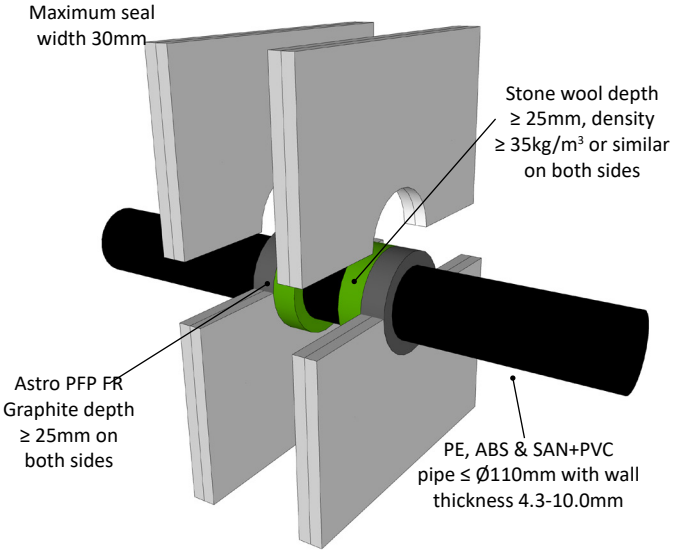
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



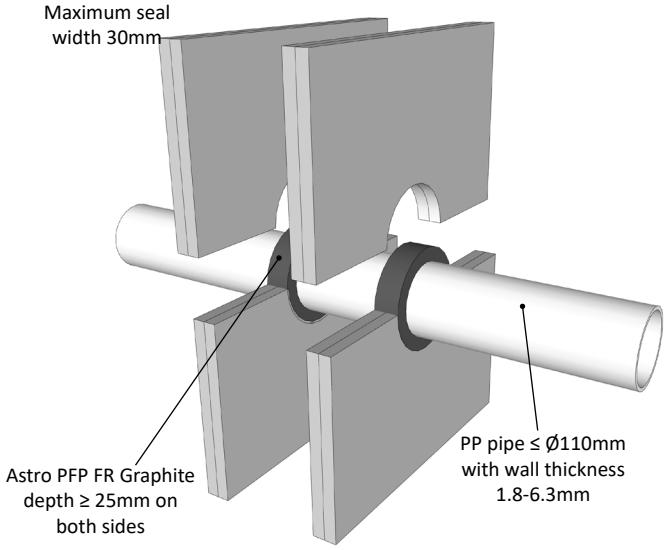
PE PIPE FIRE RESISTANCE EI 90 U/C (E 120)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



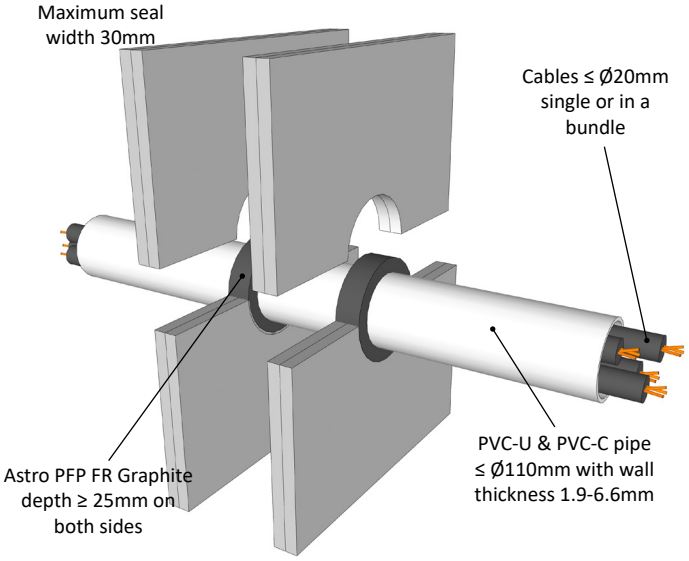
PP PIPE FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



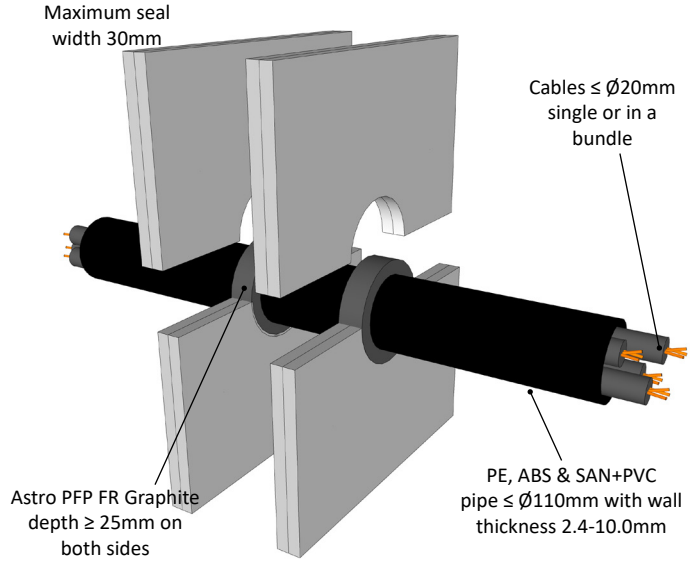
PVC CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



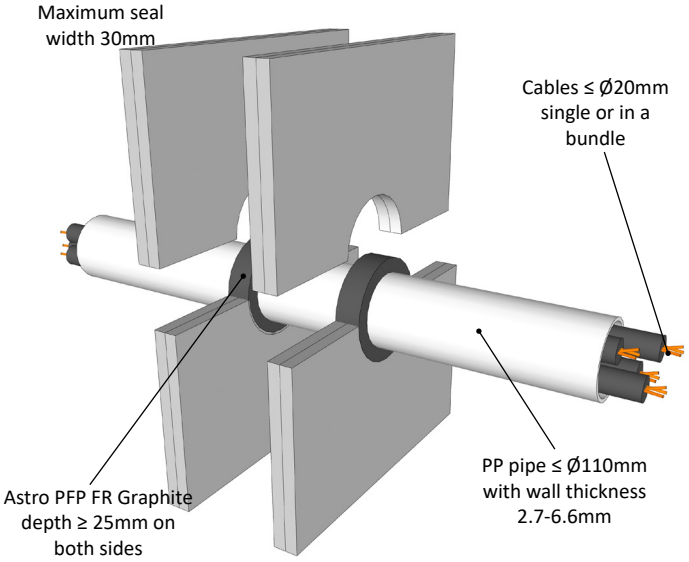
PE CONDUIT FIRE RESISTANCE EI 60 U/C (E 60)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



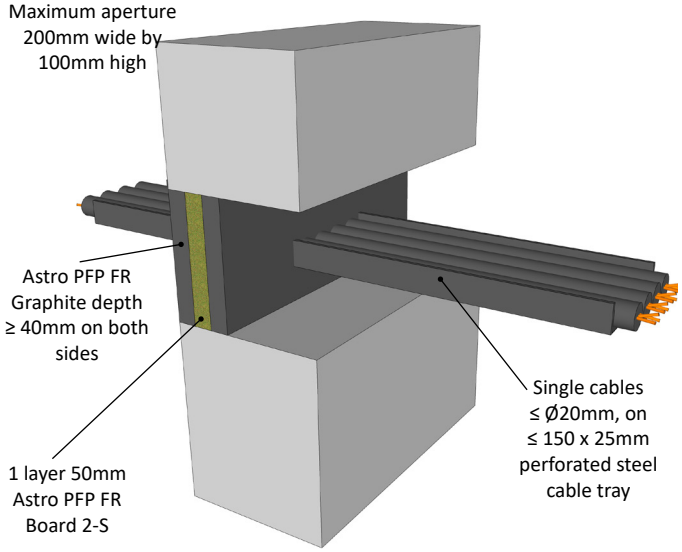
PP CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS



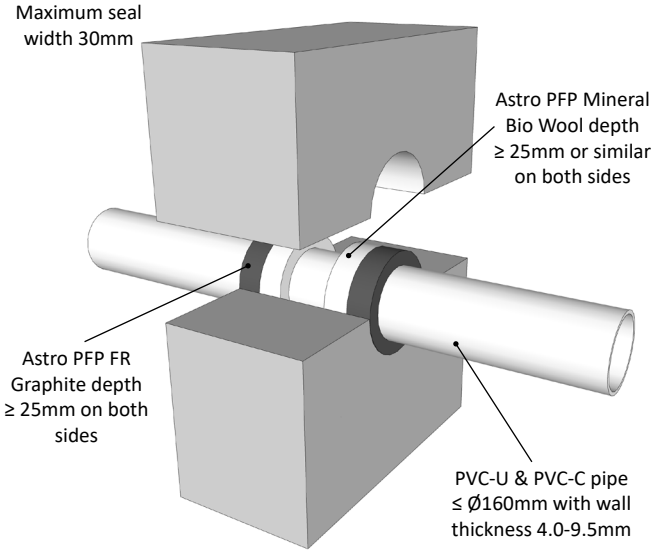
CABLES AND CABLE TRAY FIRE RESISTANCE EI 180 (E 240)

≥ 150MM MASONRY OR CONCRETE WALLS



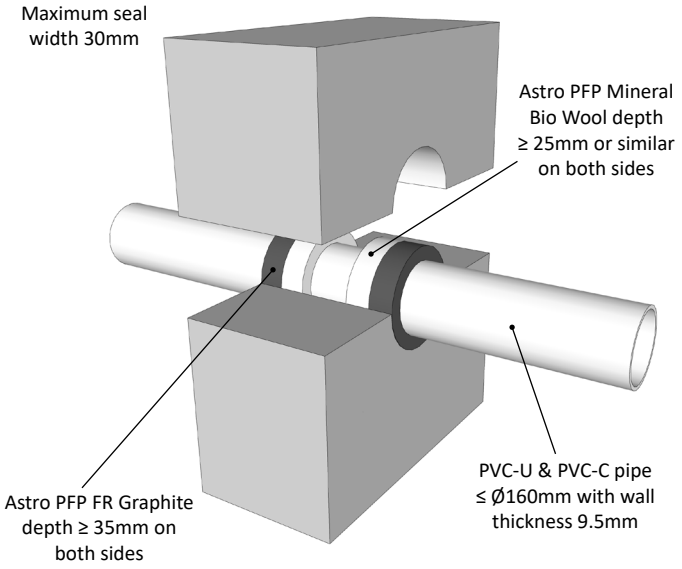
PVC PIPE FIRE RESISTANCE EI 90 U/C (E 90)

≥ 150MM MASONRY OR CONCRETE WALLS



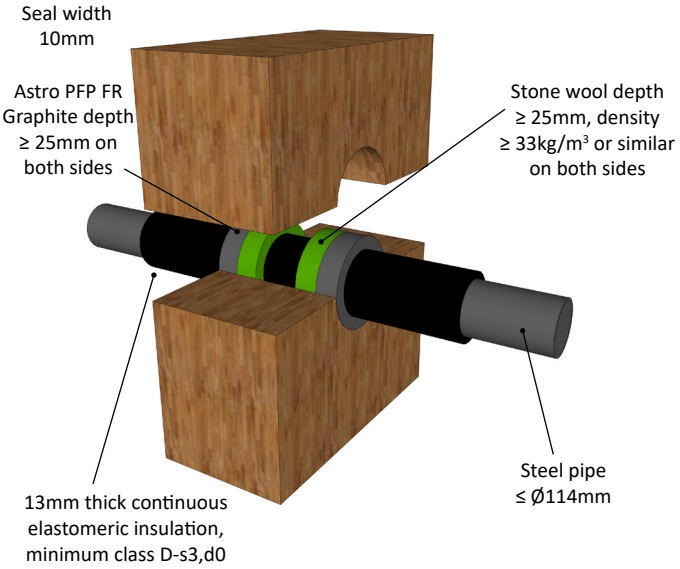
PVC PIPE FIRE RESISTANCE EI 180 U/C (E 240)

≥ 150MM MASONRY OR CONCRETE WALLS



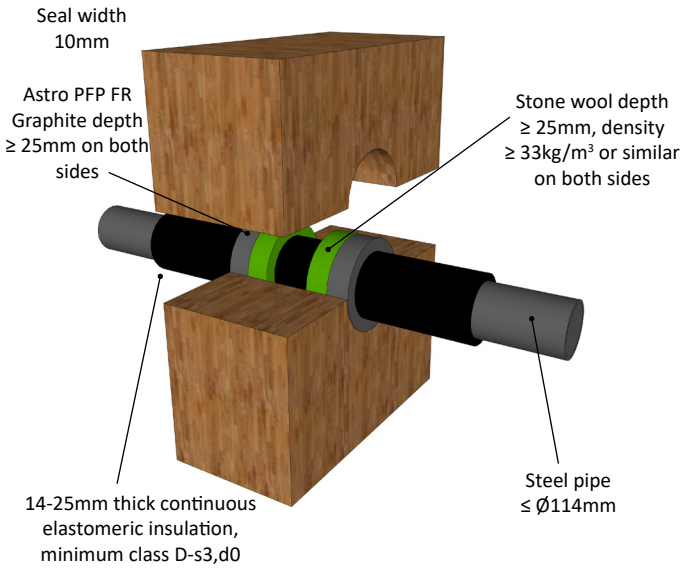
INSULATED STEEL PIPE FIRE RESISTANCE EI 90 C/C (E 90)

≥ 100MM TIMBER WALLS



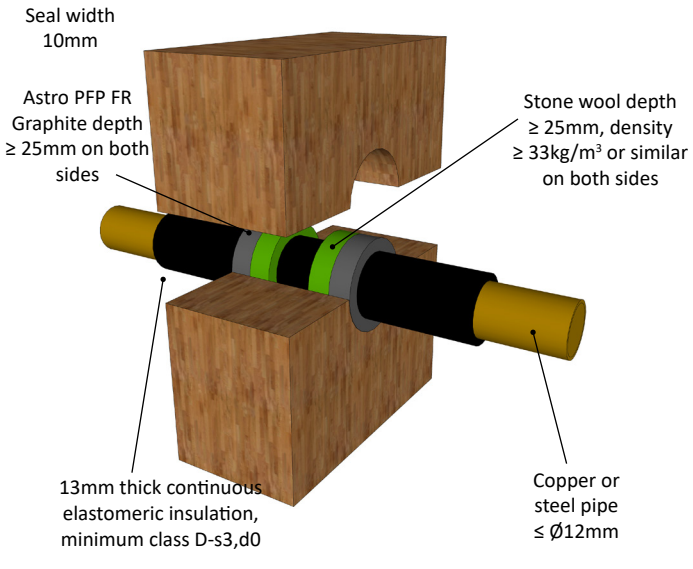
INSULATED STEEL PIPE FIRE RESISTANCE EI 45 C/C (E 90)

≥ 100MM TIMBER WALLS



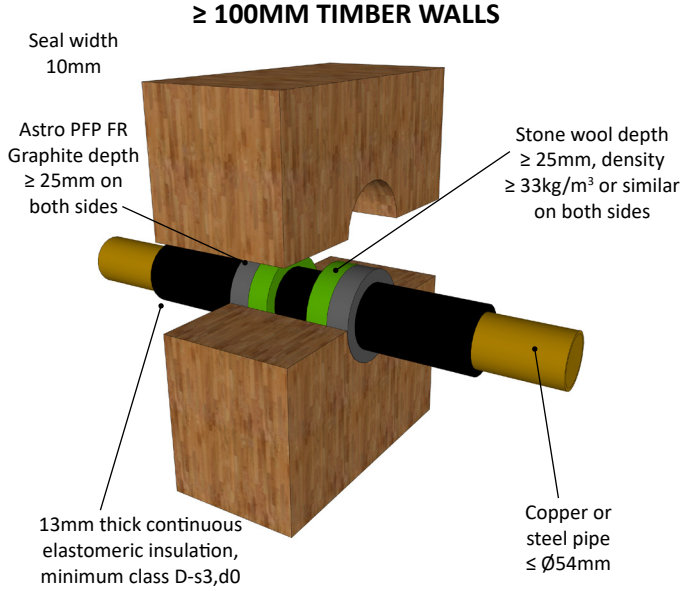
INSULATED COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM TIMBER WALLS



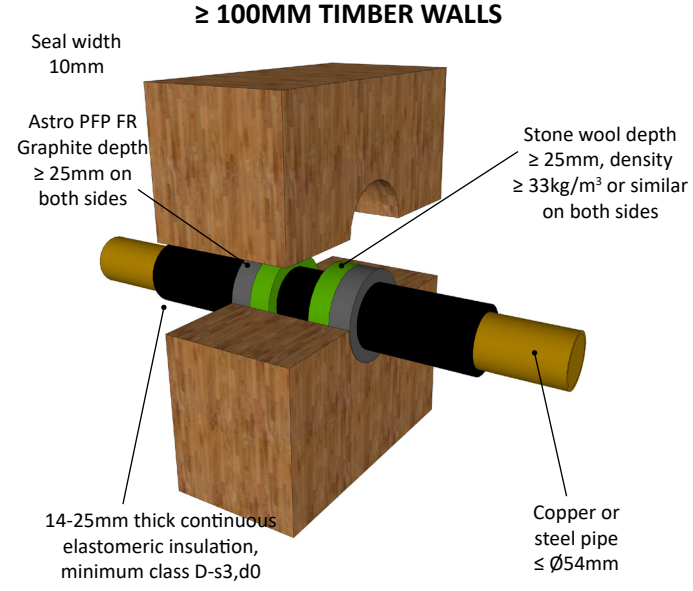
INSULATED COPPER PIPE FIRE RESISTANCE EI 90 C/C (E 120)

≥ 100MM TIMBER WALLS



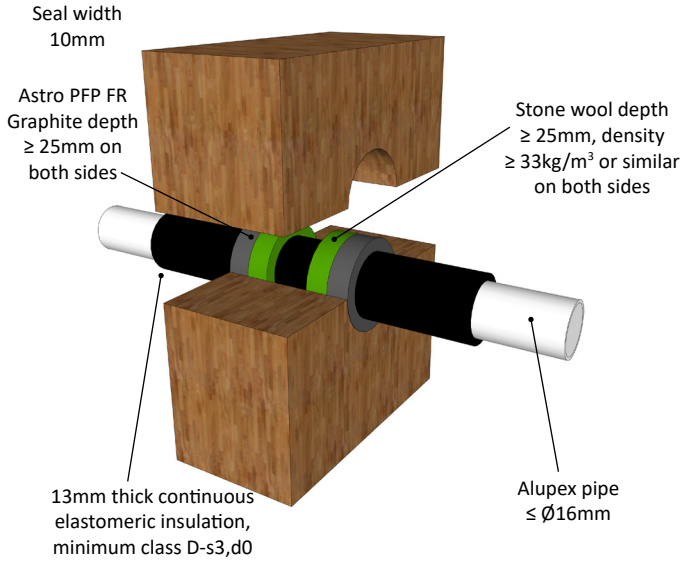
INSULATED COPPER PIPE FIRE RESISTANCE EI 30 C/C (E 120)

≥ 100MM TIMBER WALLS



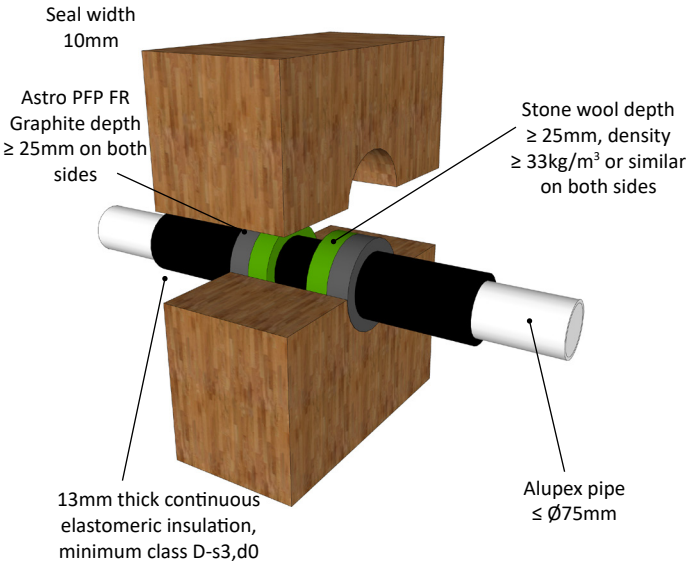
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 120 C/C (E 120)

≥ 100MM TIMBER WALLS



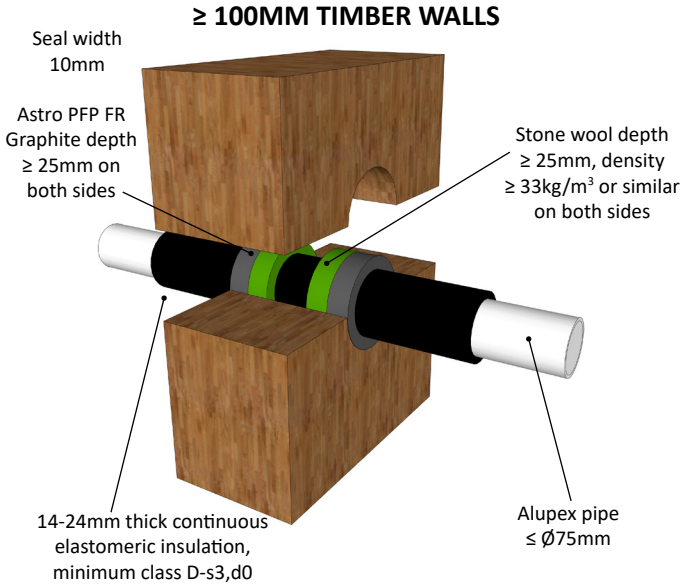
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 45 C/C (E 120)

≥ 100MM TIMBER WALLS



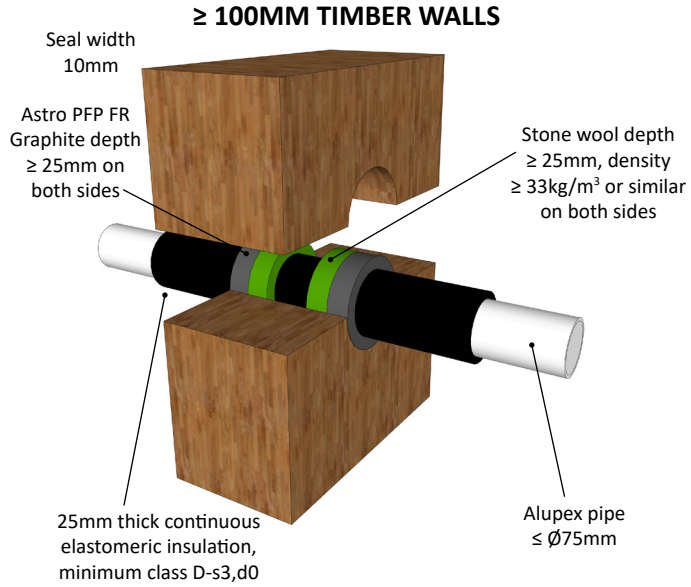
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 45 C/C (E 90)

≥ 100MM TIMBER WALLS



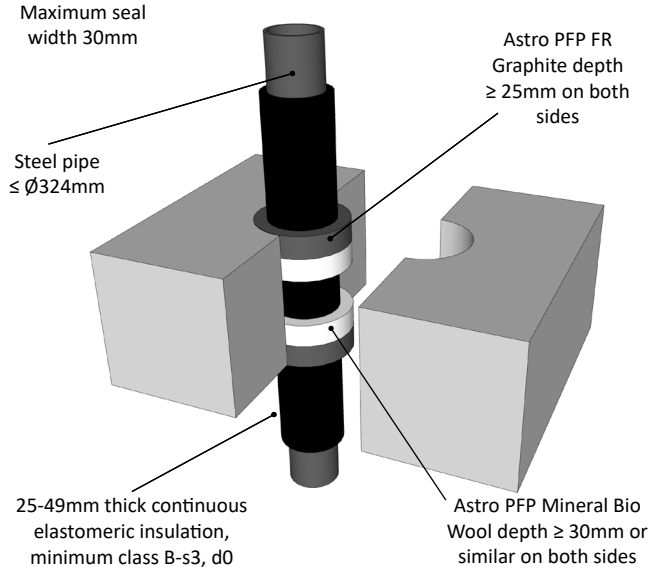
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 90 C/C (E 90)

≥ 100MM TIMBER WALLS



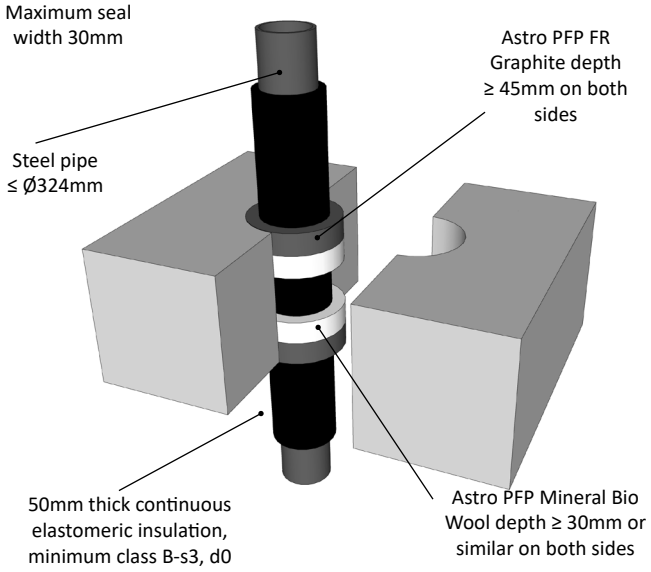
INSULATED STEEL PIPE FIRE RESISTANCE EI 60 C/U (E 60)

RIGID FLOORS



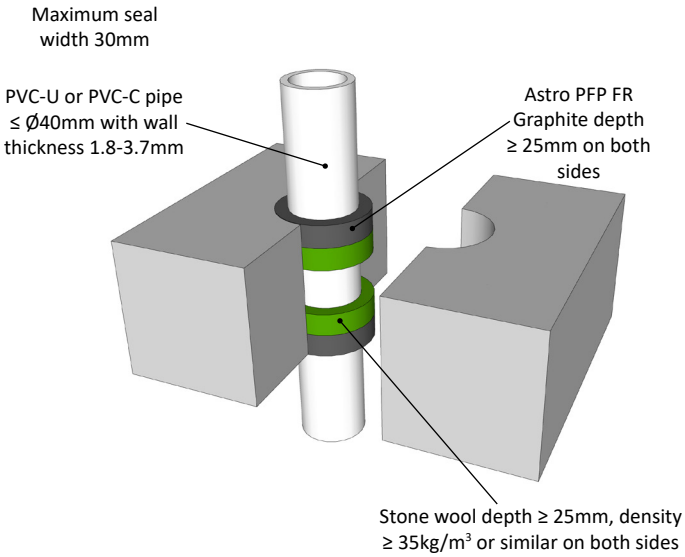
INSULATED STEEL PIPE FIRE RESISTANCE EI 120 C/U (E 120)

RIGID FLOORS



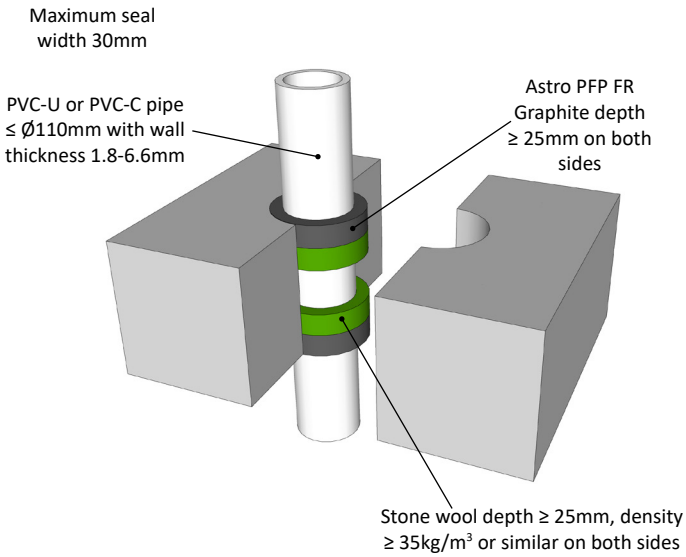
PVC PIPE FIRE RESISTANCE EI 240 U/U (E 240)

RIGID FLOORS



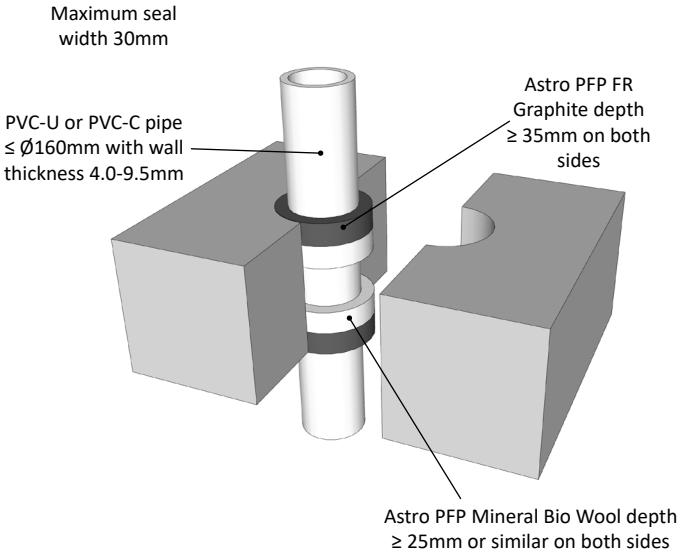
PVC PIPE FIRE RESISTANCE EI 90 C/U (E 90)

RIGID FLOORS



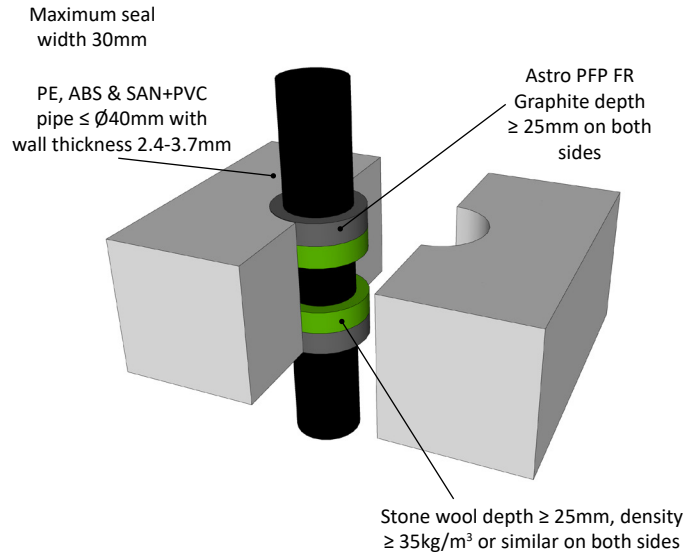
PVC PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



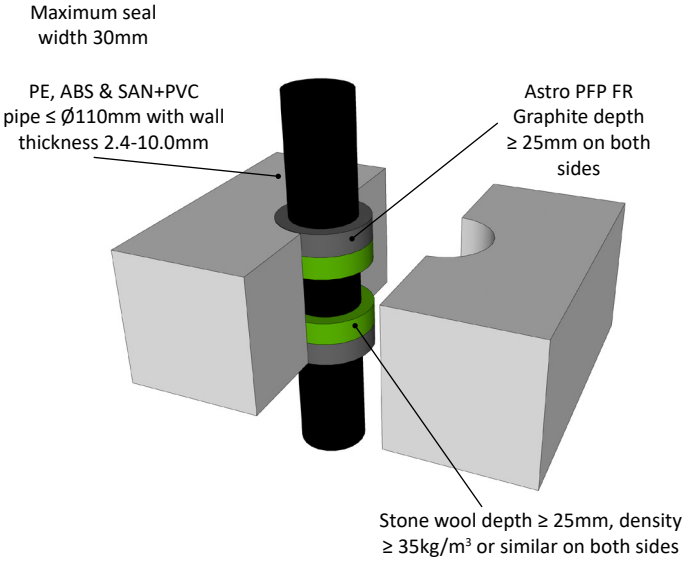
PE PIPE FIRE RESISTANCE EI 60 U/U & EI 240 U/C (E 60/240)

RIGID FLOORS



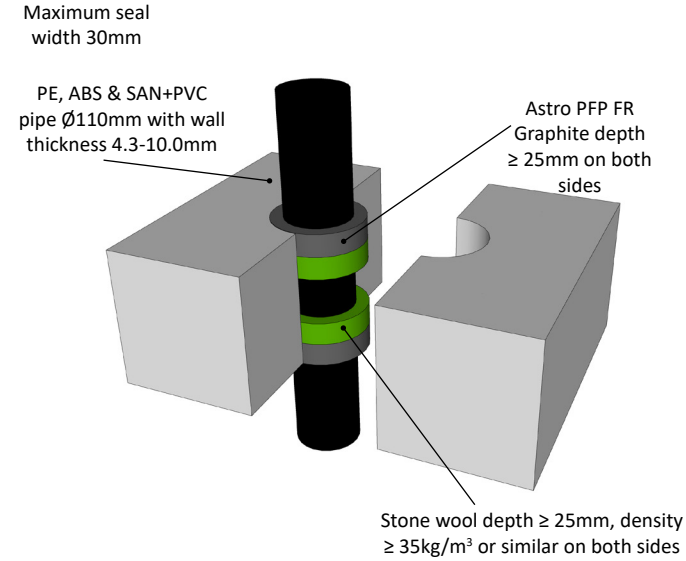
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



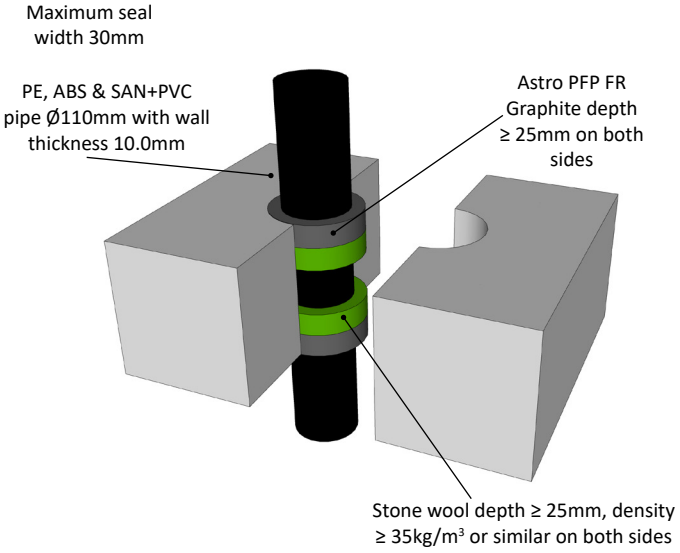
PE PIPE FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS



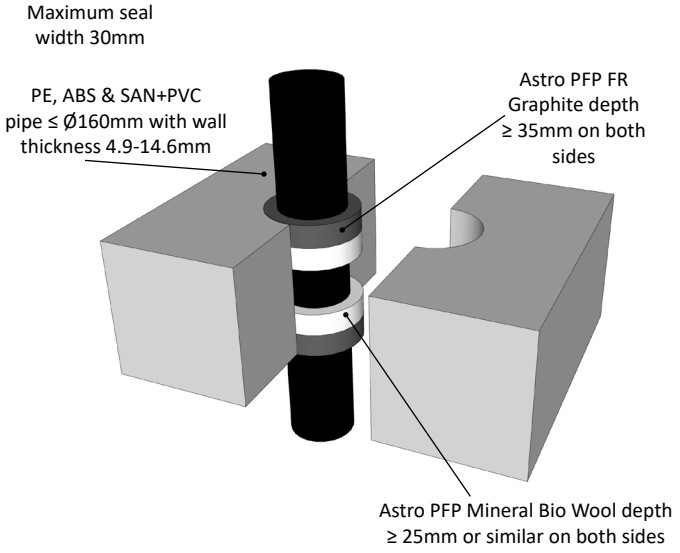
PE PIPE FIRE RESISTANCE EI 60 U/U (E 60)

RIGID FLOORS



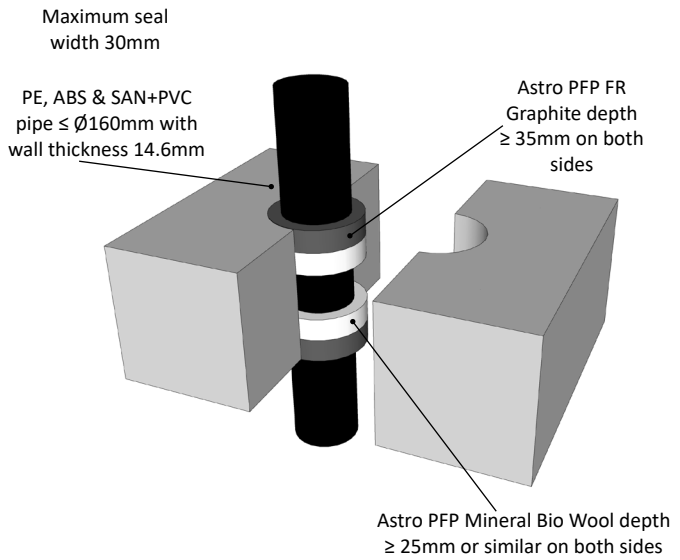
PE PIPE FIRE RESISTANCE EI 30 U/C (E 30)

RIGID FLOORS



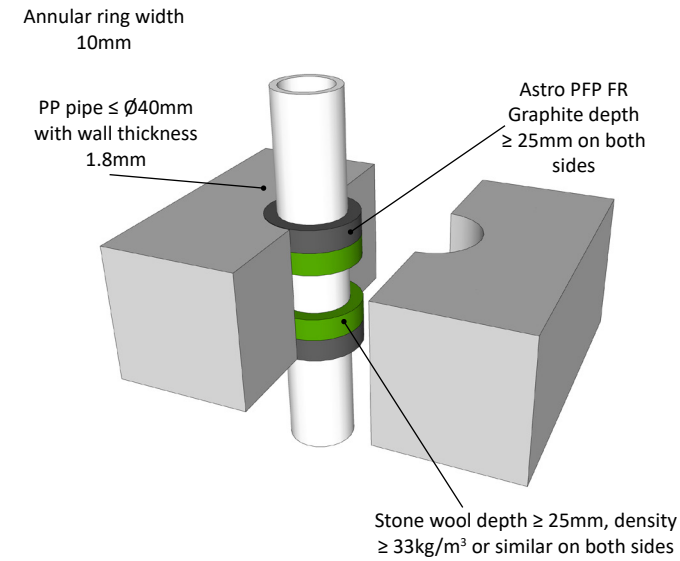
PE PIPE FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



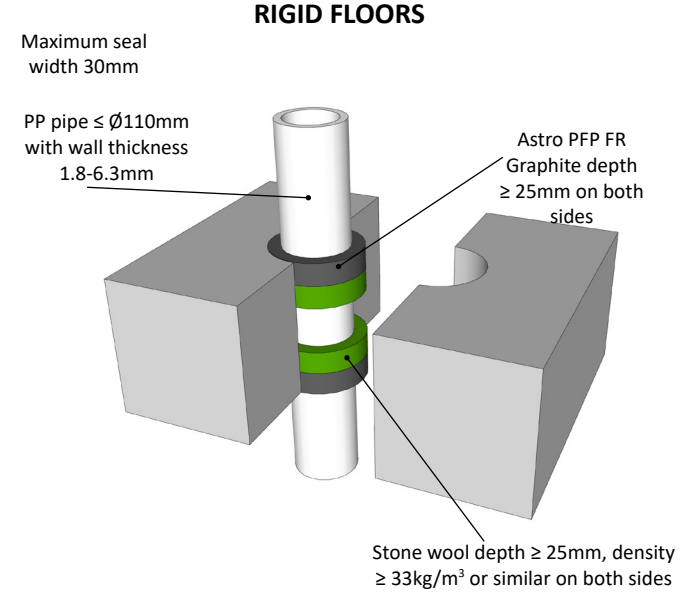
PP PIPE FIRE RESISTANCE EI 120 C/C (E 120)

RIGID FLOORS



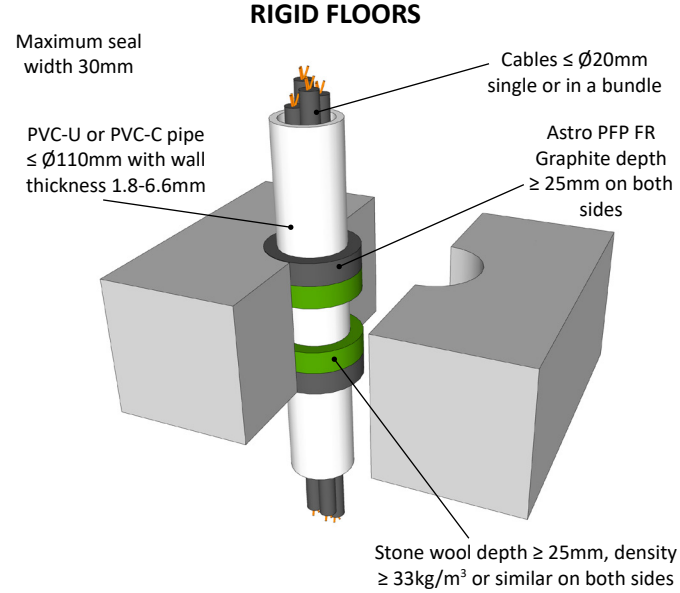
PP PIPE FIRE RESISTANCE EI 30 U/C (E 30)

RIGID FLOORS



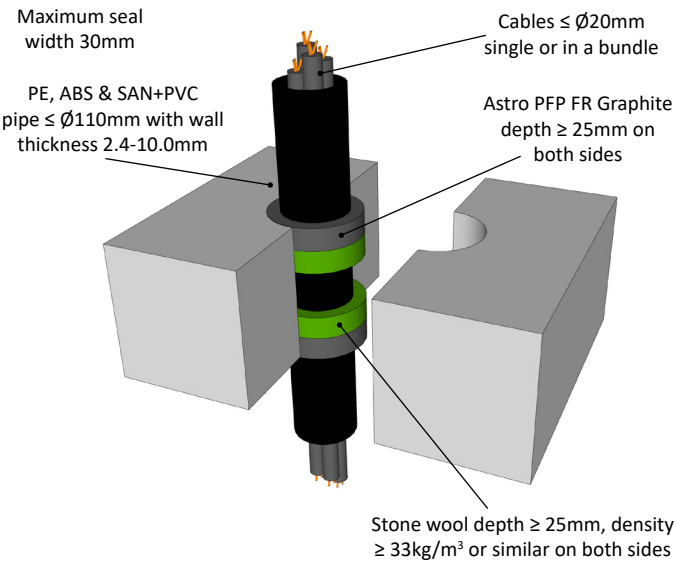
PVC CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS



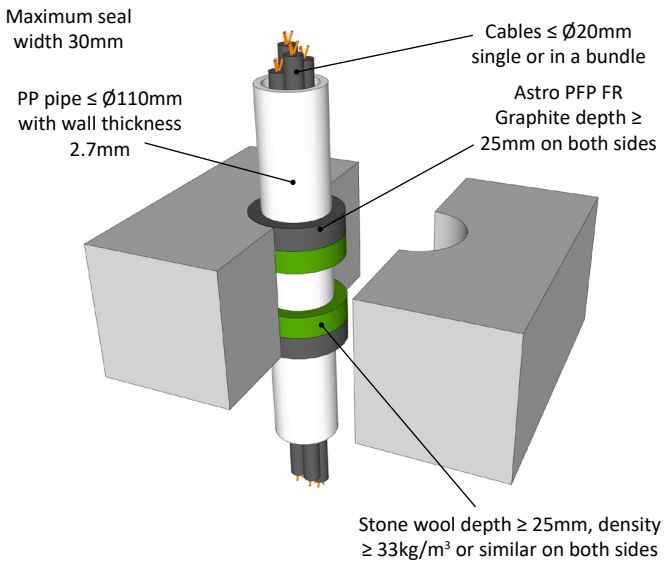
PE CONDUIT FIRE RESISTANCE EI 60 U/C (E 60)

RIGID FLOORS



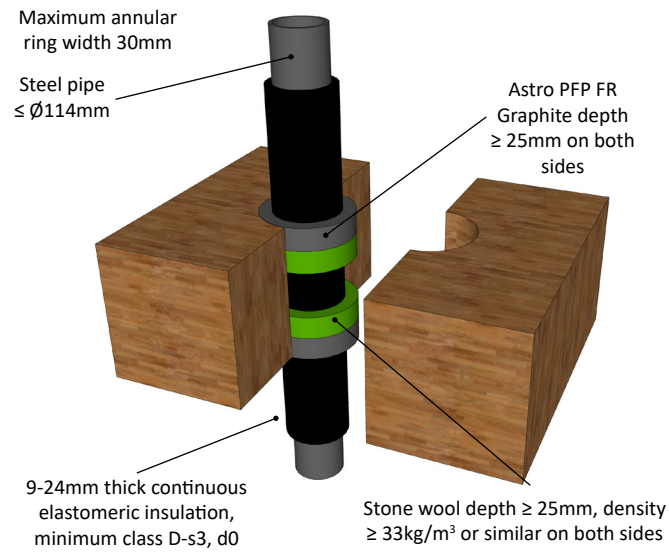
PP CONDUIT FIRE RESISTANCE EI 90 U/C (E 90)

RIGID FLOORS



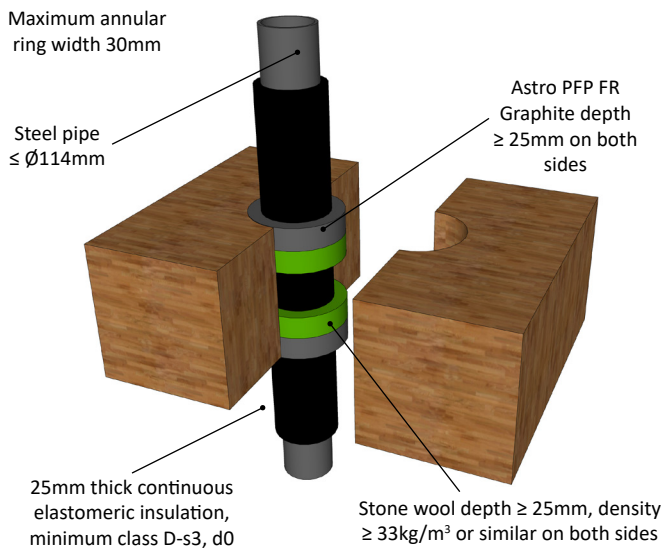
INSULATED STEEL PIPE FIRE RESISTANCE EI 45 C/C (E 120)

TIMBER FLOORS



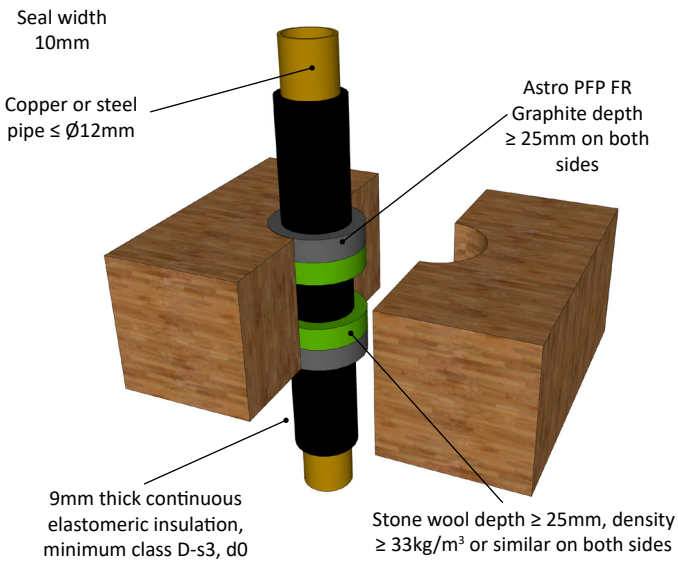
INSULATED STEEL PIPE FIRE RESISTANCE EI 60 C/C (E 120)

TIMBER FLOORS



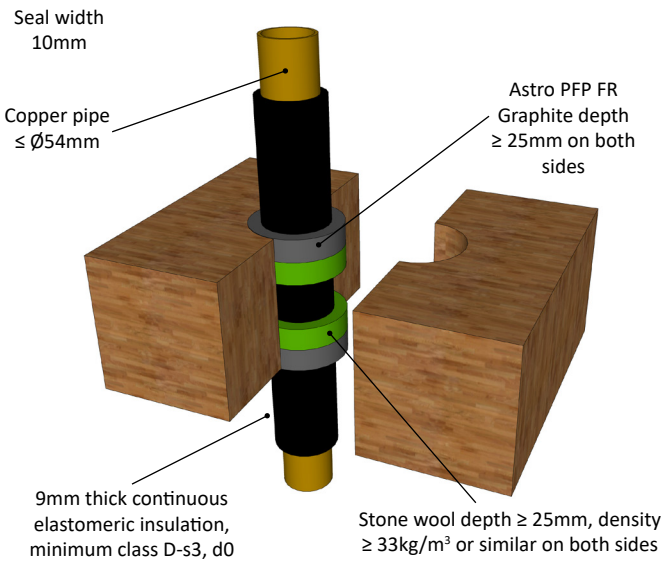
INSULATED COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)

TIMBER FLOORS



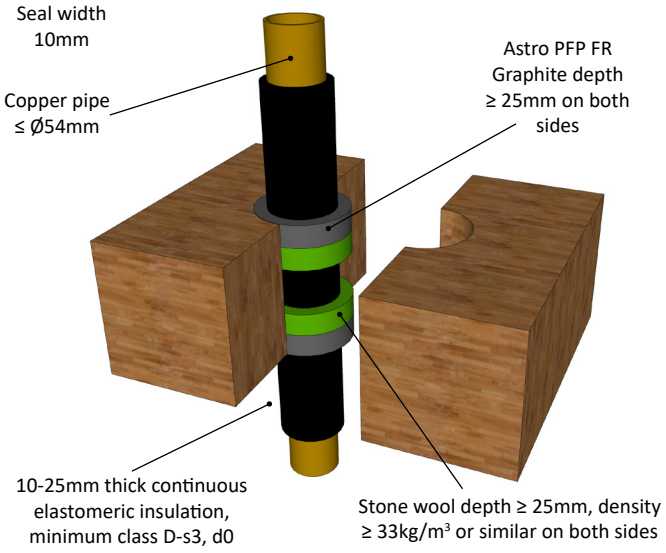
INSULATED COPPER PIPE FIRE RESISTANCE EI 45 C/C (E 120)

TIMBER FLOORS



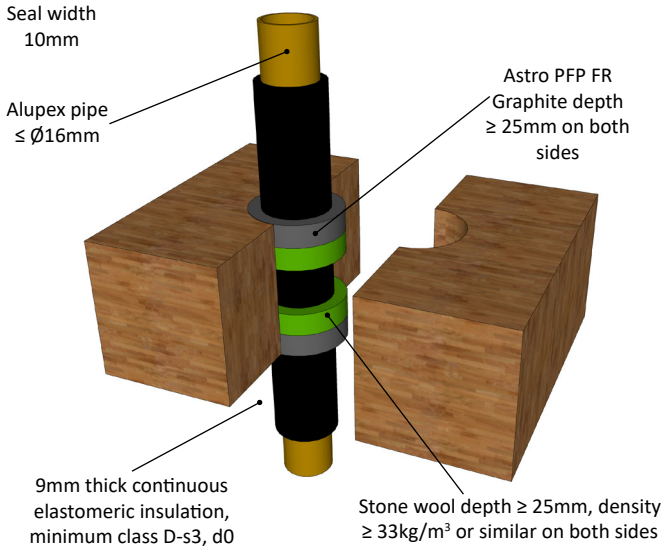
INSULATED COPPER PIPE FIRE RESISTANCE EI 30 C/C (E 120)

TIMBER FLOORS



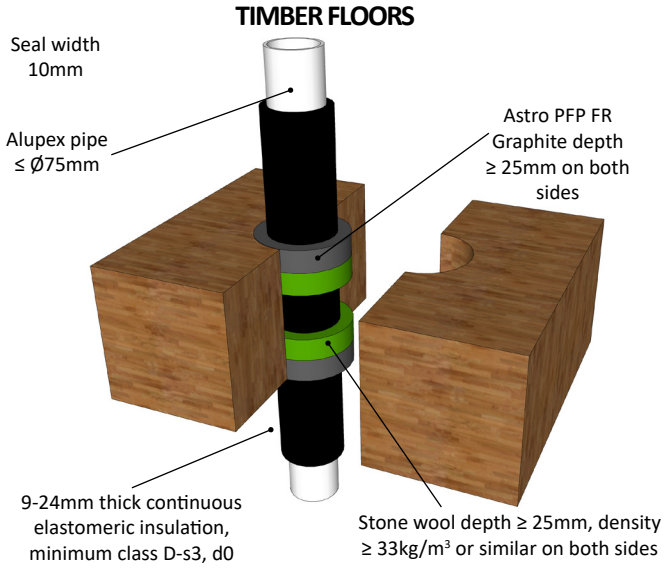
INSULATED ALUPEX PIPE FIRE RESISTANCE EI 120 C/C (E 120)

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