



# **Isover Protect Acrylic**

Fire stopping & sealing

Installation Instructions

**INDEX**

General Guide .....	3
Installation .....	4

**INDEX - TECHNICAL DRAWINGS**

Linear seals in floors.....	5-6
Cables in floors .....	7
Metal pipes in floors.....	8-13
Plastic pipes in floors.....	13-16
Plastic conduits in floors.....	16
Cables in timber floors.....	16-17
Metal pipes in timber floors .....	17
Plastic pipes in timber floors .....	17-18
Linear seals in masonry or concrete walls.....	18-19
Cables in masonry or concrete walls .....	19-20
Metal pipes in masonry or concrete walls.....	20-23
Plastic pipes in masonry or concrete walls.....	23-24
Plastic conduits masonry or concrete walls .....	24-25
Linear seals in drywalls, masonry or concrete walls .....	25-27
Cables in drywalls, masonry or concrete walls.....	27-28
Metal pipes in drywalls, masonry or concrete walls .....	28-34
Plastic pipes in drywalls, masonry or concrete walls .....	34-38
Plastic conduits in drywalls, masonry or concrete walls .....	38-39
Cables in timber walls .....	39
Metal pipes in timber walls.....	39-40
Plastic pipes in timber walls.....	40-42

# General Guide

Isover Protect Acrylic is designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors. Isover Protect Acrylic 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 should be 10mm to allow for correct fitting of backing and seal depth. Minimum separation between apertures should be at least 30mm, except in timber constructions where apertures can be placed linear (horizontally in walls) with no required separation. For larger joint dimensions or apertures other than described in the detailed drawings, Isover Protect Coated Board or Isover Protect Mortar should be used. In areas with a high degree of humidity and/or in joints with excessive movement, Isover Protect IPT should be used.

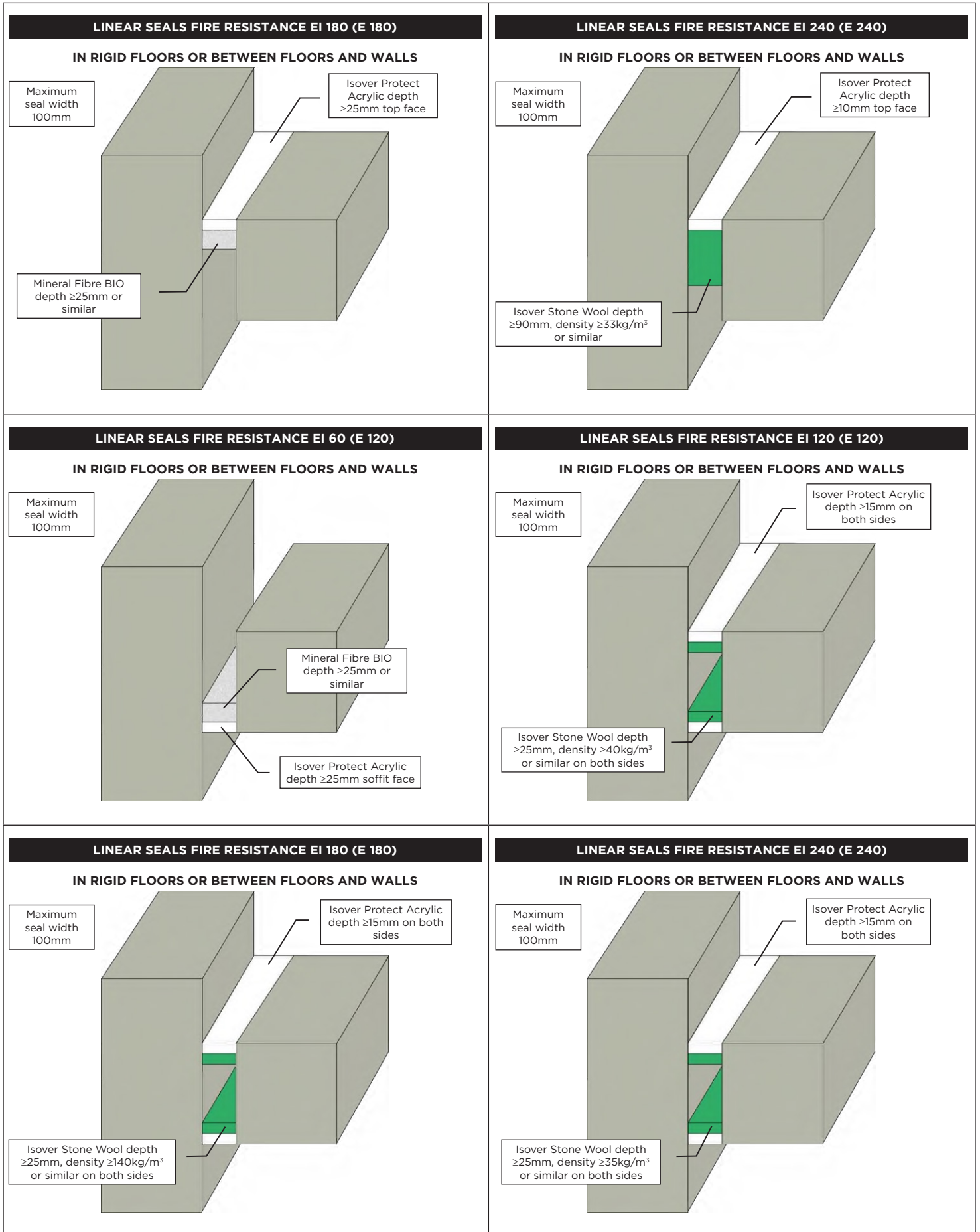
**Supporting constructions:** Flexible walls must have a minimum thickness of 75mm and comprise steel studs or timber studs\*) lined on both faces with minimum 1 layer of 12.5mm thick boards. Timber walls must have a minimum thickness of 100mm and comprise solid wood or cross-laminated timber. Rigid walls must have a minimum thickness of 75mm and comprise concrete, aerated concrete or masonry, with a minimum density of 350 kg/m<sup>3</sup> (650 kg/m<sup>3</sup> in rigid wall details). Rigid floors must have a minimum thickness of 150mm (except composite floors) and comprise aerated concrete or concrete with a minimum density of 650 kg/m<sup>3</sup>. Timber floors must have a minimum thickness of 150mm 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.

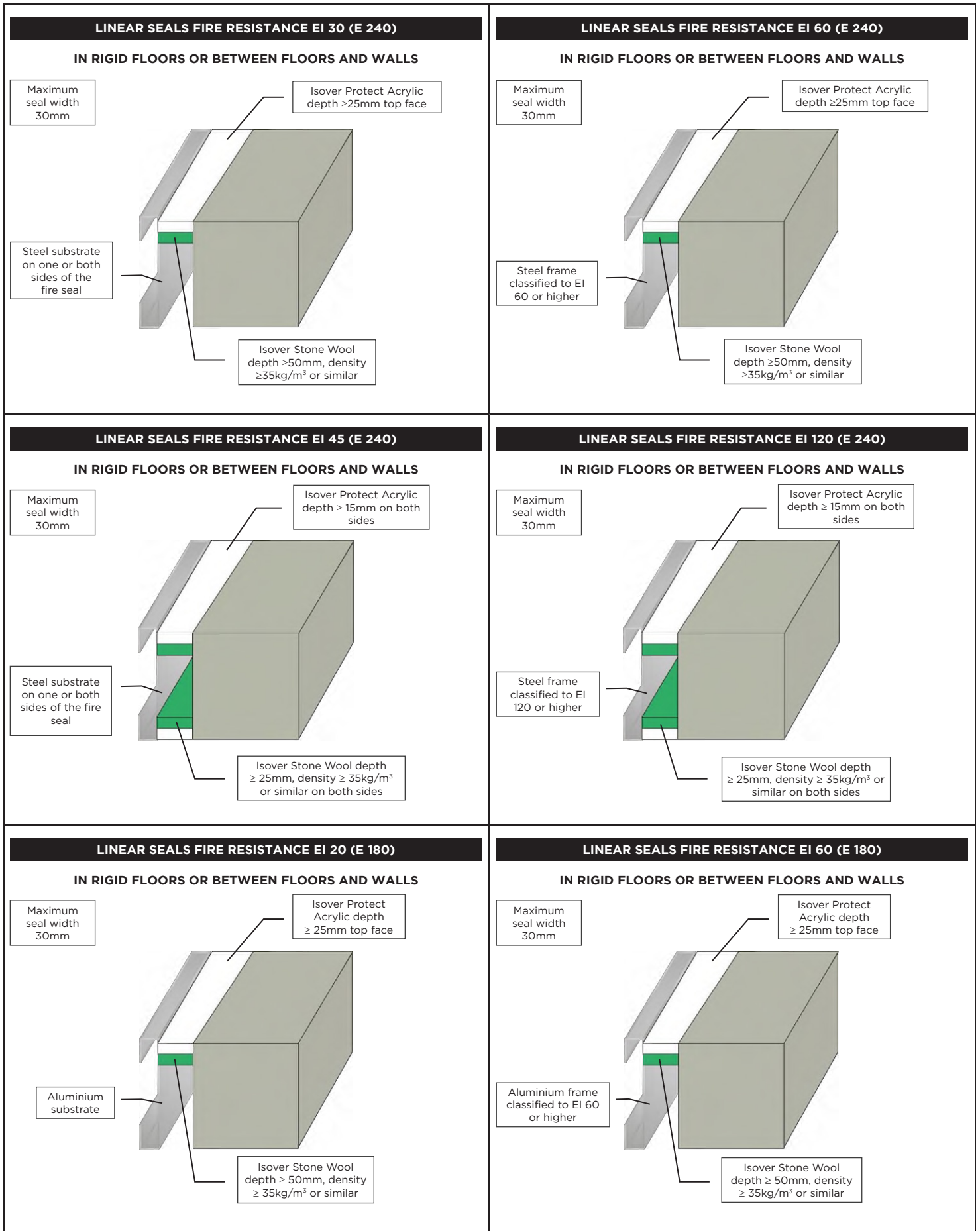
Services shall be supported at maximum 350mm away from both faces of the wall constructions and 550mm from the upper face of floor constructions.

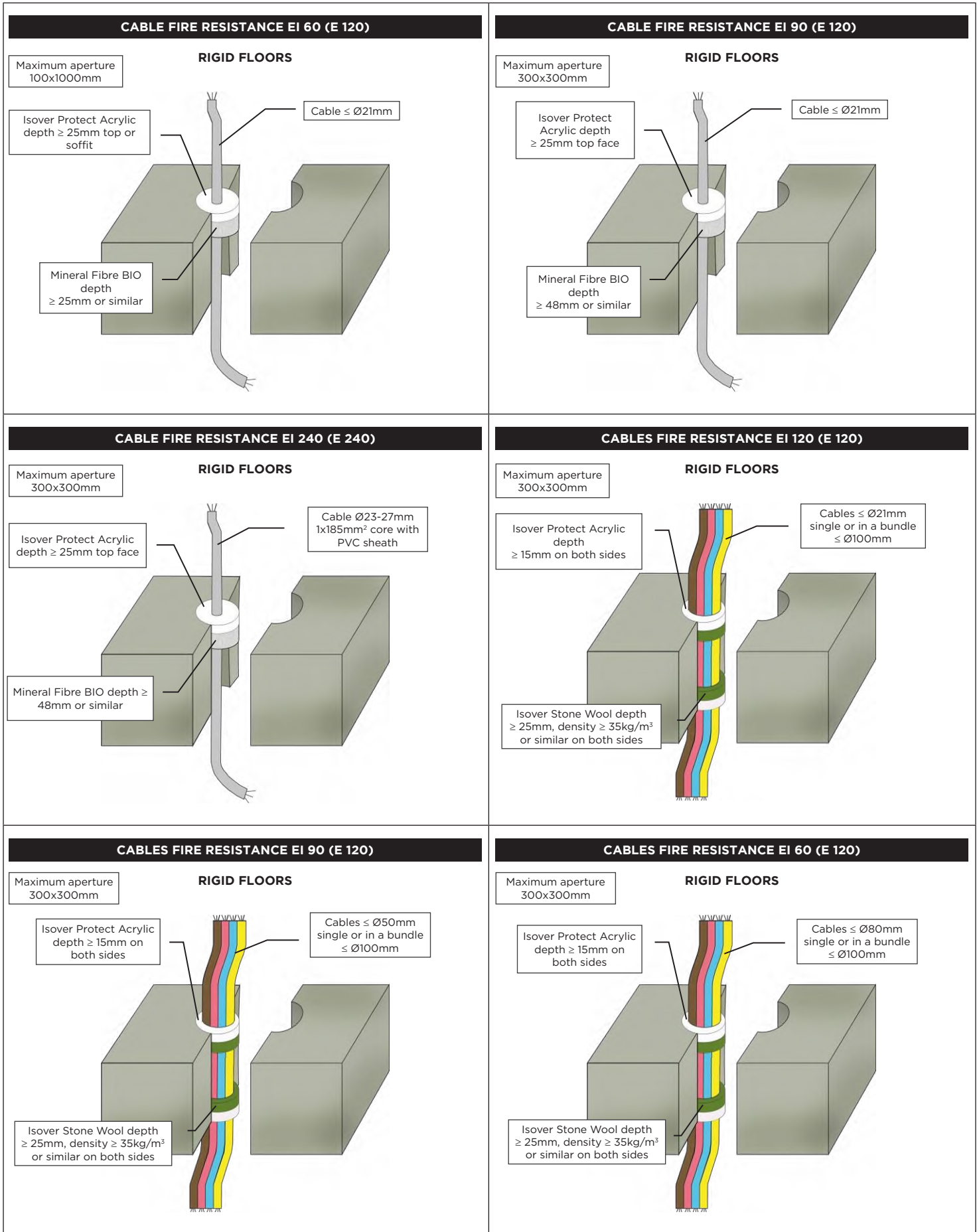
\*) Timber studs: no part of the penetration seal may be closer than 100mm to a stud, and minimum 100mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud. In linear seals, there is no minimum distance and insulation required.

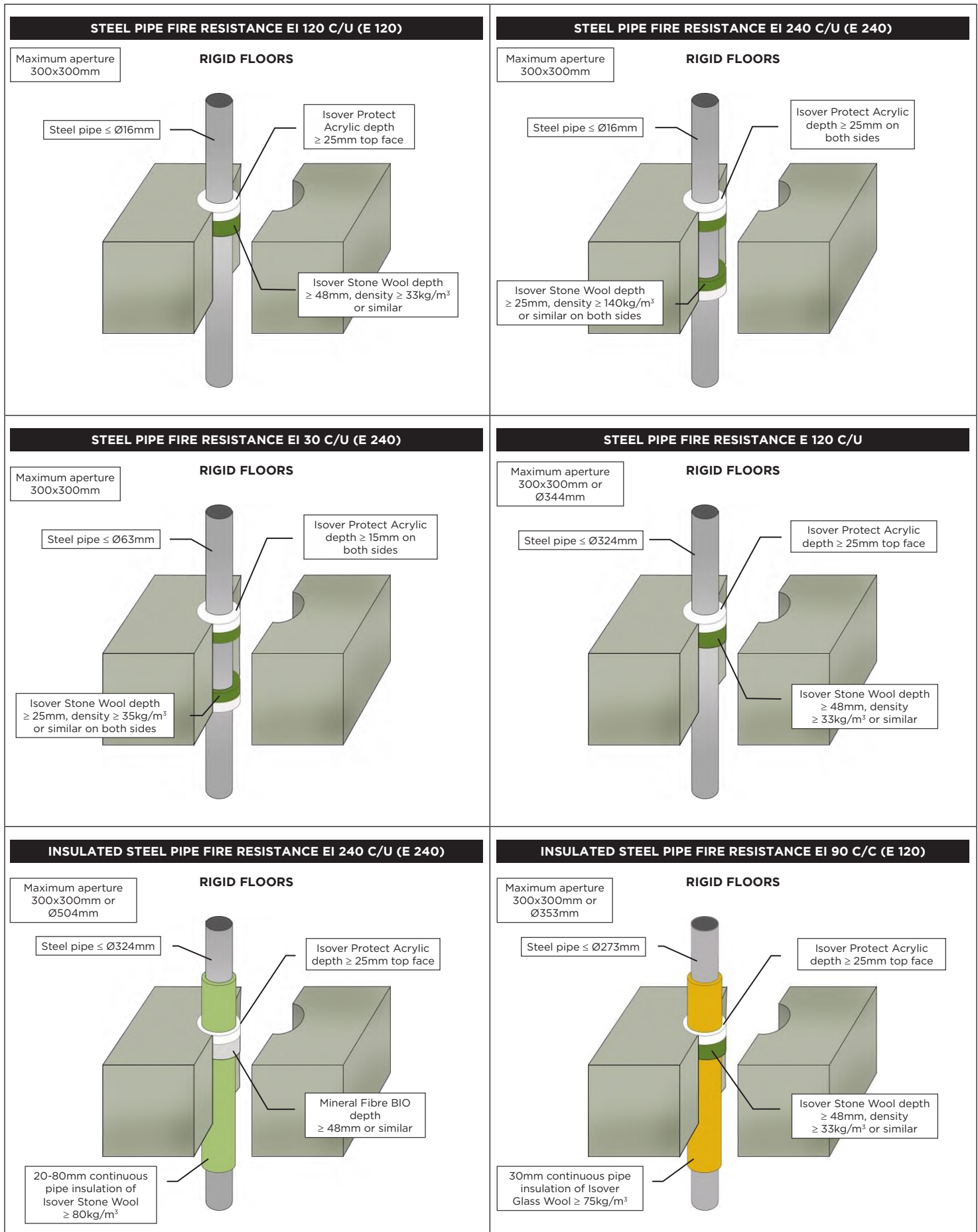
# Installation

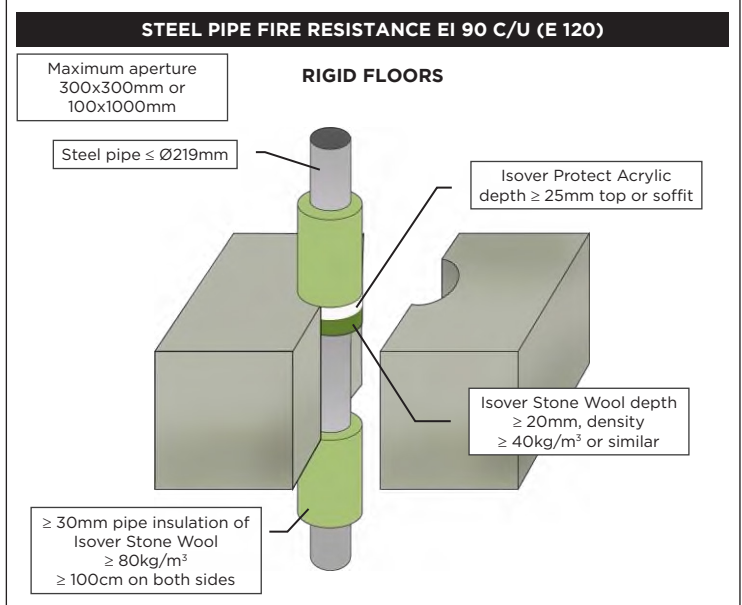
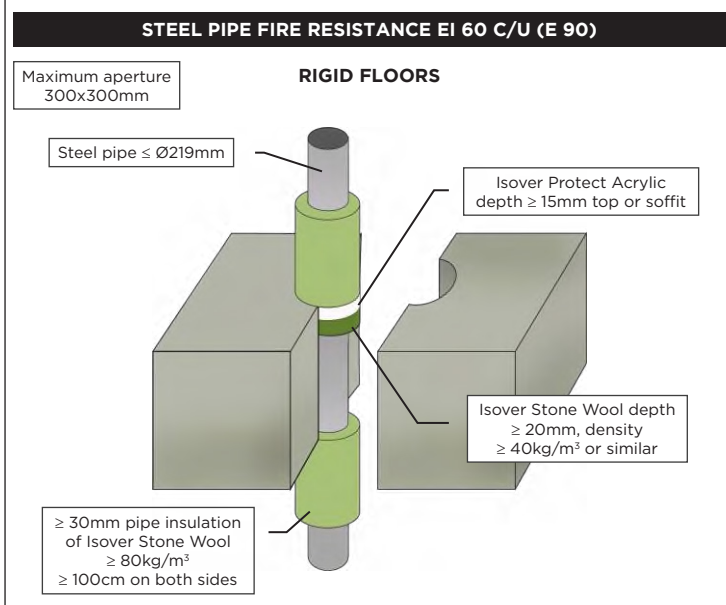
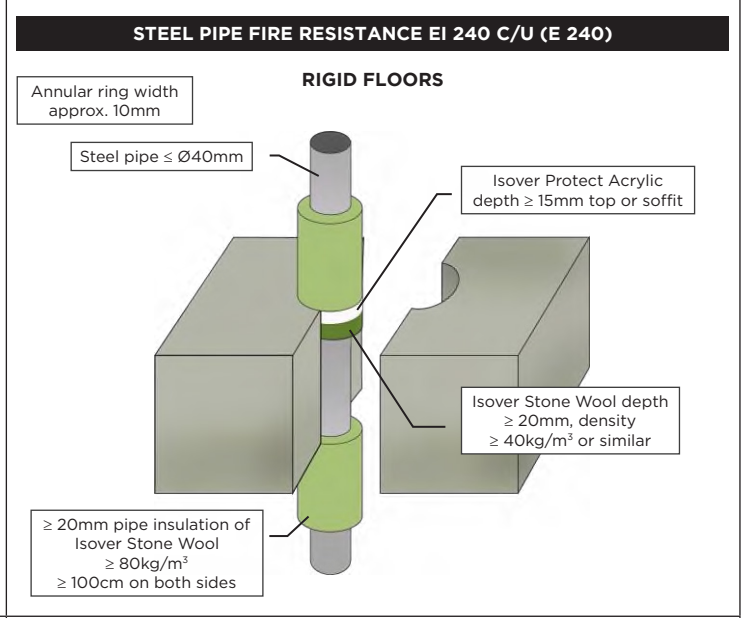
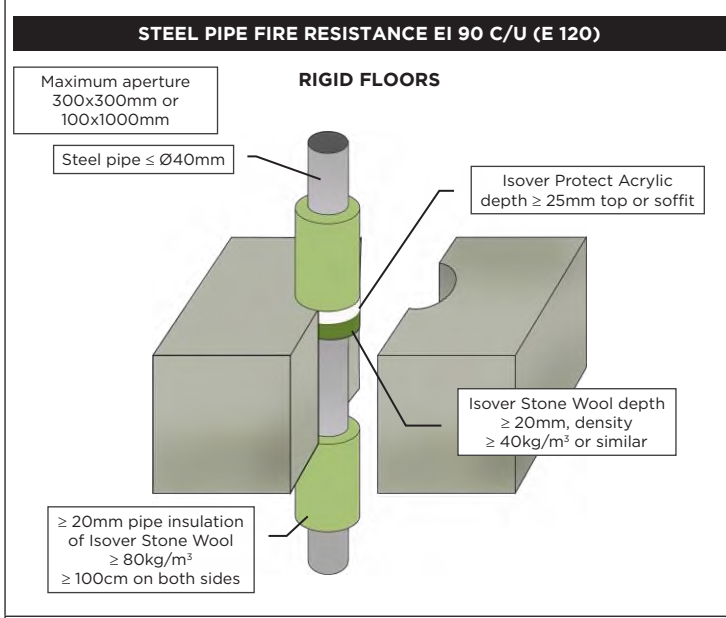
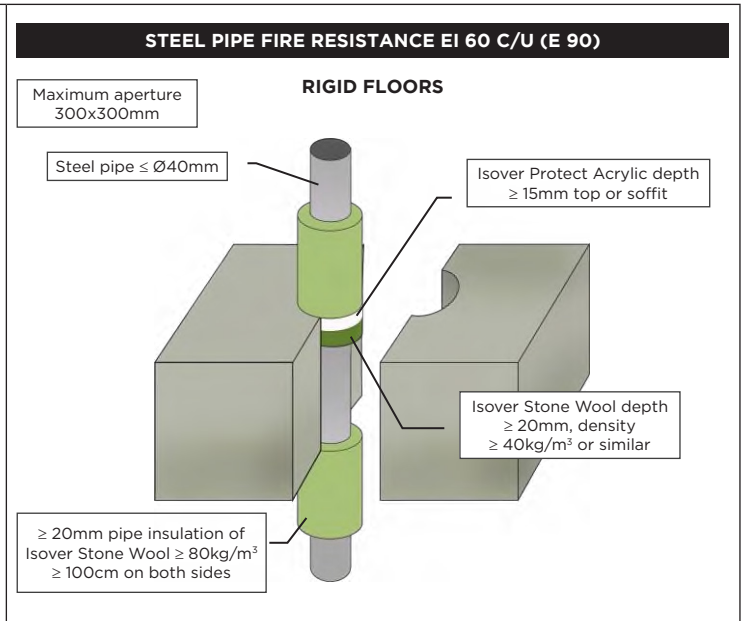
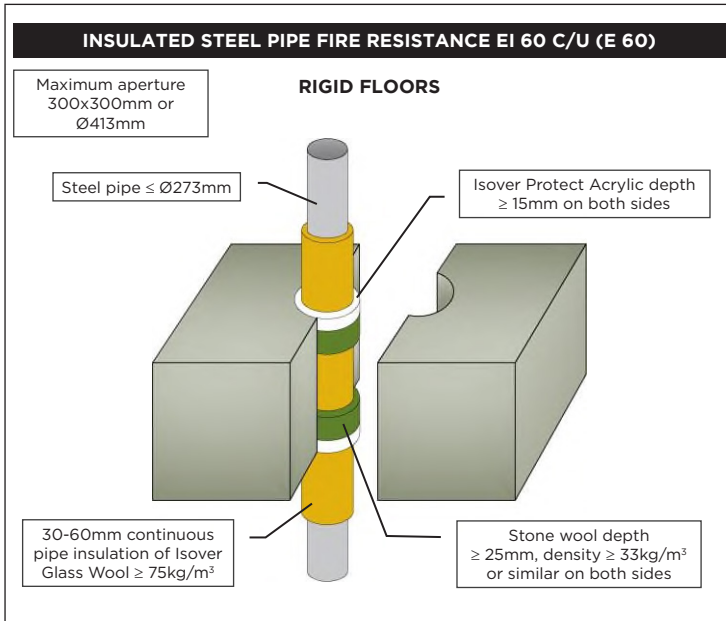
1. Before installing Isover Protect Acrylic, ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Isover Protect Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Isover for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. As Isover Protect Acrylic 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.
4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Isover Protect Acrylic diluted with water to prime the surfaces, helping adhesion and preventing excessive joint shrinkage.
5. When installing Isover Protect Acrylic in hollow floor slabs or boards, fire seals specified as single sided should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool, normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
6. Where single sided top face seals are described, these can also be used in composite floors (e.g., concrete filled, steel trapezoidal decking).
7. An aperture with or without penetrating services, can include a steel or plastic sleeve casted or friction fitted within rigid constructions. Plastic sleeves should have a maximum wall thickness of 14.6 mm.
8. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
9. Fill the gap or joint with Isover Protect Acrylic to the required depth. Refer to the drawings for guidance on joint design/dimensions. If installation does not have to meet any specific fire specification, it is recommended that a width to depth ratio of 2:1 is utilized, with a minimum depth of 12mm of sealant.
10. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
11. Isover Protect Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



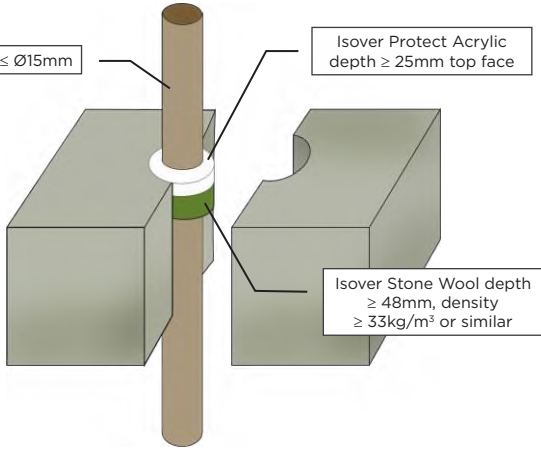
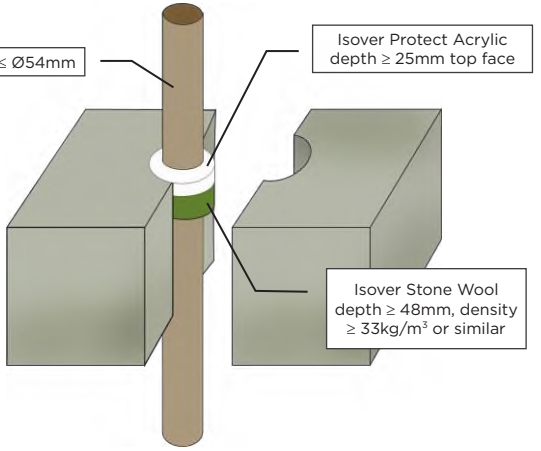
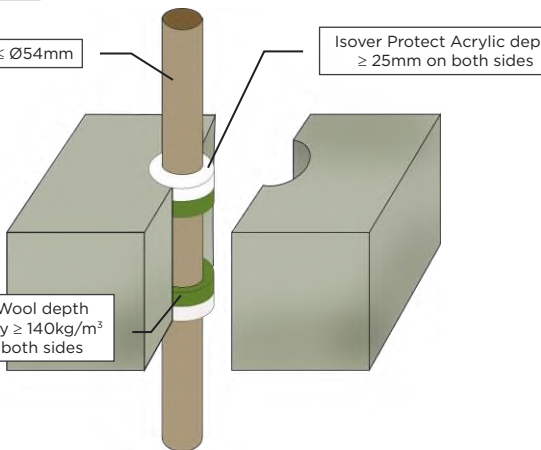
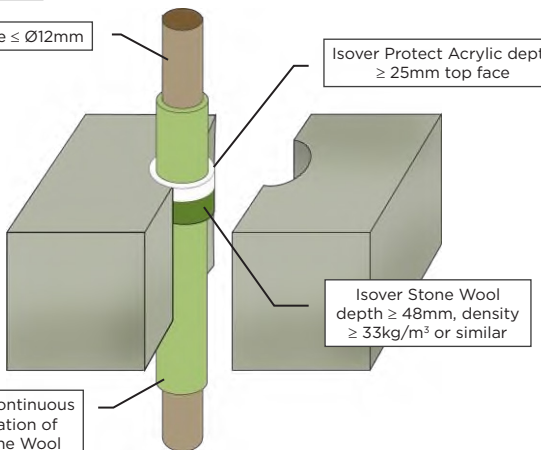
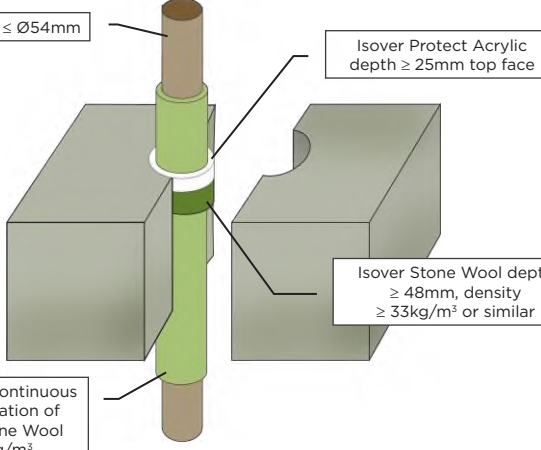
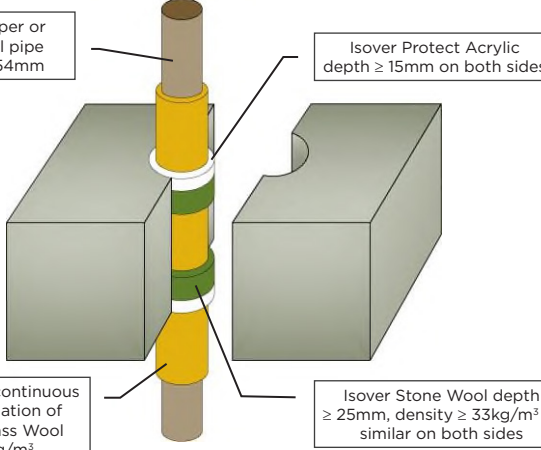


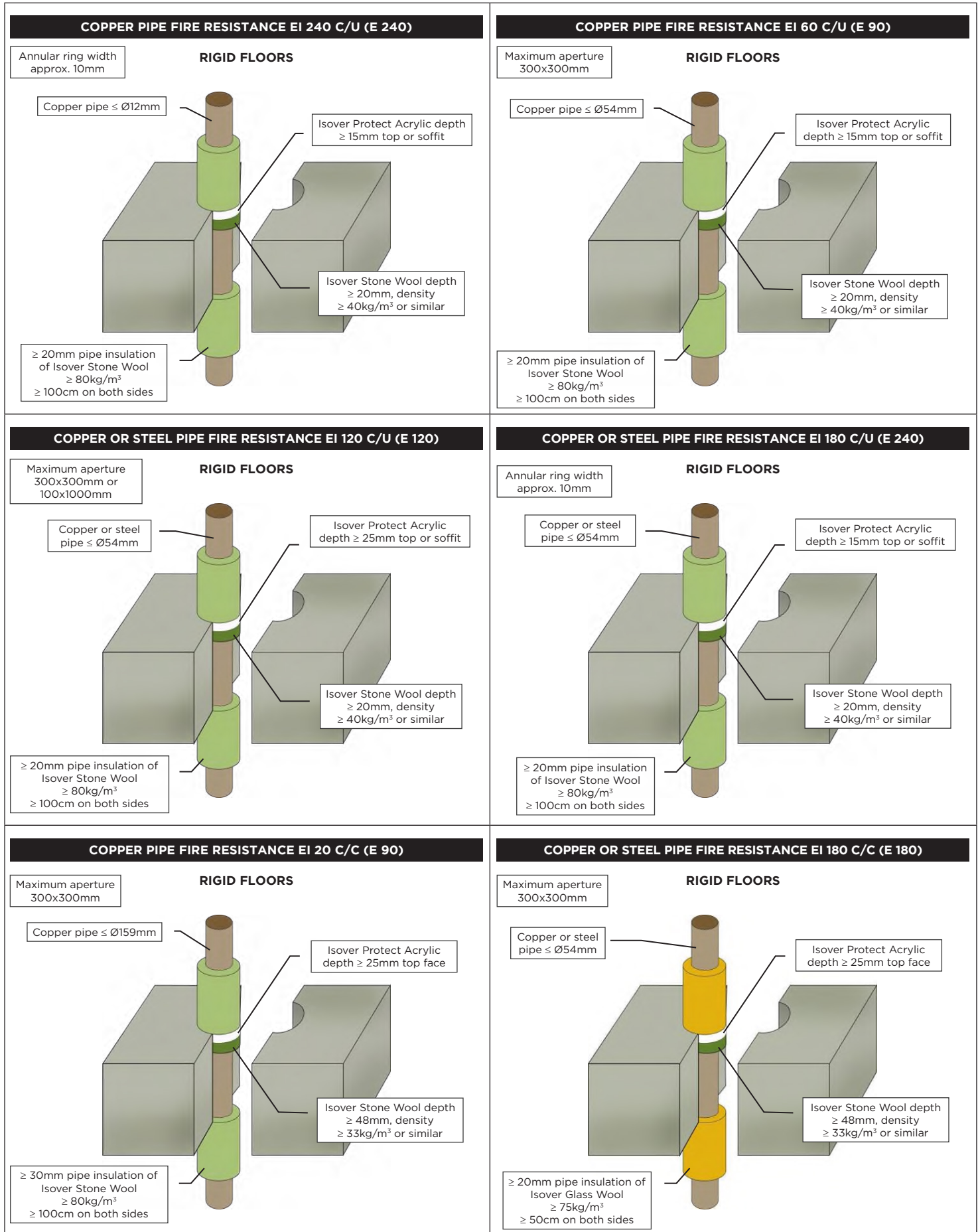


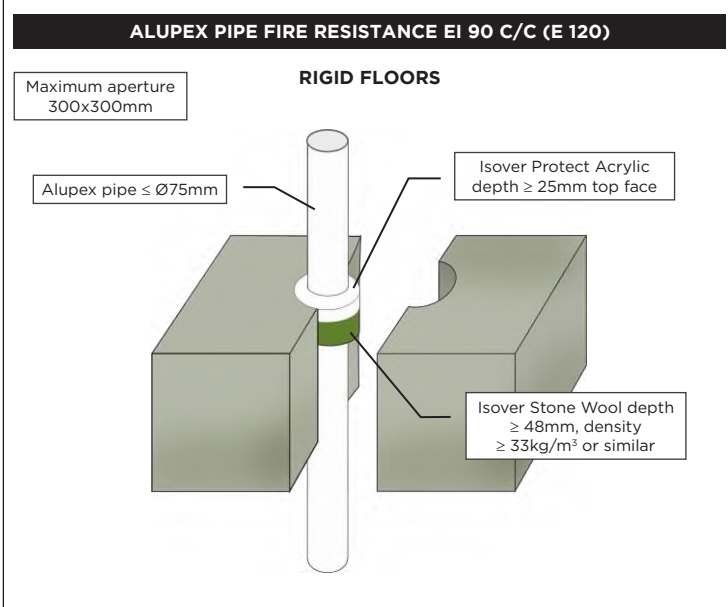
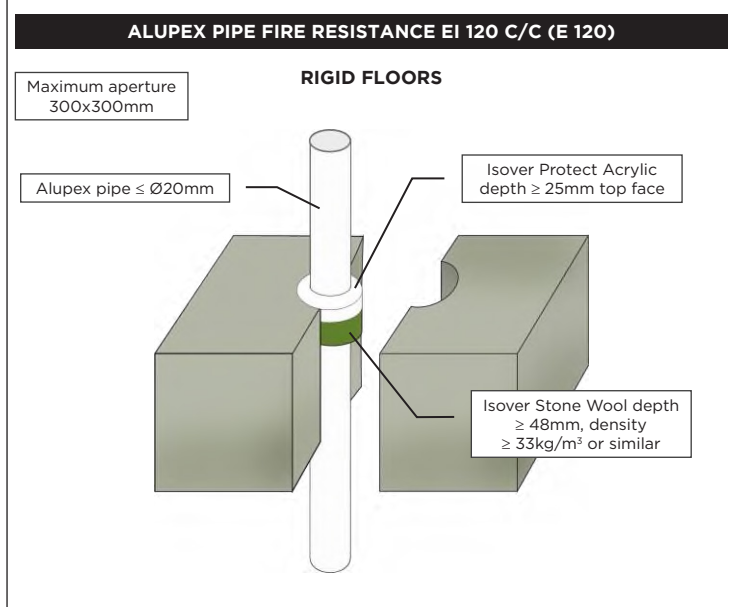
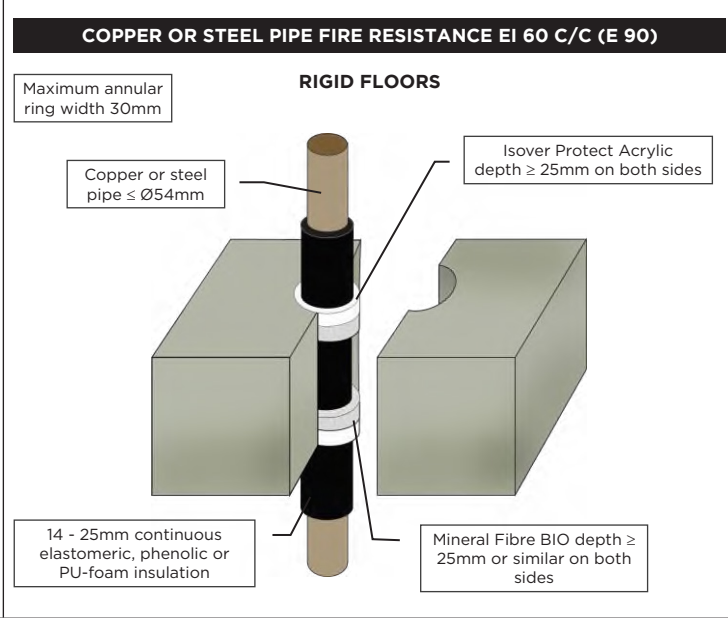
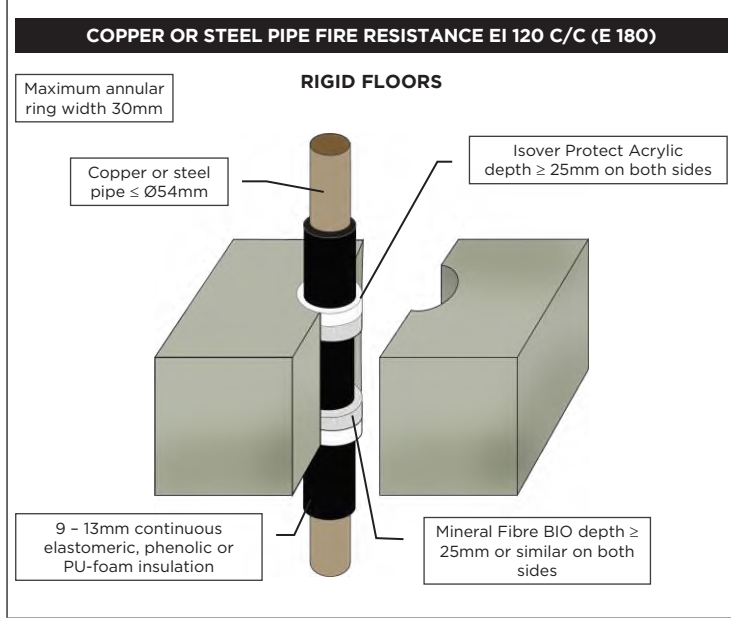
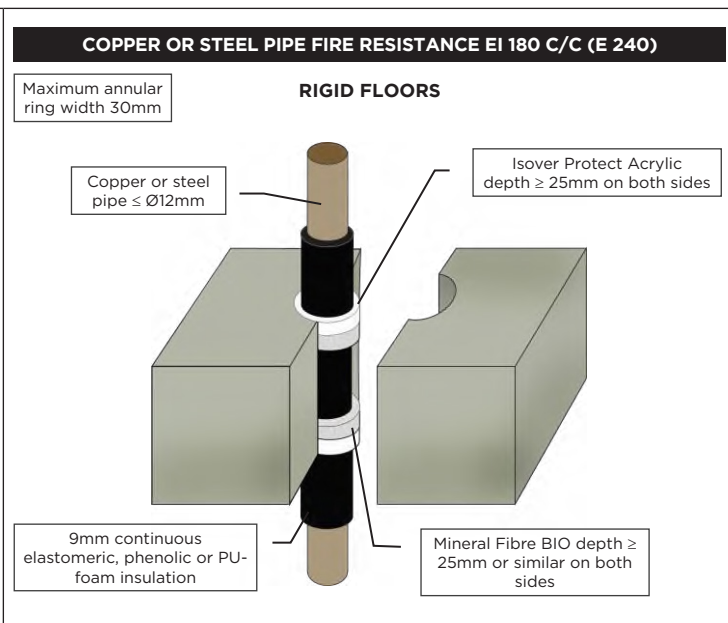
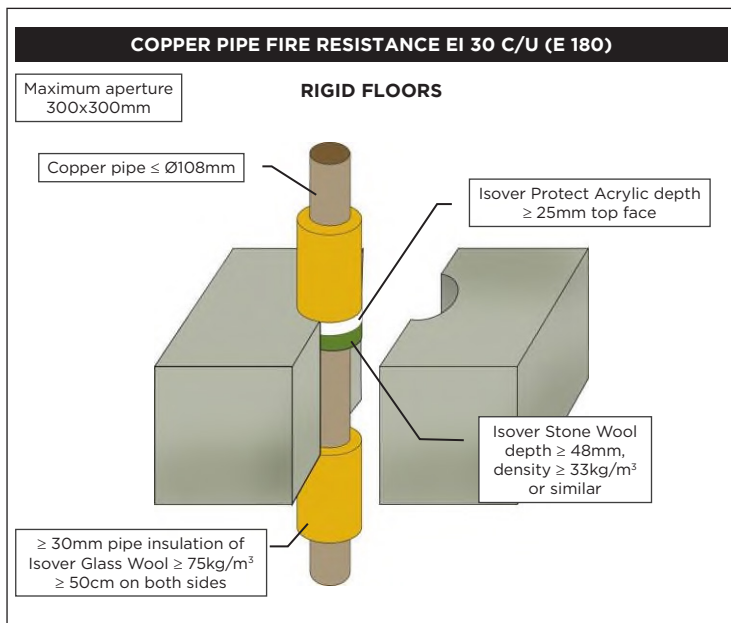


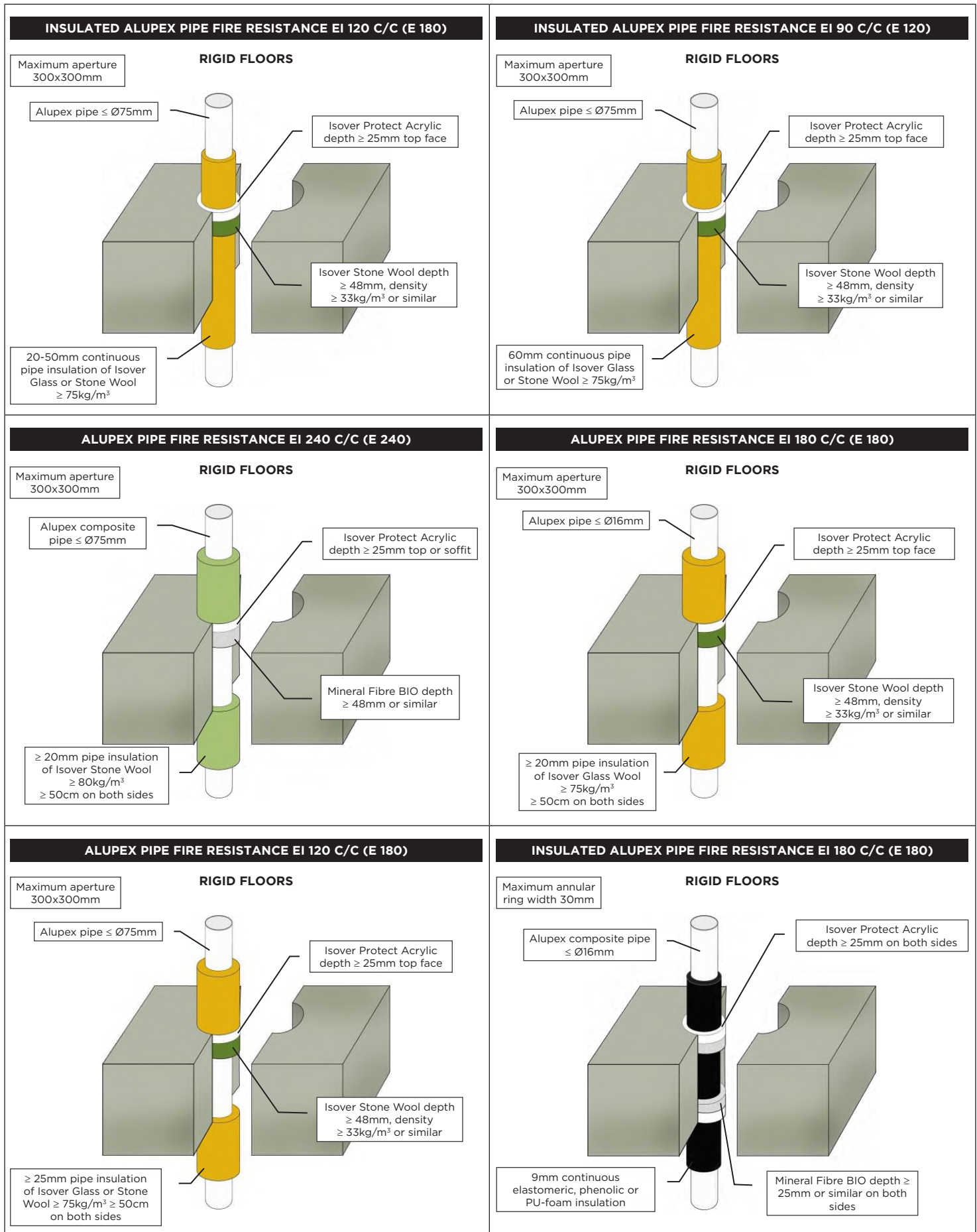


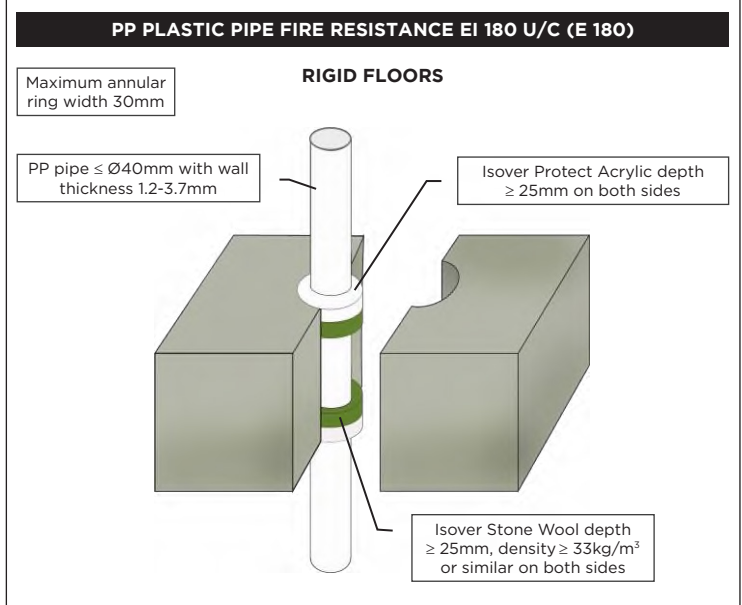
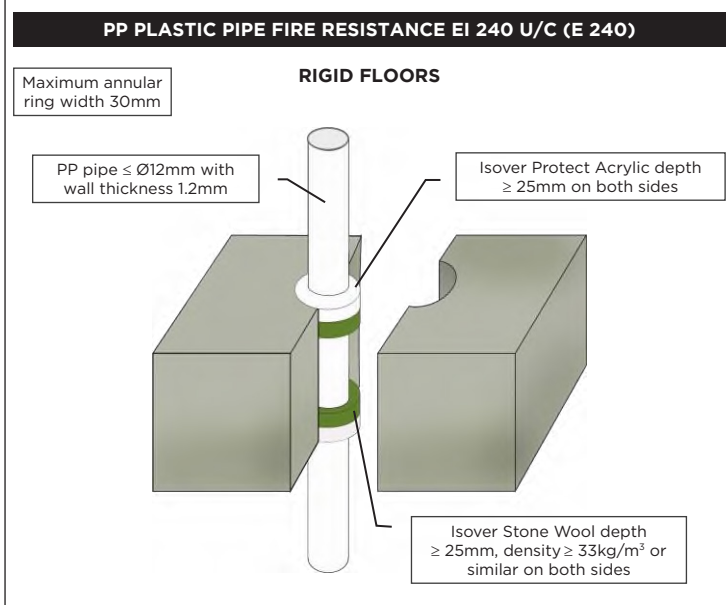
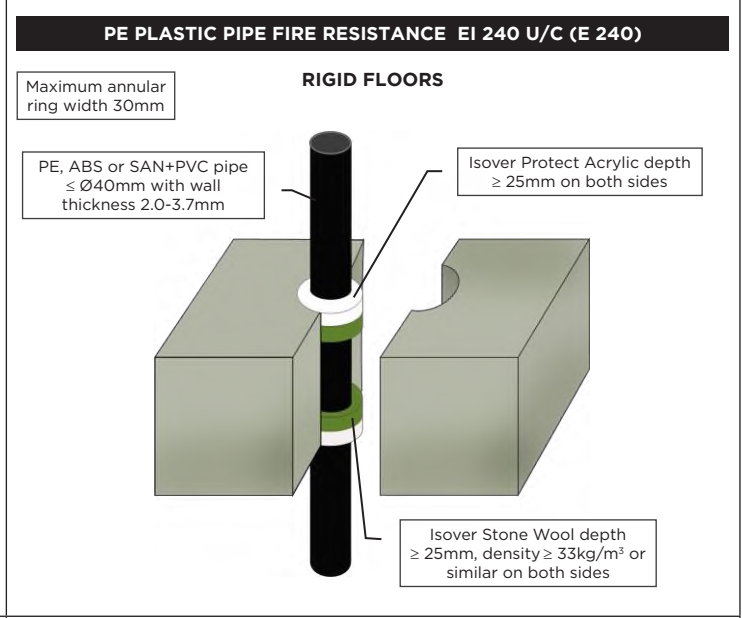
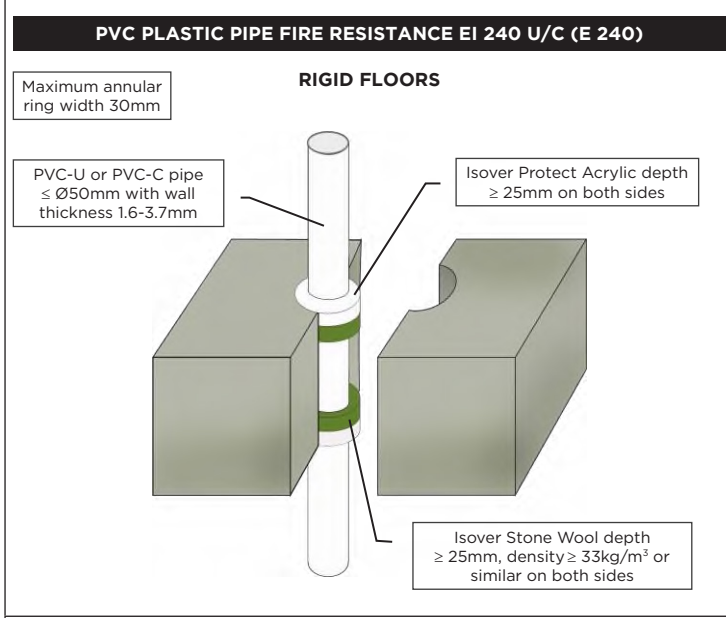
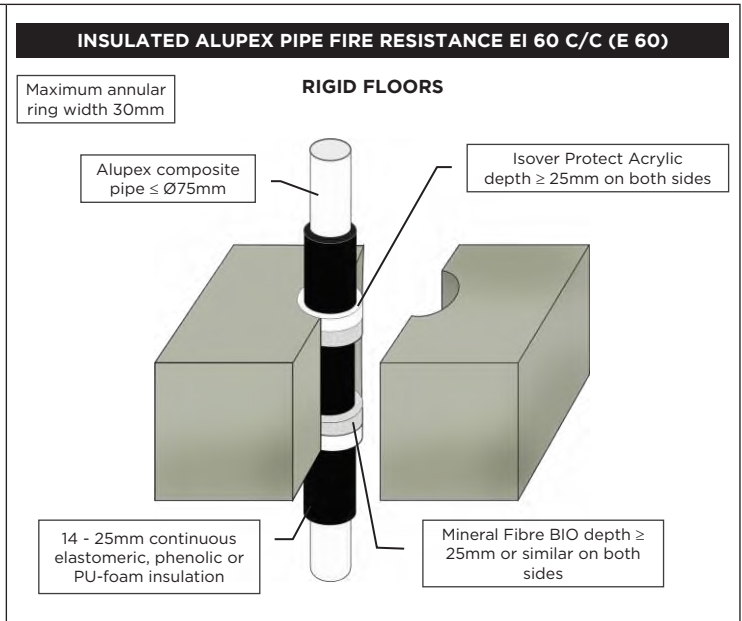
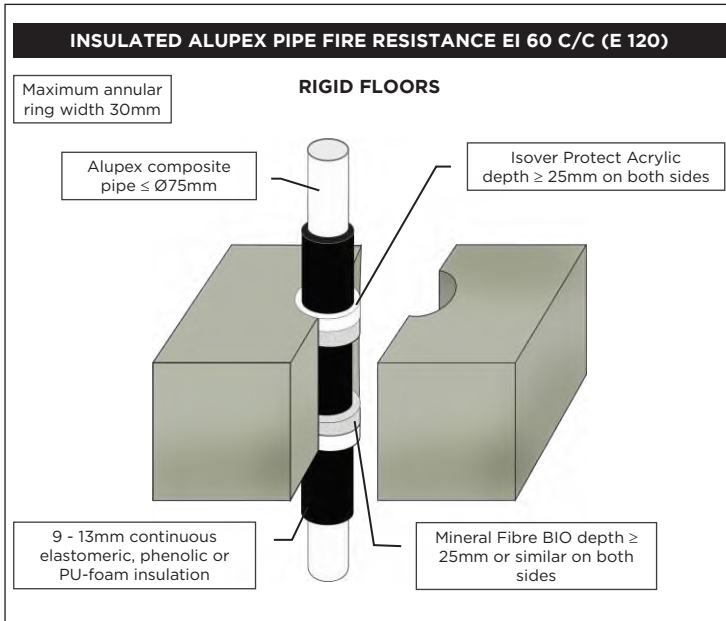
<p><b>STEEL PIPE FIRE RESISTANCE EI 90 C/U (E 240)</b></p> <p><b>RIGID FLOORS</b></p> <p>Annular ring width approx. 10mm</p> <p>Steel pipe <math>\leq \varnothing 219\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 15\text{mm}</math> top or soffit</p> <p>Isover Stone Wool depth <math>\geq 20\text{mm}</math>, density <math>\geq 40\text{kg/m}^3</math> or similar</p> <p><math>\geq 30\text{mm}</math> pipe insulation of Isover Stone Wool <math>\geq 80\text{kg/m}^3</math> <math>\geq 100\text{cm}</math> on both sides</p>	<p><b>STEEL PIPE FIRE RESISTANCE EI 120 C/U (E 240)</b></p> <p><b>RIGID FLOORS</b></p> <p>Maximum aperture 300x300mm or 100x1000mm</p> <p>Steel pipe <math>\leq \varnothing 219\text{mm}</math></p> <p><math>\geq 30\text{mm}</math> pipe insulation of Isover Stone Wool <math>\geq 80\text{kg/m}^3</math> or similar, <math>\geq 100\text{cm}</math> on both sides</p> <p>Isover Protect Acrylic depth <math>\geq 15\text{mm}</math> on both sides</p> <p>Isover Stone Wool depth <math>\geq 20\text{mm}</math>, density <math>\geq 40\text{kg/m}^3</math> or similar on both sides</p>
<p><b>STEEL PIPE FIRE RESISTANCE EI 60 C/C (E 180)</b></p> <p><b>RIGID FLOORS</b></p> <p>Maximum aperture 300x300mm</p> <p>Steel pipe <math>\leq \varnothing 273\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p> <p><math>\geq 30\text{mm}</math> pipe insulation of Isover Glass Wool <math>\geq 75\text{kg/m}^3</math> <math>\geq 50\text{cm}</math> on both sides</p>	<p><b>INSULATED STEEL PIPE FIRE RESISTANCE EI 180 C/U (E 180)</b></p> <p><b>RIGID FLOORS</b></p> <p>Maximum annular ring width 30mm</p> <p>Steel pipe <math>\leq \varnothing 40\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> on both sides</p> <p>Isover Stone Wool depth <math>\geq 20\text{mm}</math>, density <math>\geq 40\text{kg/m}^3</math> or similar on both sides</p> <p>13 - 19mm continuous elastomeric, phenolic or PU-foam insulation</p>
<p><b>INSULATED STEEL PIPE FIRE RESISTANCE EI 60 C/U (E 60)</b></p> <p><b>RIGID FLOORS</b></p> <p>Maximum annular ring width 30mm</p> <p>Steel pipe <math>\leq \varnothing 165\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> on both sides</p> <p>Mineral Fibre BIO depth <math>\geq 25\text{mm}</math> or similar on both sides</p> <p>13 - 19mm continuous elastomeric, phenolic or PU-foam insulation</p>	<p><b>COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)</b></p> <p><b>RIGID FLOORS</b></p> <p>Maximum aperture 300x300mm</p> <p>Copper pipe <math>\leq \varnothing 6\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p>

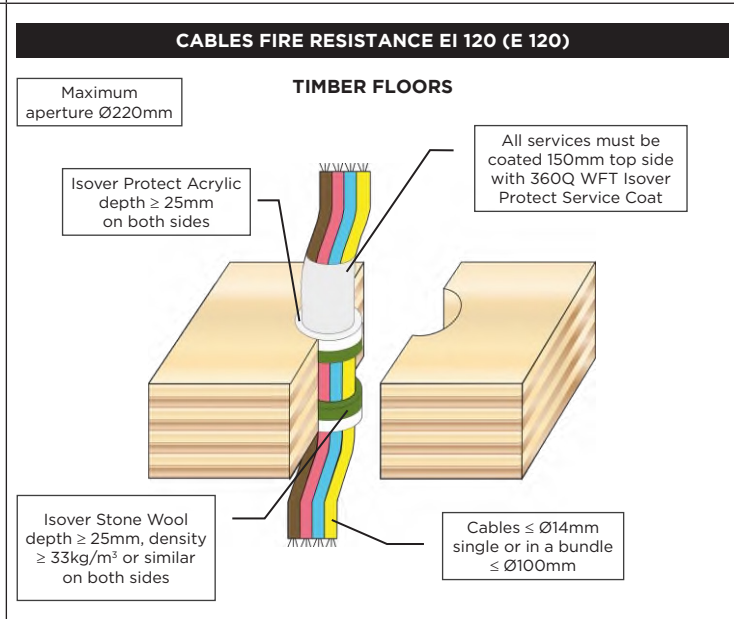
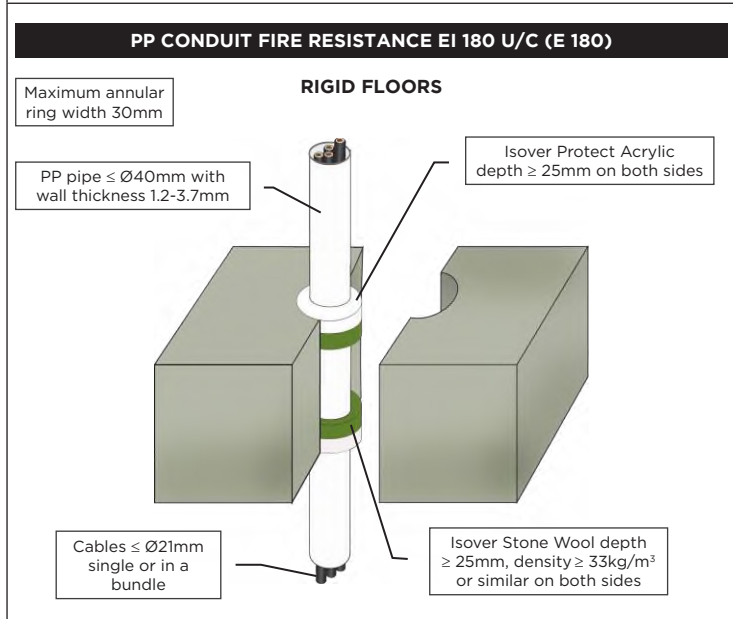
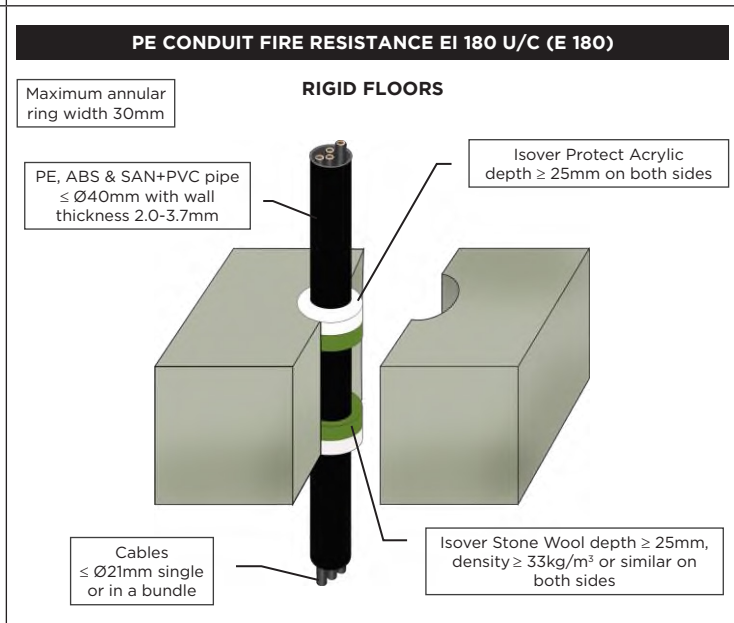
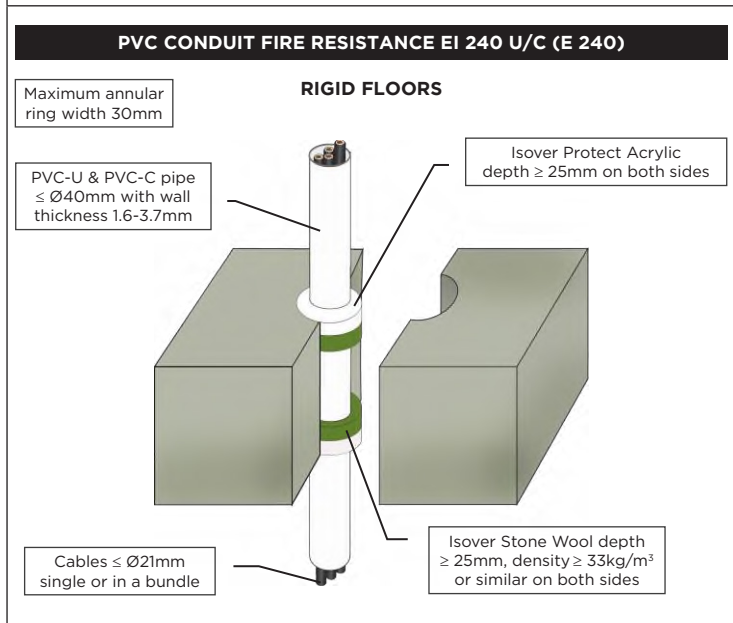
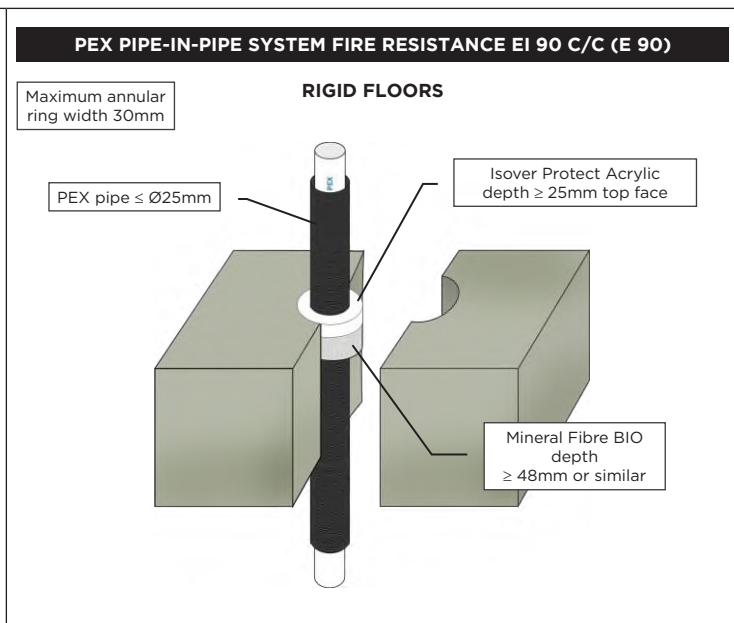
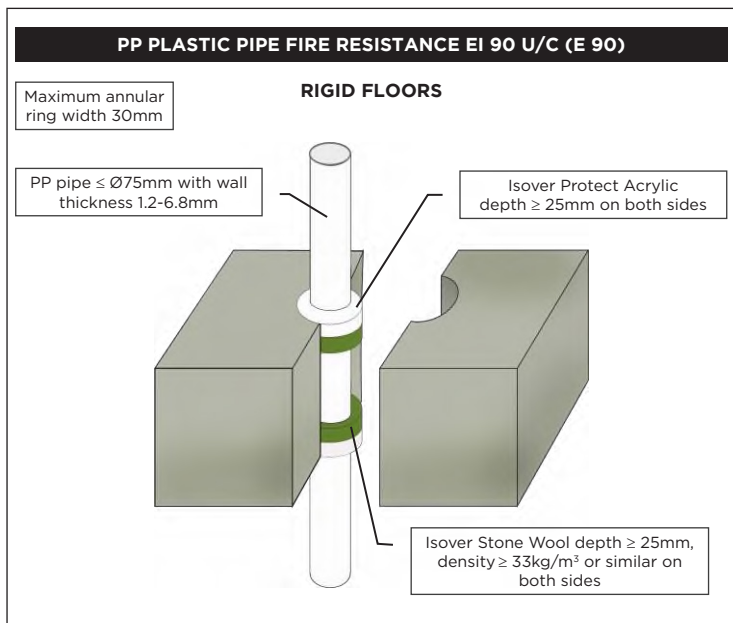
<p><b>COPPER PIPE FIRE RESISTANCE EI 60 C/C (E 120)</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper pipe <math>\leq \varnothing 15\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p> 	<p><b>COPPER PIPE FIRE RESISTANCE E 120 C/C</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper pipe <math>\leq \varnothing 54\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p> 
<p><b>COPPER PIPE FIRE RESISTANCE EI 20 C/U (E 120)</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper pipe <math>\leq \varnothing 54\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> on both sides</p> <p>Isover Stone Wool depth <math>\geq 25\text{mm}</math>, density <math>\geq 140\text{kg/m}^3</math> or similar on both sides</p> 	<p><b>INSULATED COPPER PIPE FIRE RESISTANCE EI 240 C/C (E 240)</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper pipe <math>\leq \varnothing 12\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p> <p>20-80mm continuous pipe insulation of Isover Stone Wool <math>\geq 80\text{kg/m}^3</math></p> 
<p><b>INSULATED COPPER PIPE FIRE RESISTANCE EI 180 C/C (E 240)</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper pipe <math>\leq \varnothing 54\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 25\text{mm}</math> top face</p> <p>Isover Stone Wool depth <math>\geq 48\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar</p> <p>20-80mm continuous pipe insulation of Isover Stone Wool <math>\geq 80\text{kg/m}^3</math></p> 	<p><b>INSULATED COPPER PIPE FIRE RESISTANCE EI 120 C/C (E 120)</b></p> <p>Maximum aperture 300x300mm</p> <p><b>RIGID FLOORS</b></p> <p>Copper or steel pipe <math>\leq \varnothing 54\text{mm}</math></p> <p>Isover Protect Acrylic depth <math>\geq 15\text{mm}</math> on both sides</p> <p>Isover Stone Wool depth <math>\geq 25\text{mm}</math>, density <math>\geq 33\text{kg/m}^3</math> or similar on both sides</p> <p>20-60mm continuous pipe insulation of Isover Glass Wool <math>\geq 75\text{kg/m}^3</math></p> 

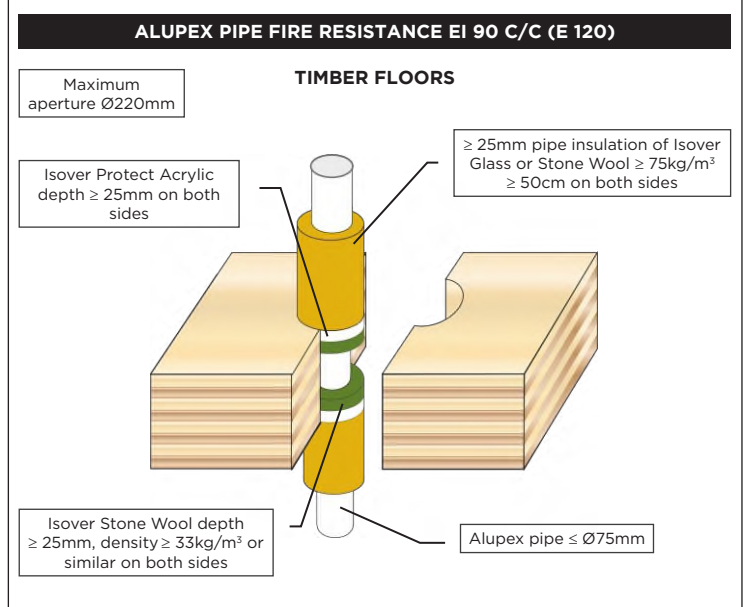
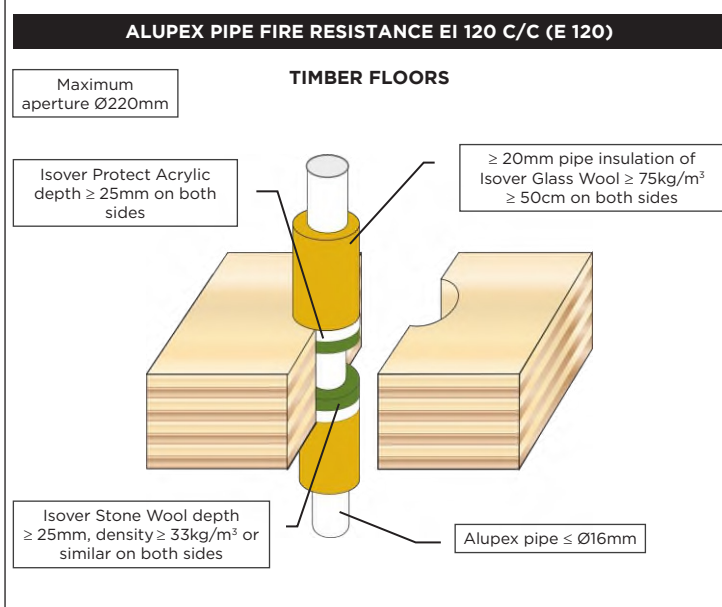
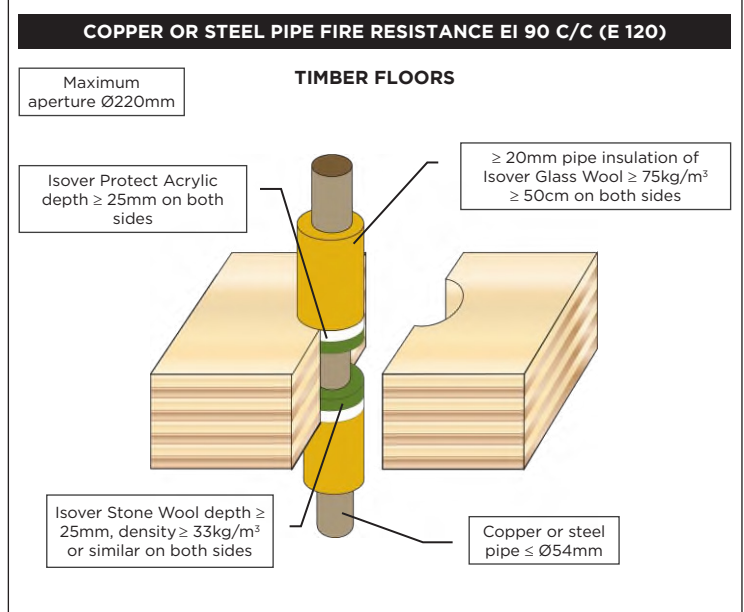
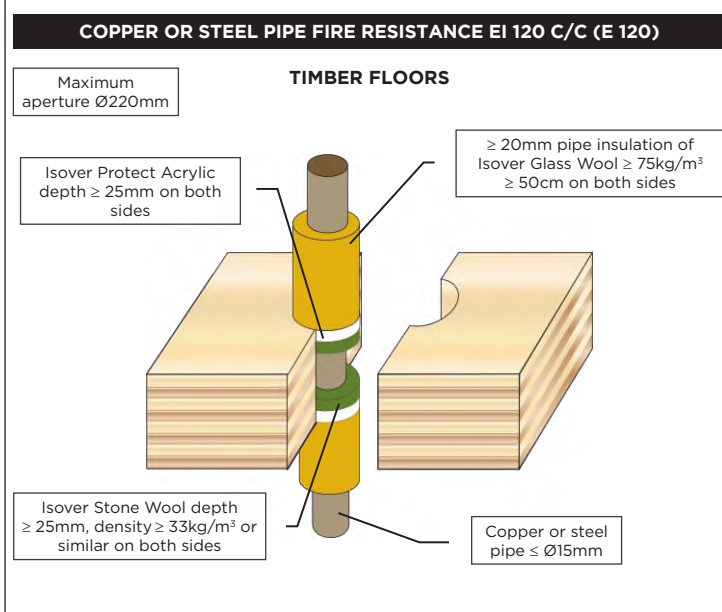
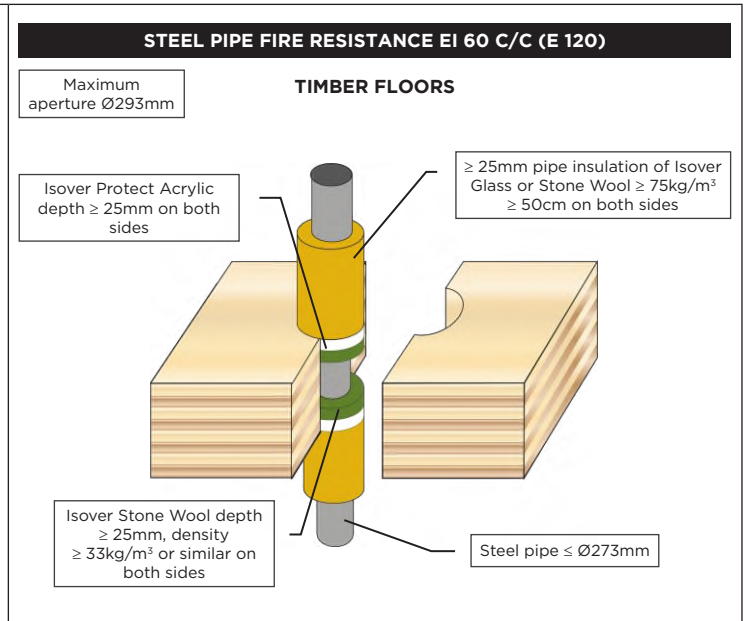
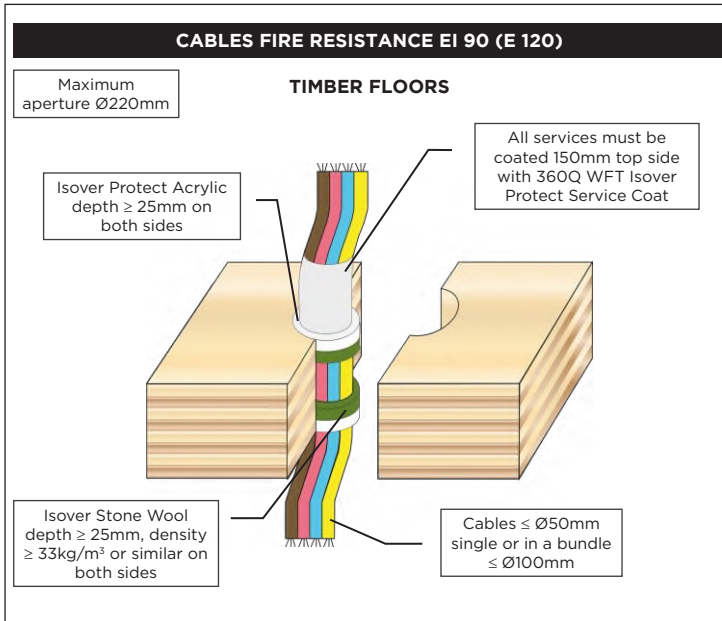


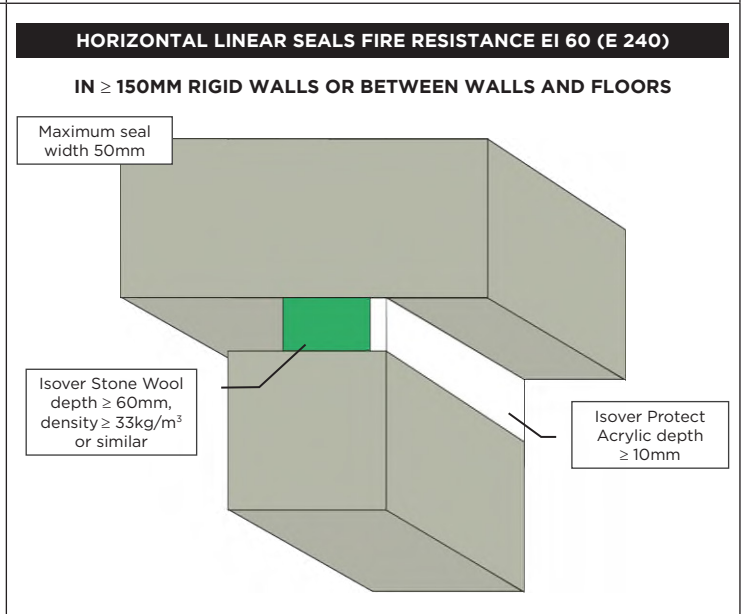
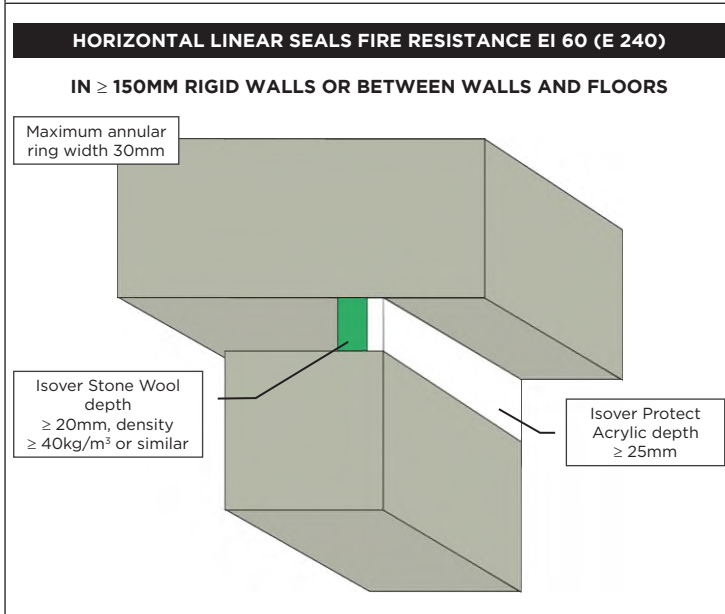
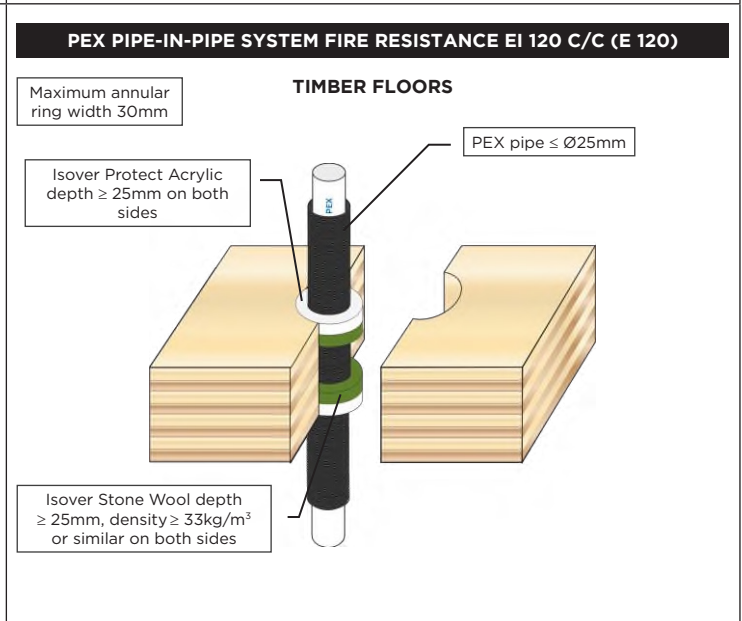
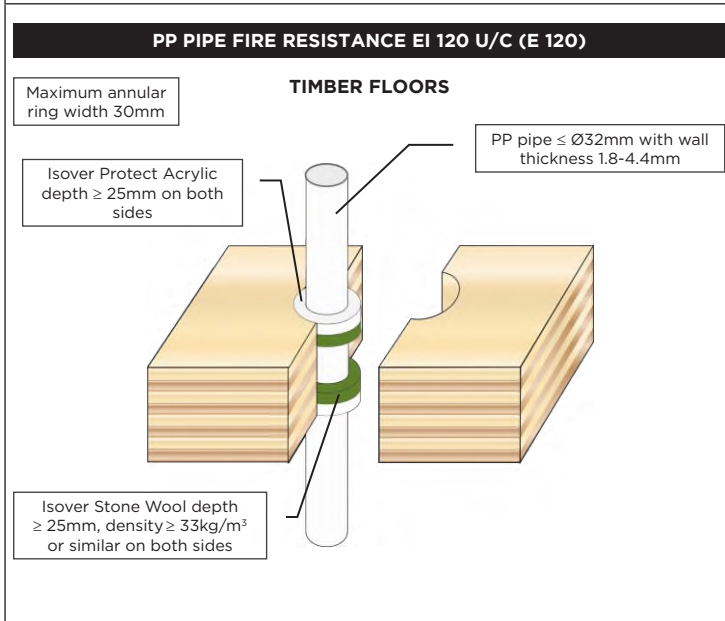
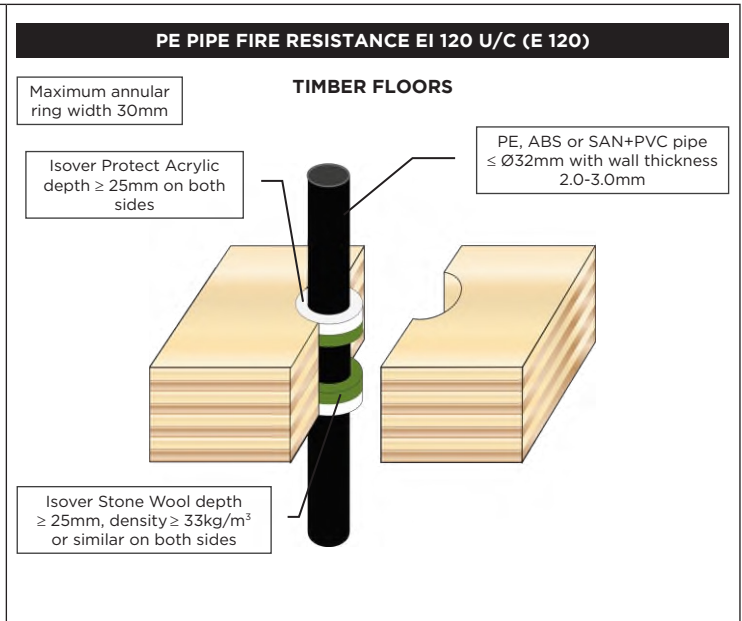
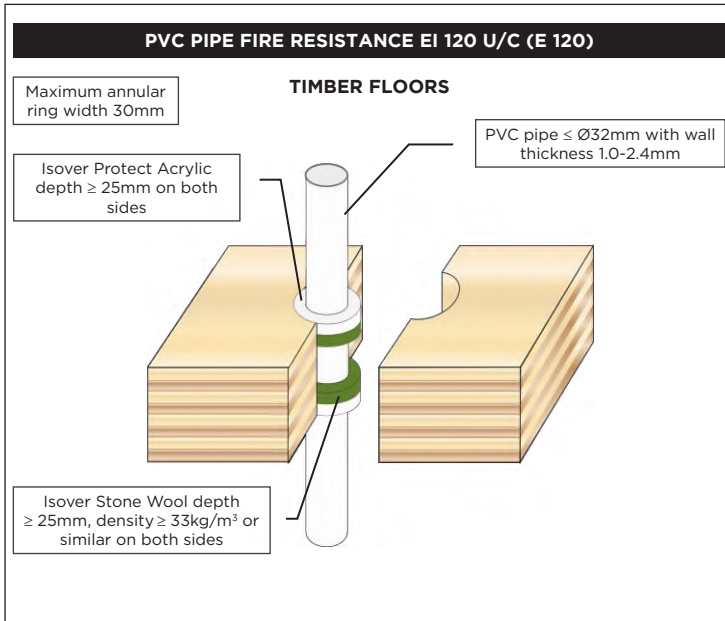


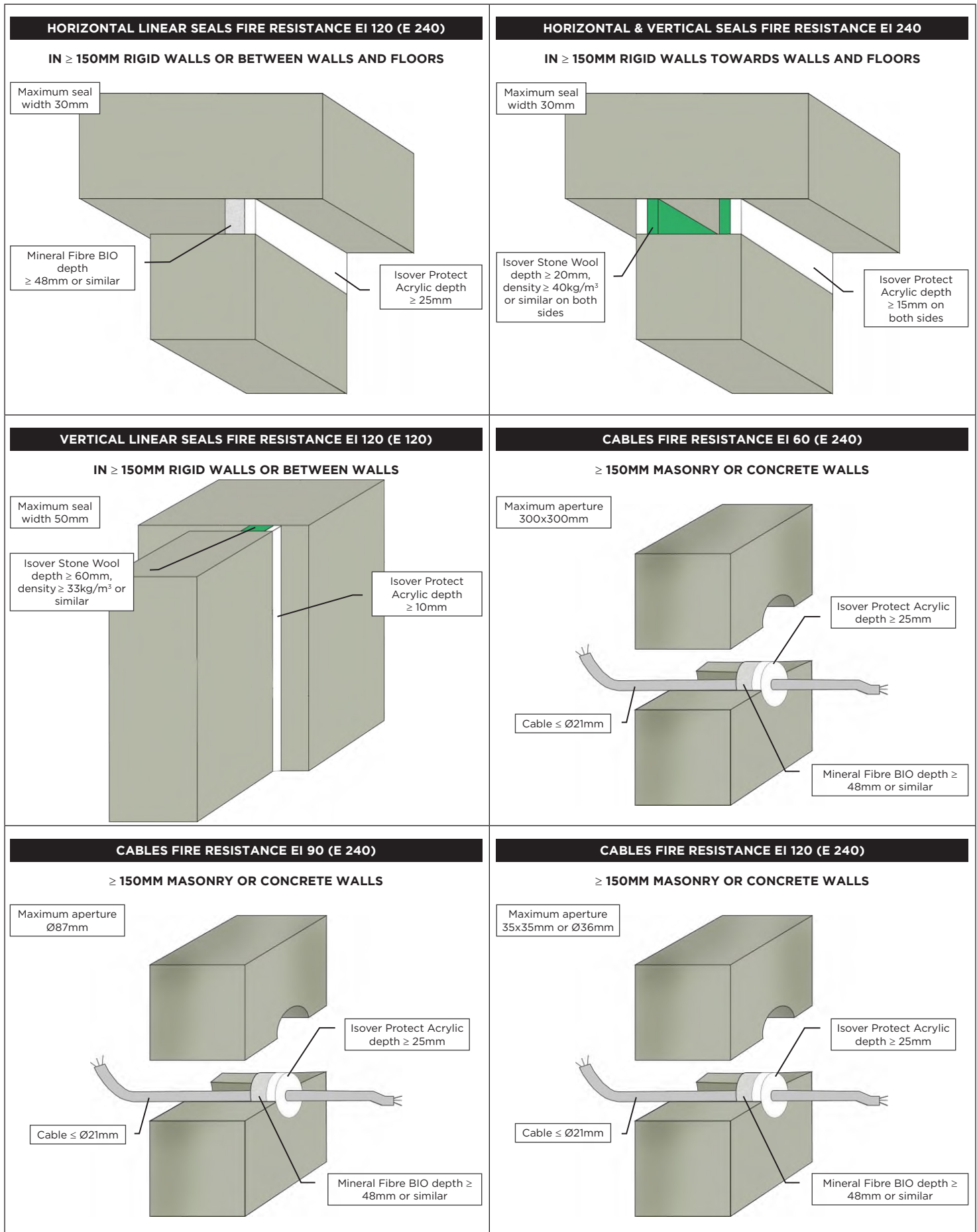


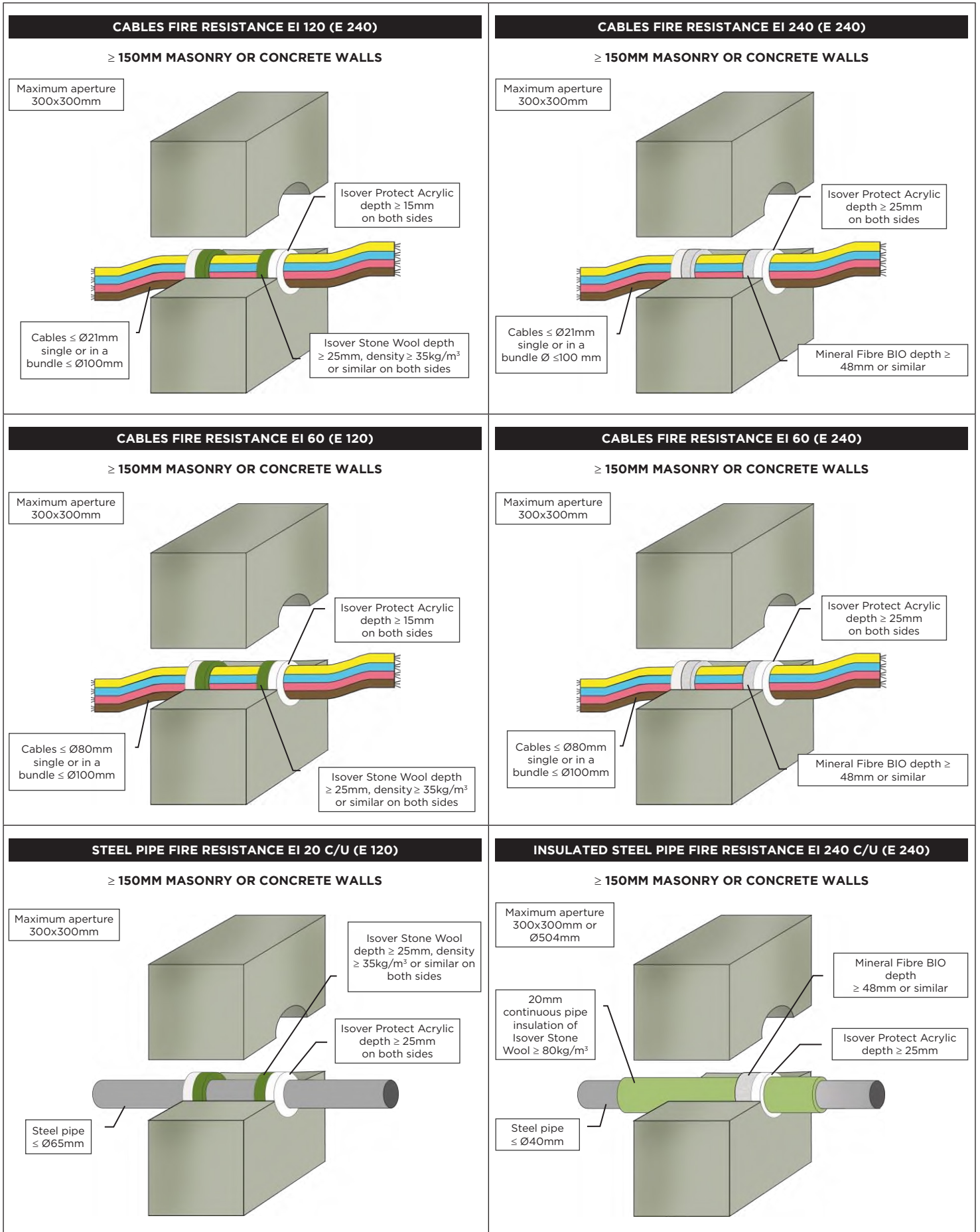


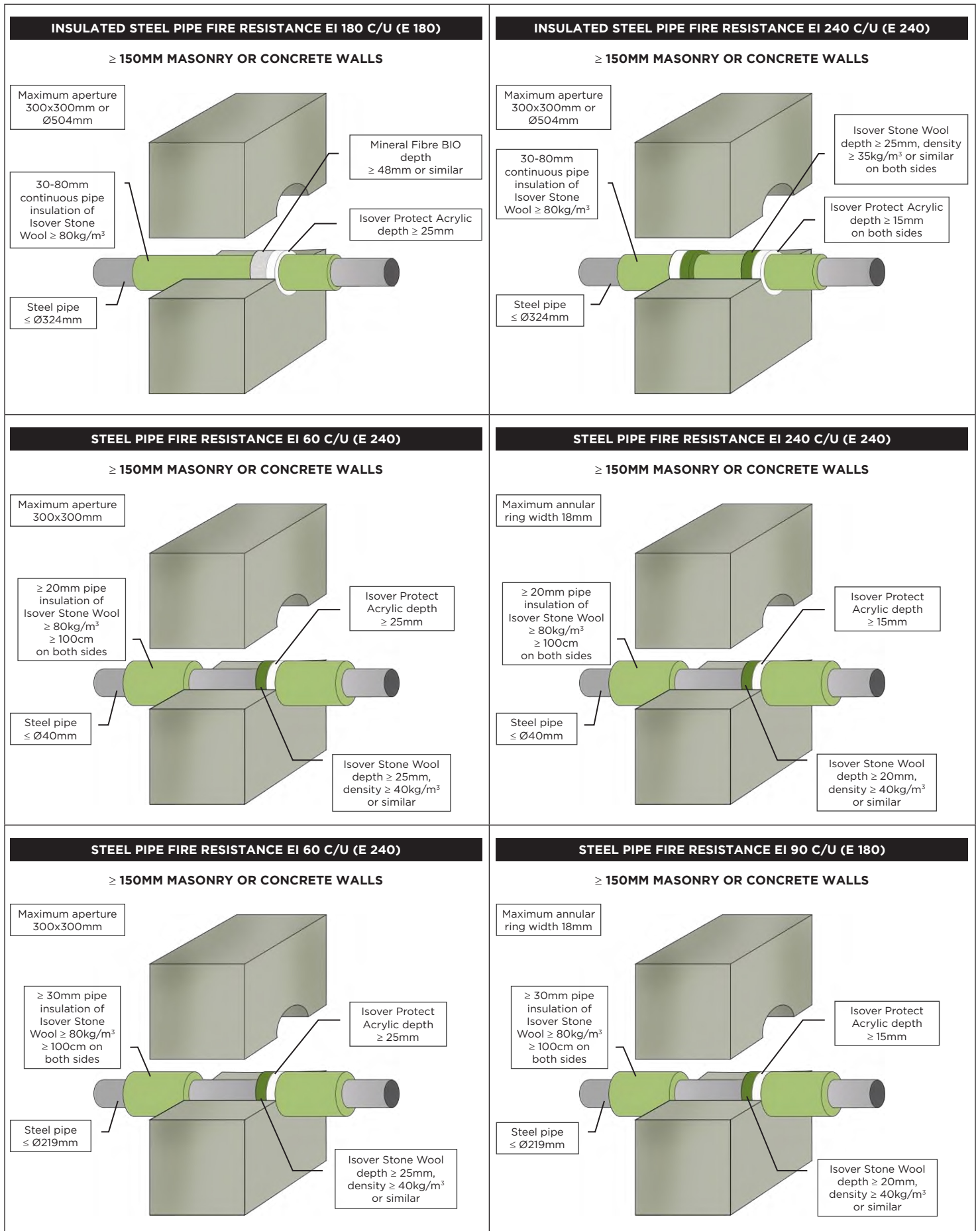


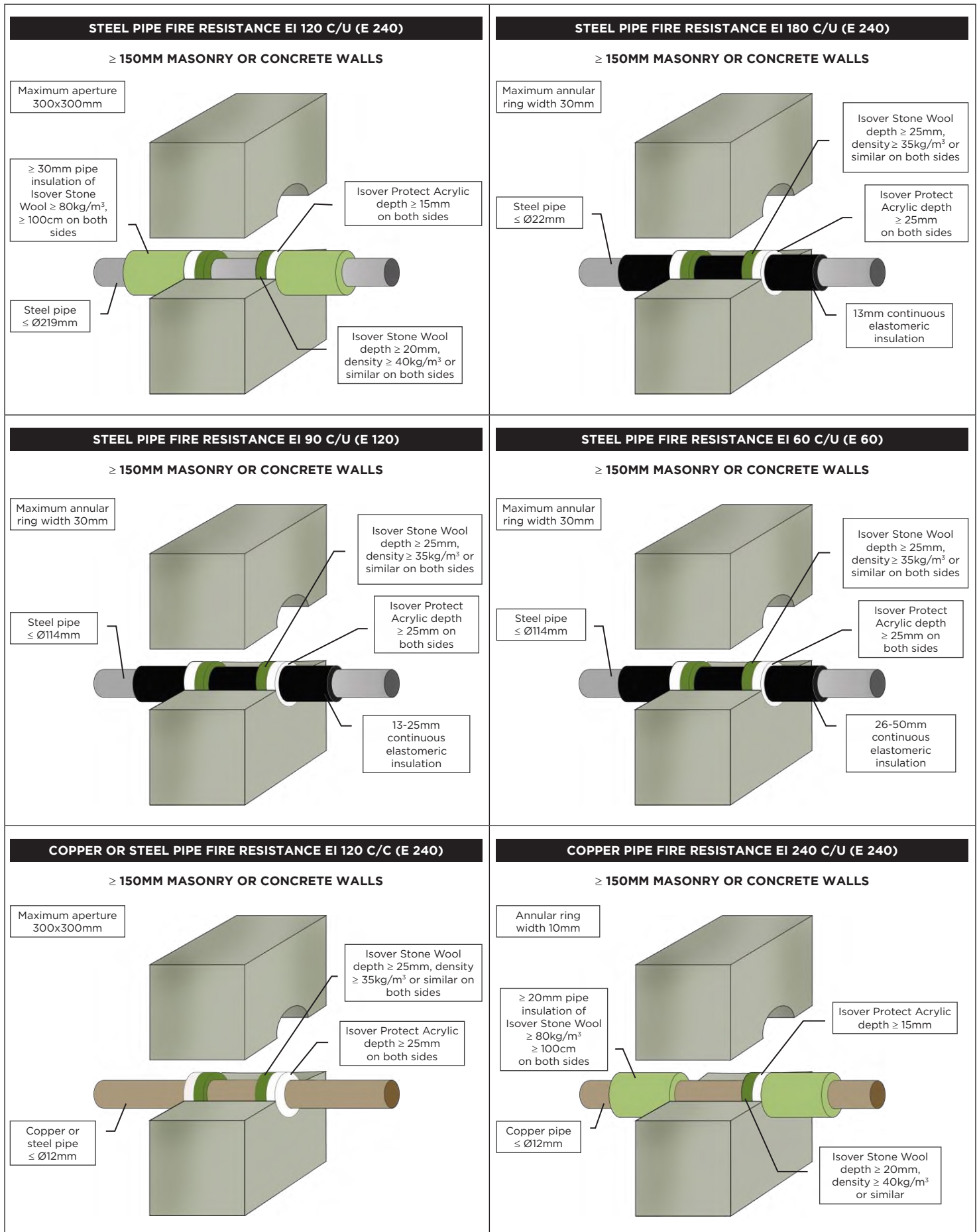


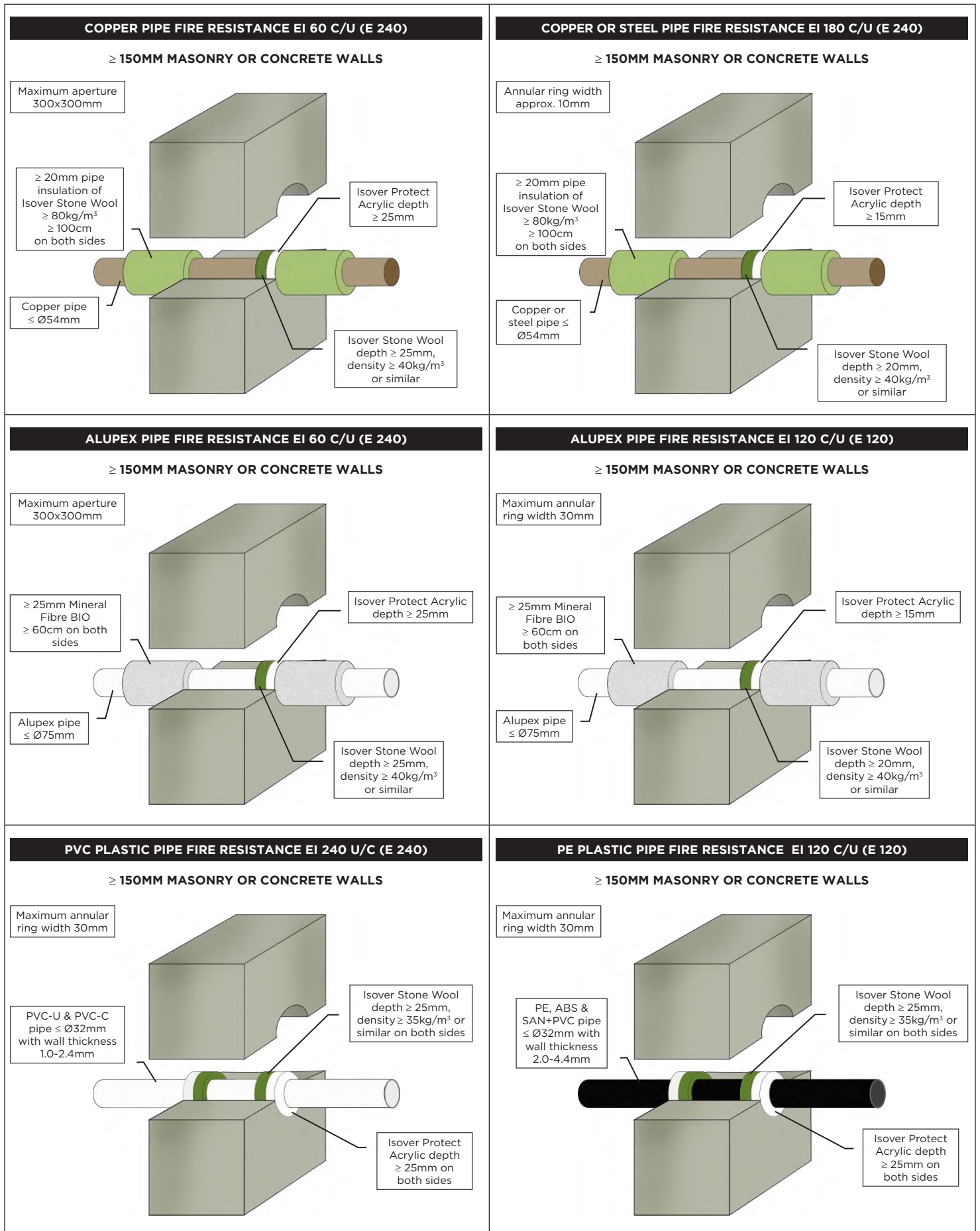


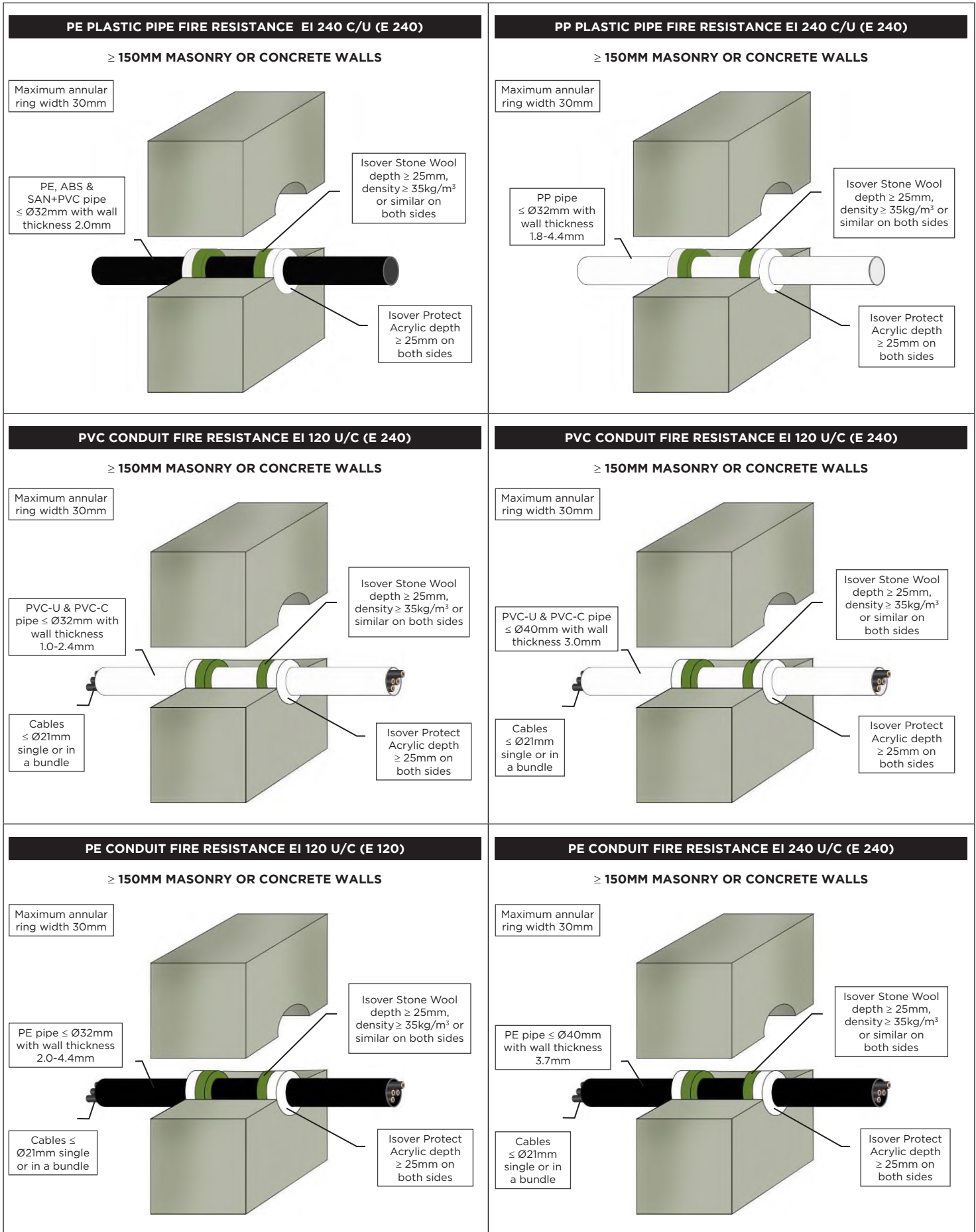


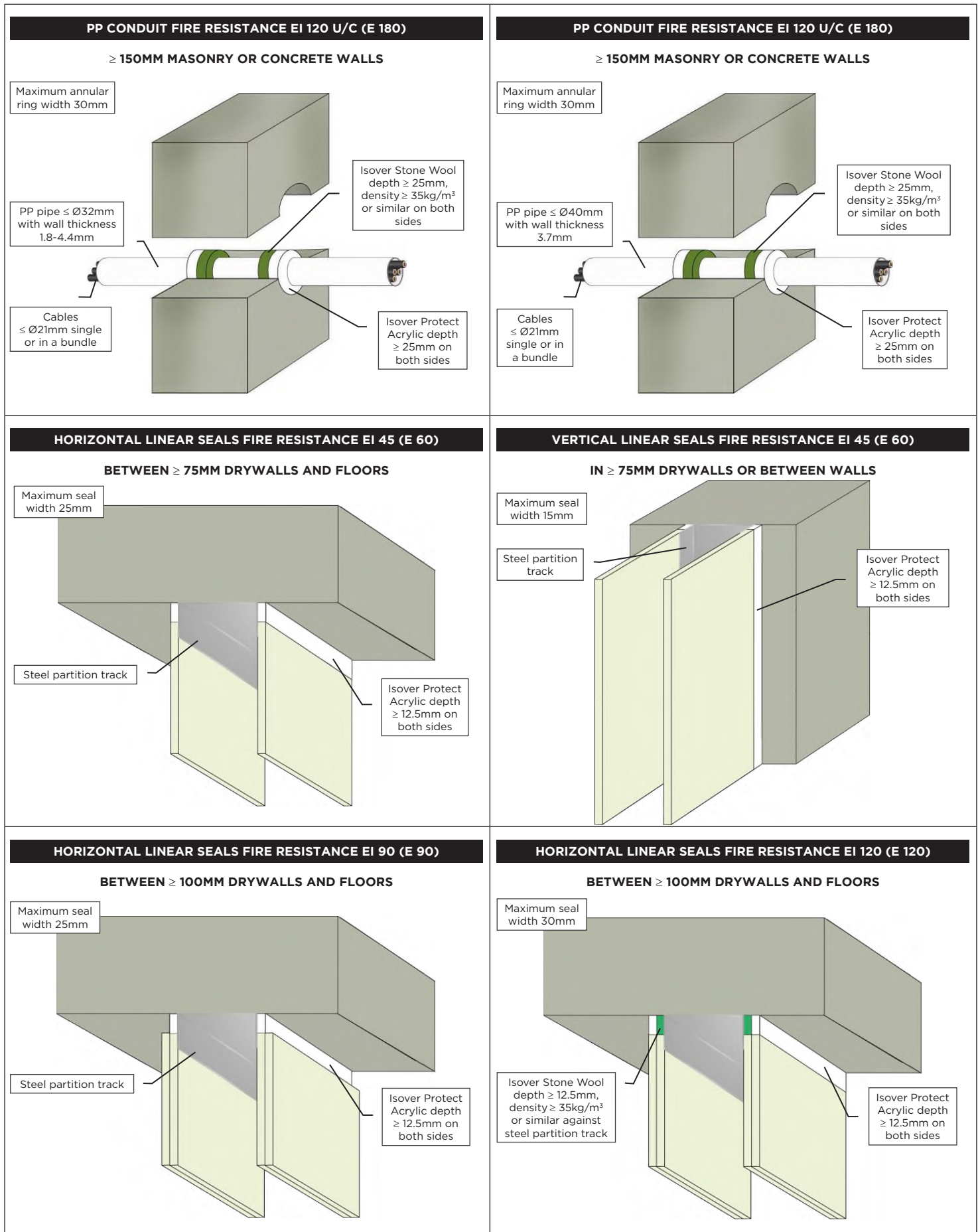


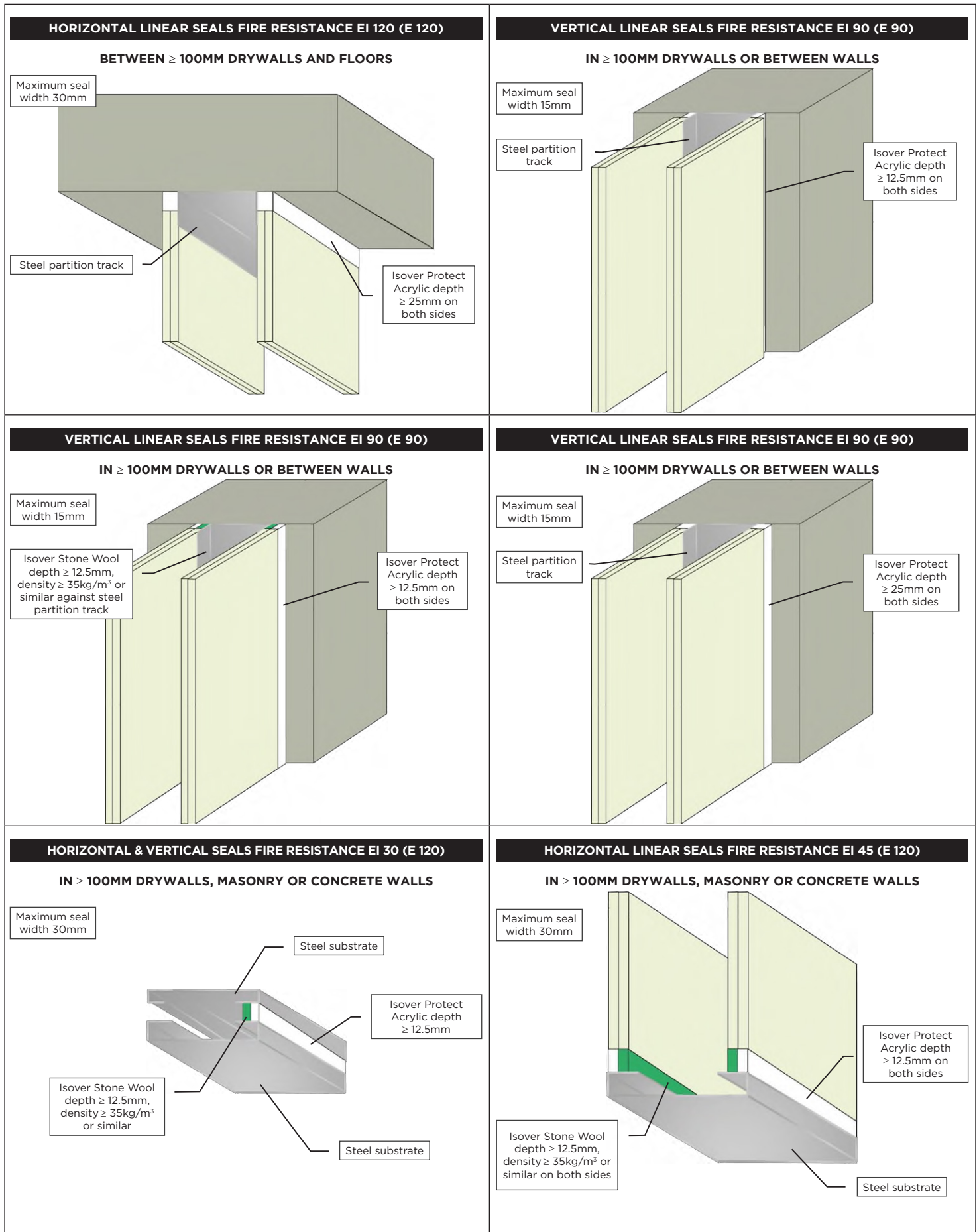




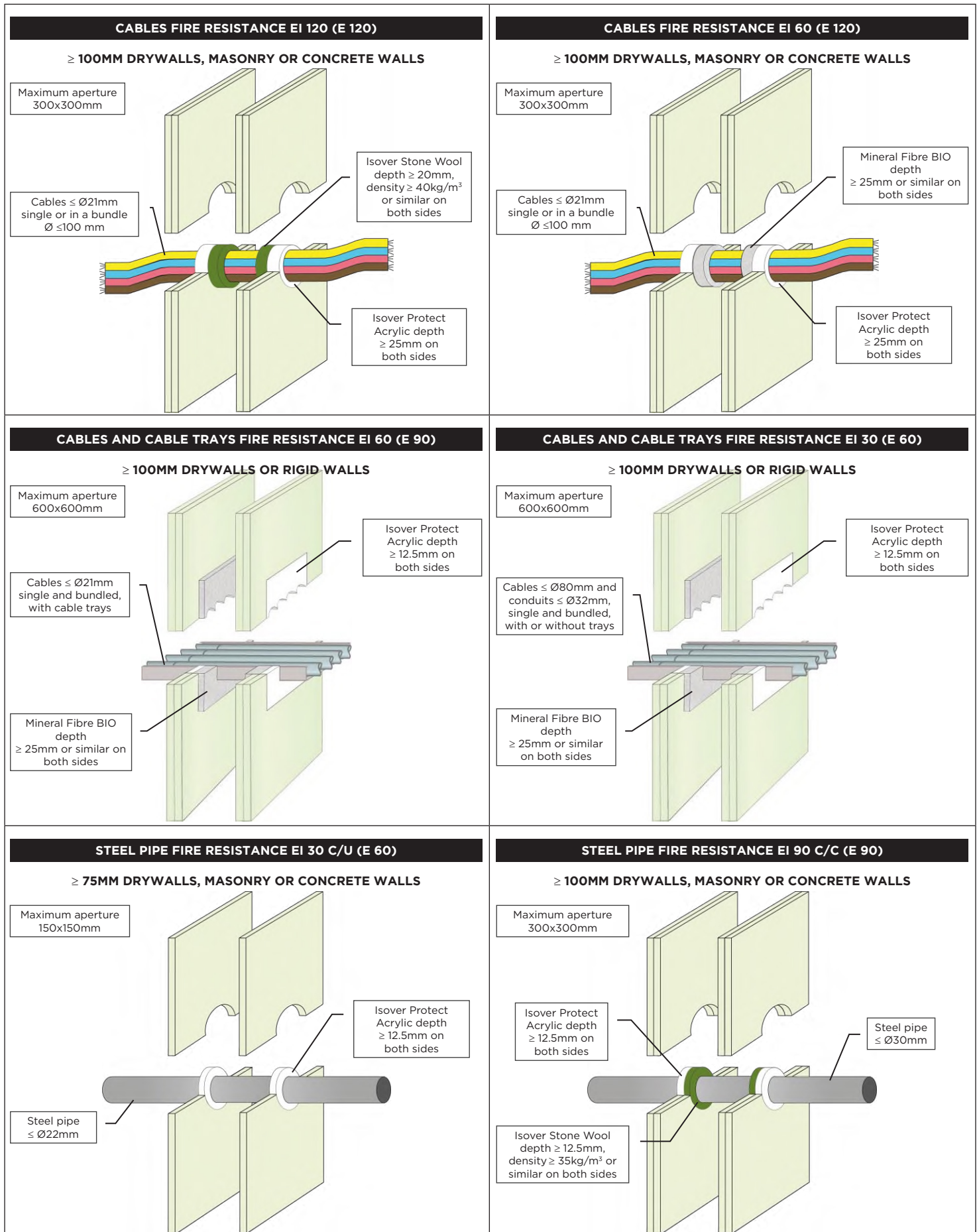


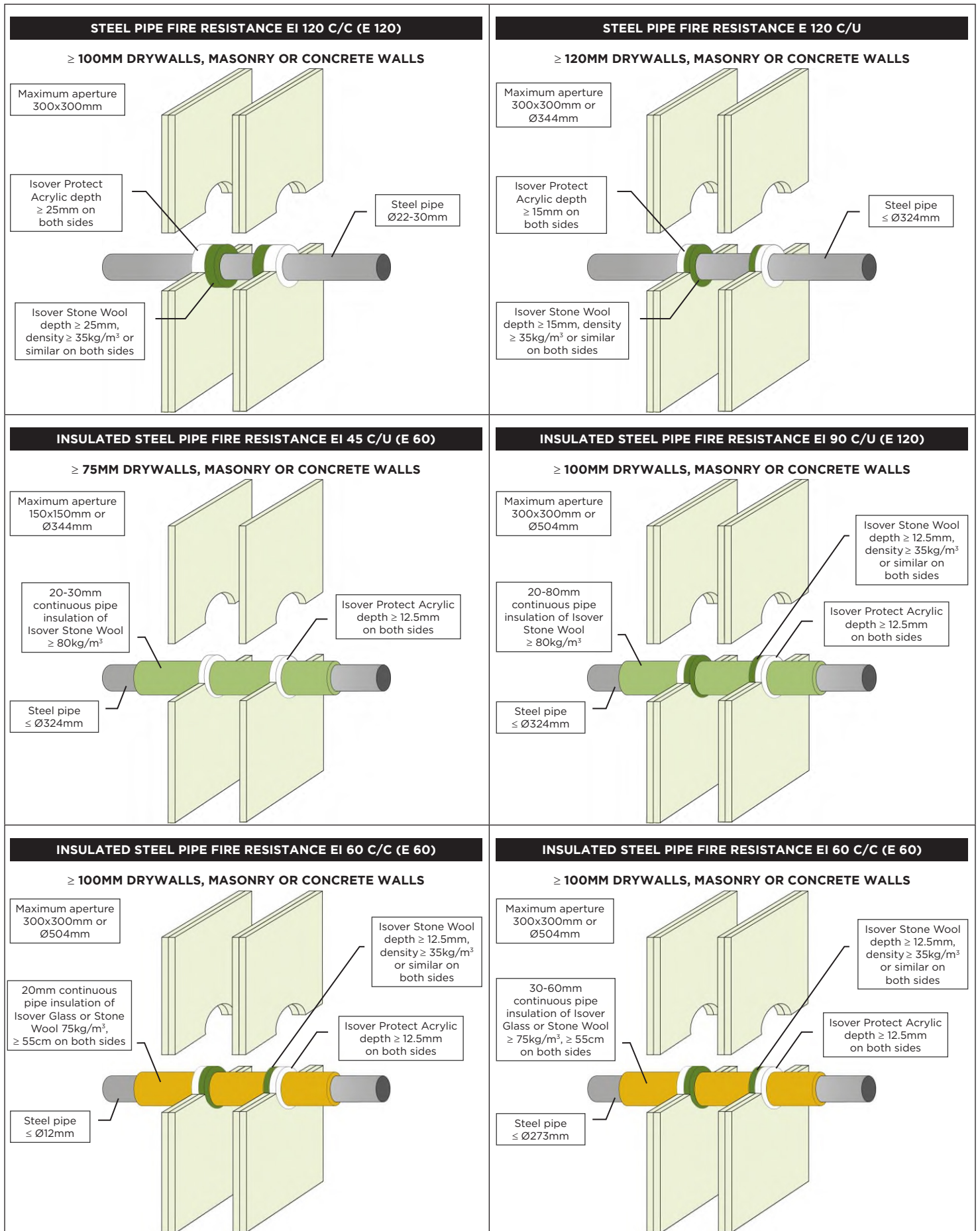


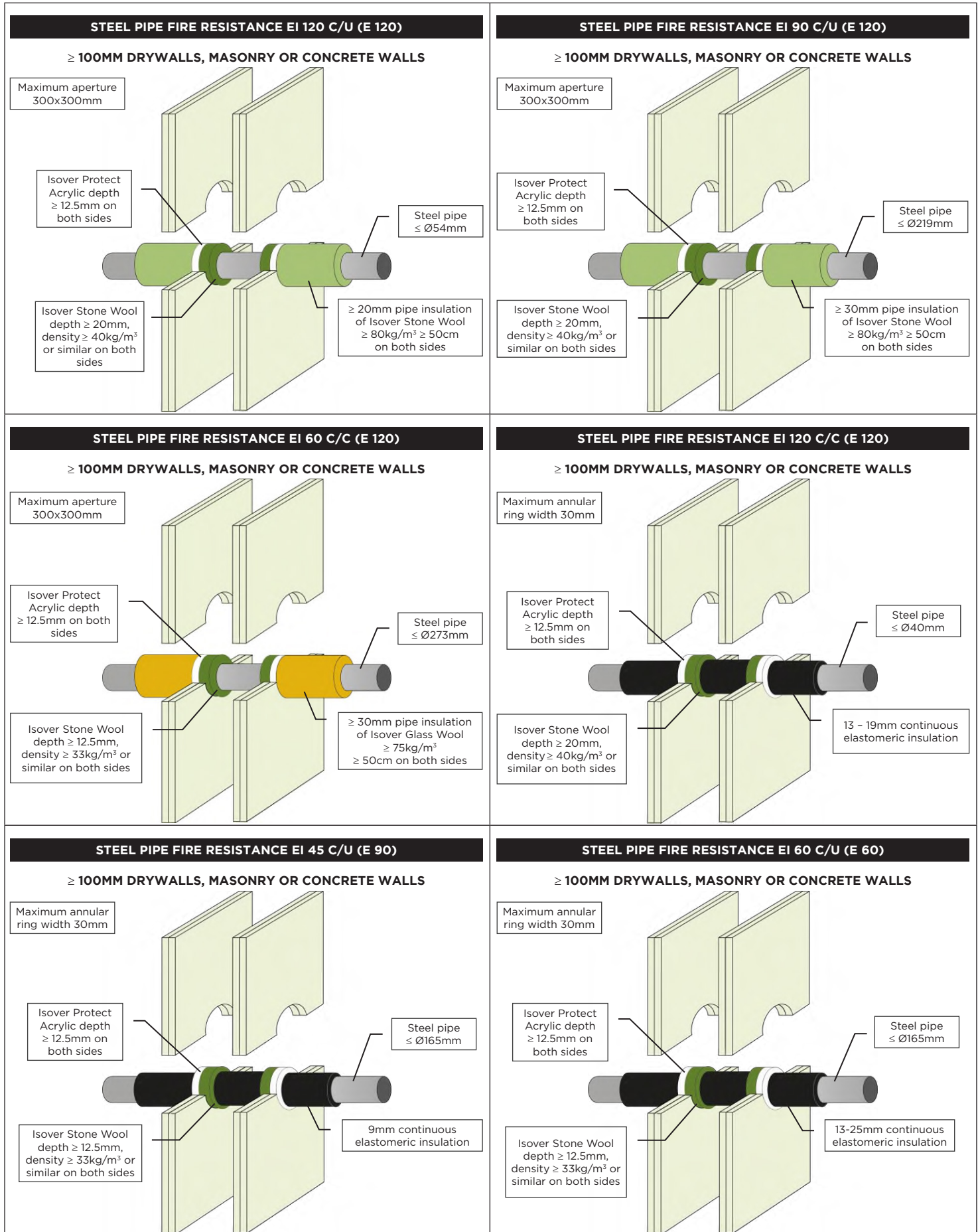


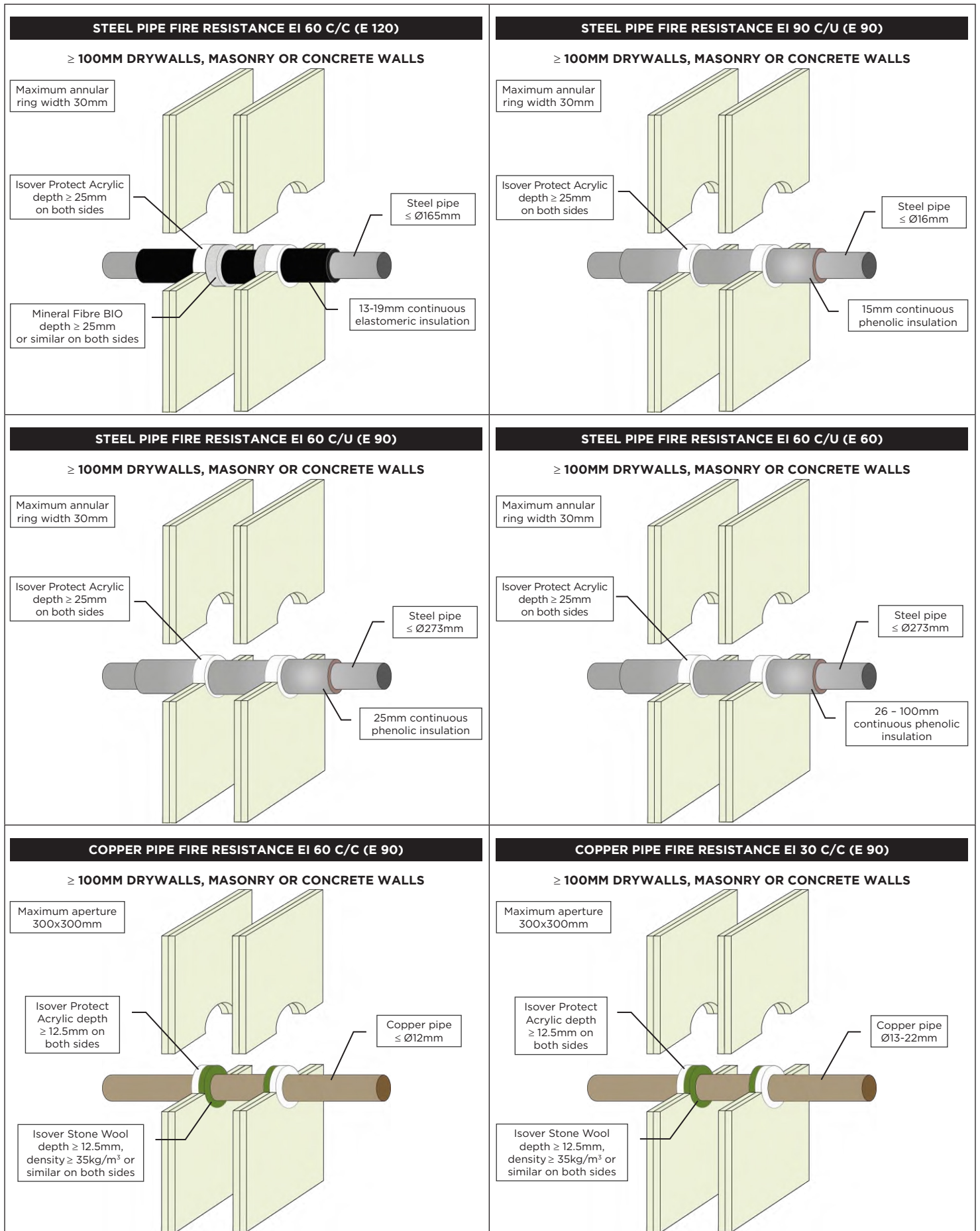


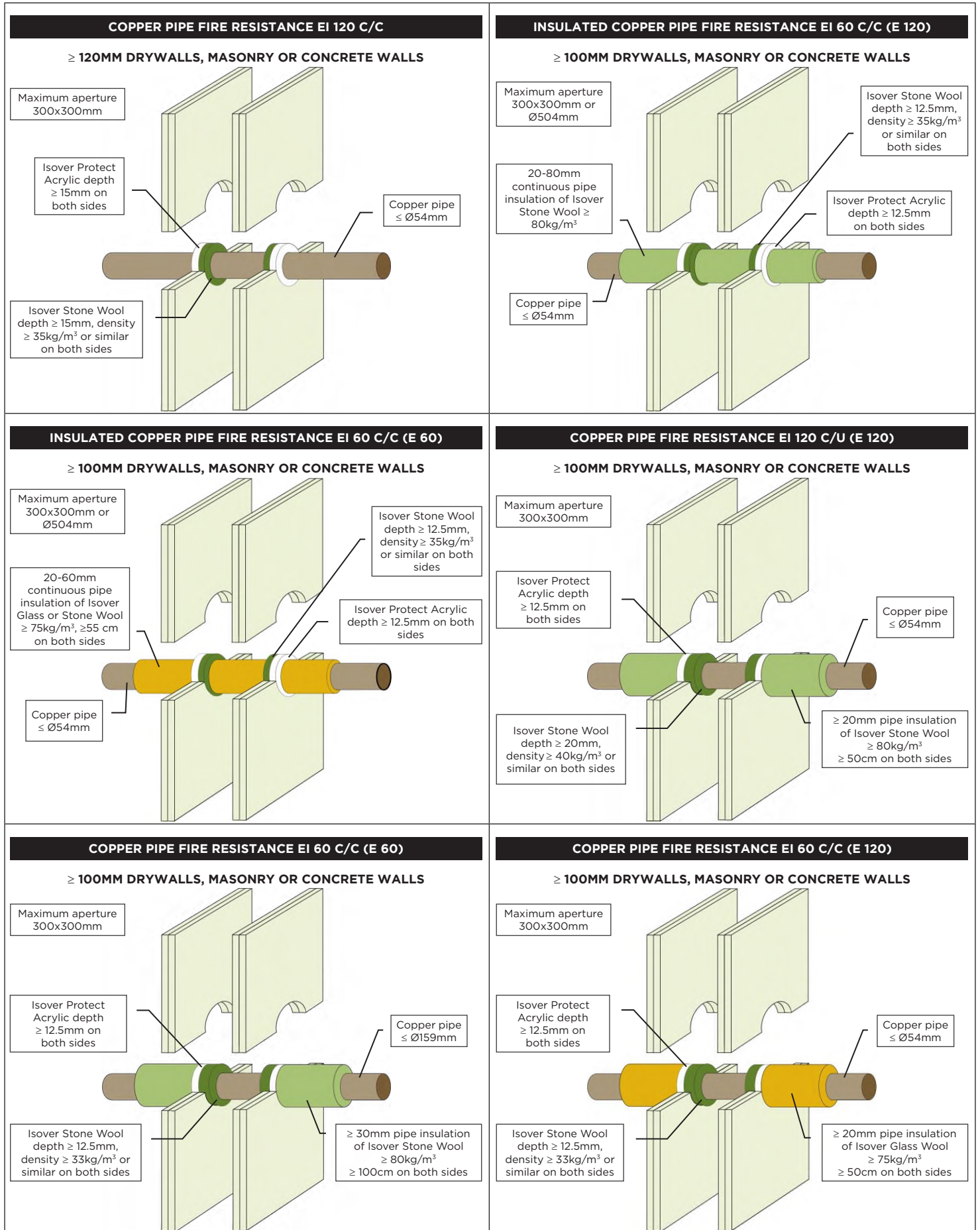
<p><b>HORIZONTAL &amp; VERTICAL SEALS FIRE RESISTANCE EI 60 (E 120)</b></p> <p><b>IN ≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum seal width 30mm</p> <p>Isover Protect Acrylic depth ≥ 12.5mm on both sides</p> <p>Isover Stone Wool depth ≥ 12.5mm, density ≥ 35kg/m<sup>3</sup> or similar on both sides</p> <p>Steel frame classified to EI 60 or higher</p>	<p><b>HORIZONTAL &amp; VERTICAL SEALS FIRE RESISTANCE EI 60 (E 60)</b></p> <p><b>IN ≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum seal width 30mm</p> <p>Isover Protect Acrylic depth ≥ 12.5mm</p> <p>Isover Stone Wool depth ≥ 12.5mm, density ≥ 35kg/m<sup>3</sup> or similar</p> <p>≥ 12mm thick architrave fixed with ≥ 25mm steel pins, nails or screws at nominal 300mm centres</p> <p>Timber frame</p>
<p><b>HORIZONTAL &amp; VERTICAL SEALS FIRE RESISTANCE EI 60 (E 90)</b></p> <p><b>IN ≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum seal width 30mm</p> <p>Isover Protect Acrylic depth ≥ 12.5mm on both sides</p> <p>Isover Stone Wool depth ≥ 12.5mm, density ≥ 35kg/m<sup>3</sup> or similar on both sides</p> <p>Timber frame</p>	<p><b>CABLES FIRE RESISTANCE EI 45 (E 60)</b></p> <p><b>≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum aperture 150x150mm</p> <p>Cable ≤ Ø21mm</p> <p>Isover Protect Acrylic depth ≥ 12.5mm on both sides</p>
<p><b>CABLES FIRE RESISTANCE EI 30 (E 45)</b></p> <p><b>≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum aperture 150x150mm</p> <p>Cables ≤ Ø21mm in a bundle ≤ Ø100mm</p> <p>Isover Protect Acrylic depth ≥ 12.5mm on both sides</p>	<p><b>CABLES FIRE RESISTANCE EI 90 (E 120)</b></p> <p><b>≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS</b></p> <p>Maximum aperture 300x300mm</p> <p>Cables ≤ Ø21mm single or in a bundle ≤ Ø50mm</p> <p>Isover Stone Wool depth ≥ 12.5mm, density ≥ 33kg/m<sup>3</sup> or similar on both sides</p> <p>Isover Protect Acrylic depth ≥ 12.5mm on both sides</p>

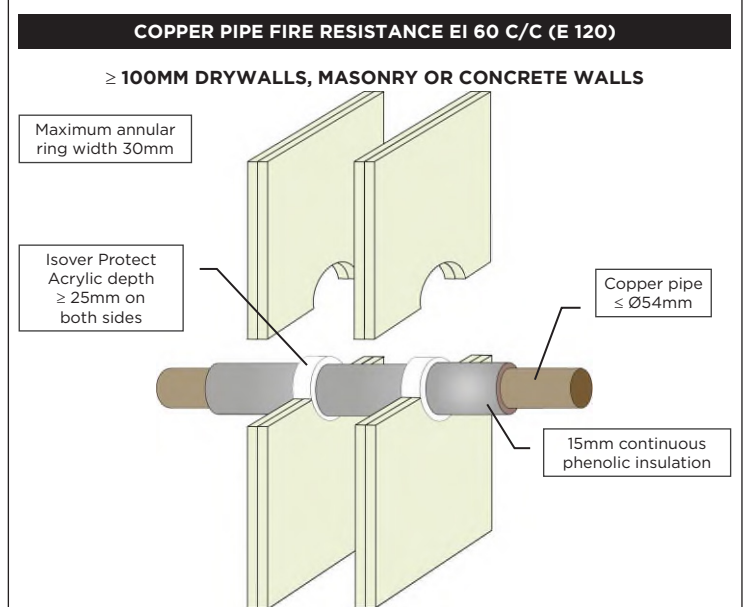
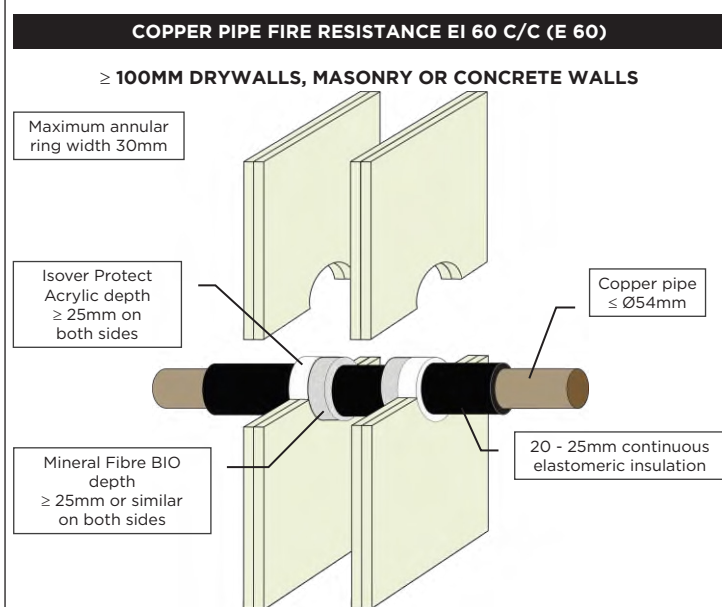
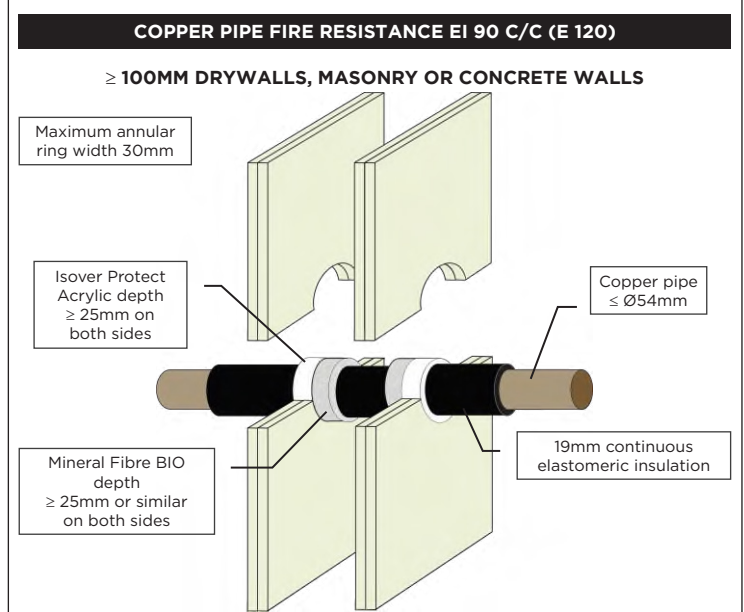
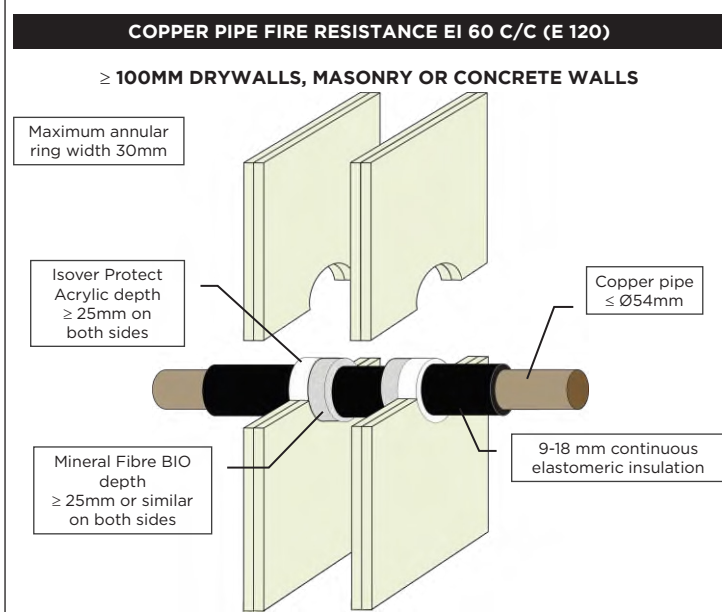
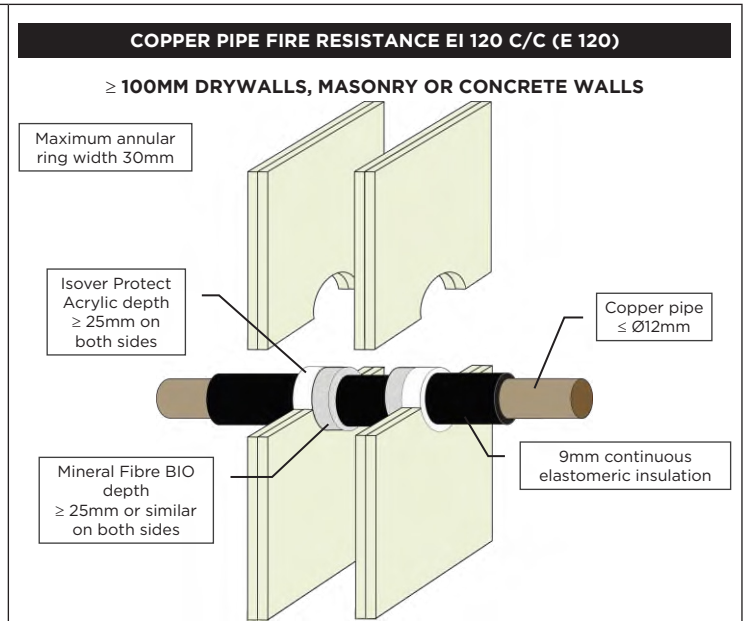
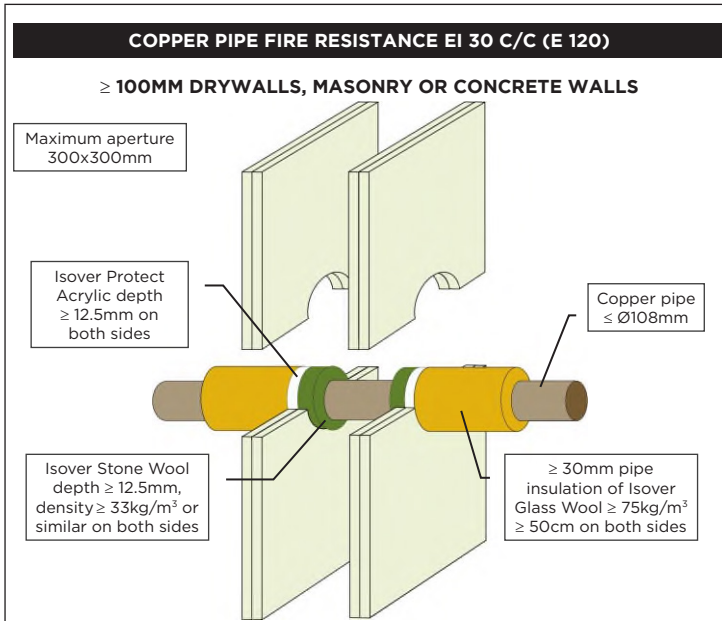


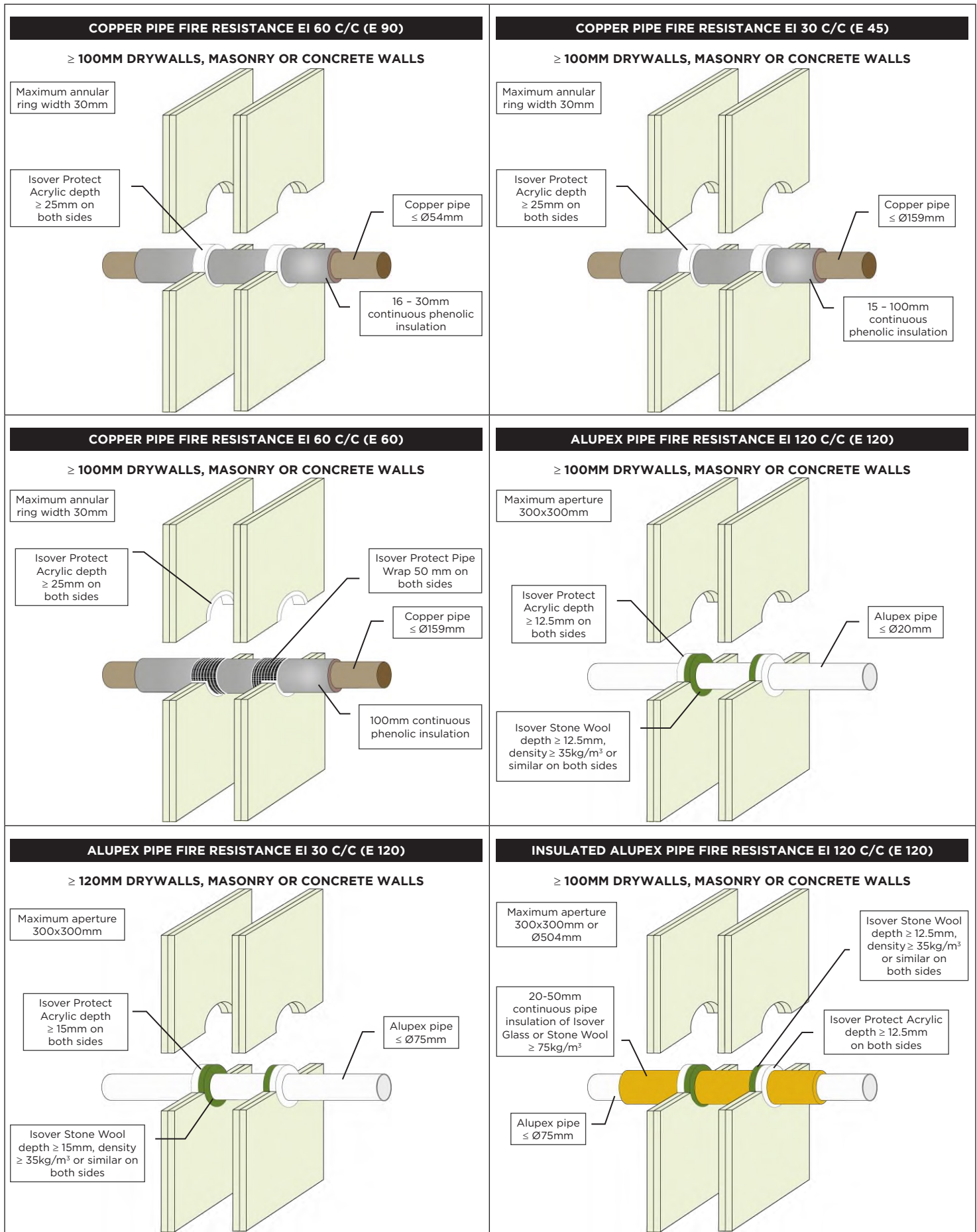


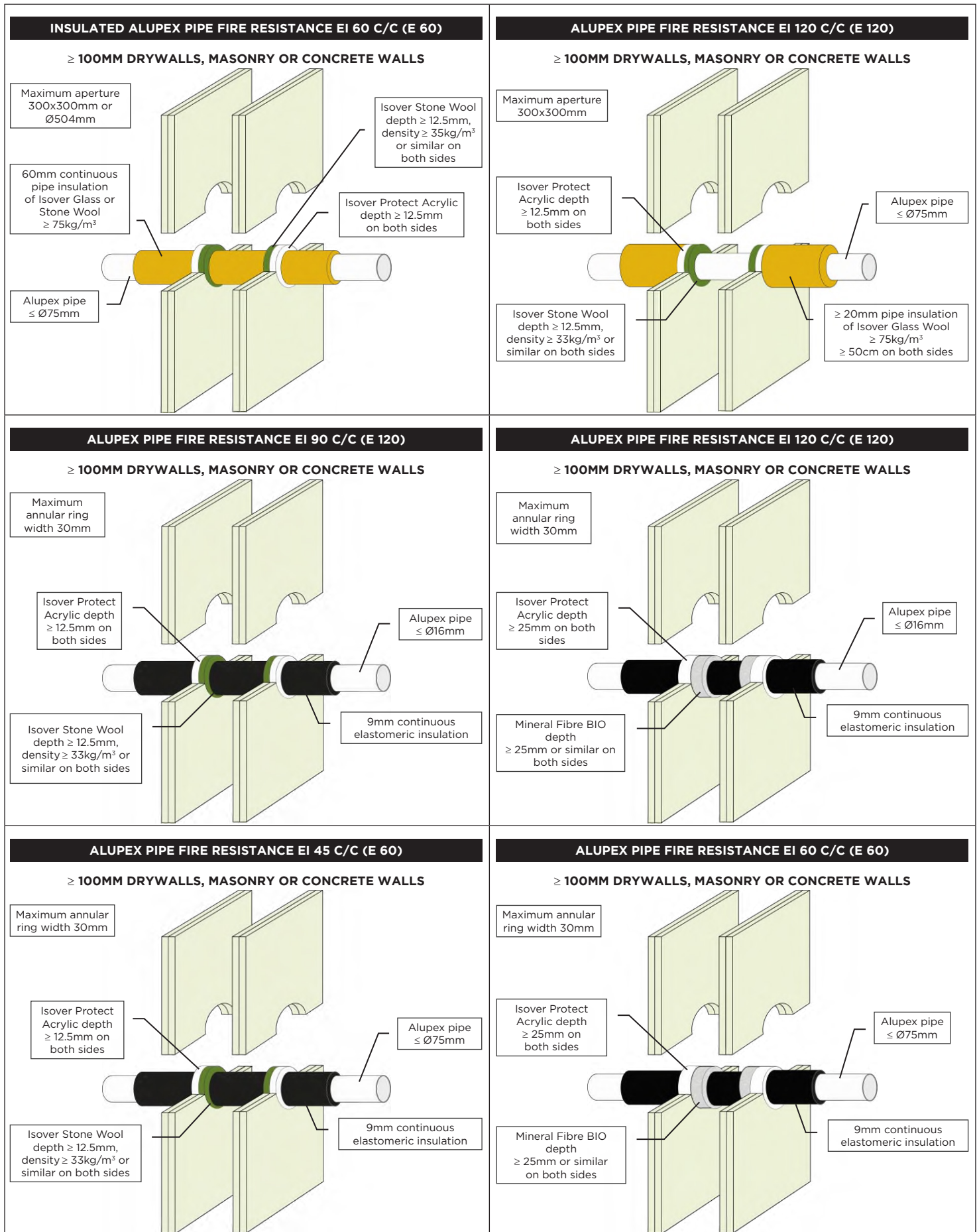


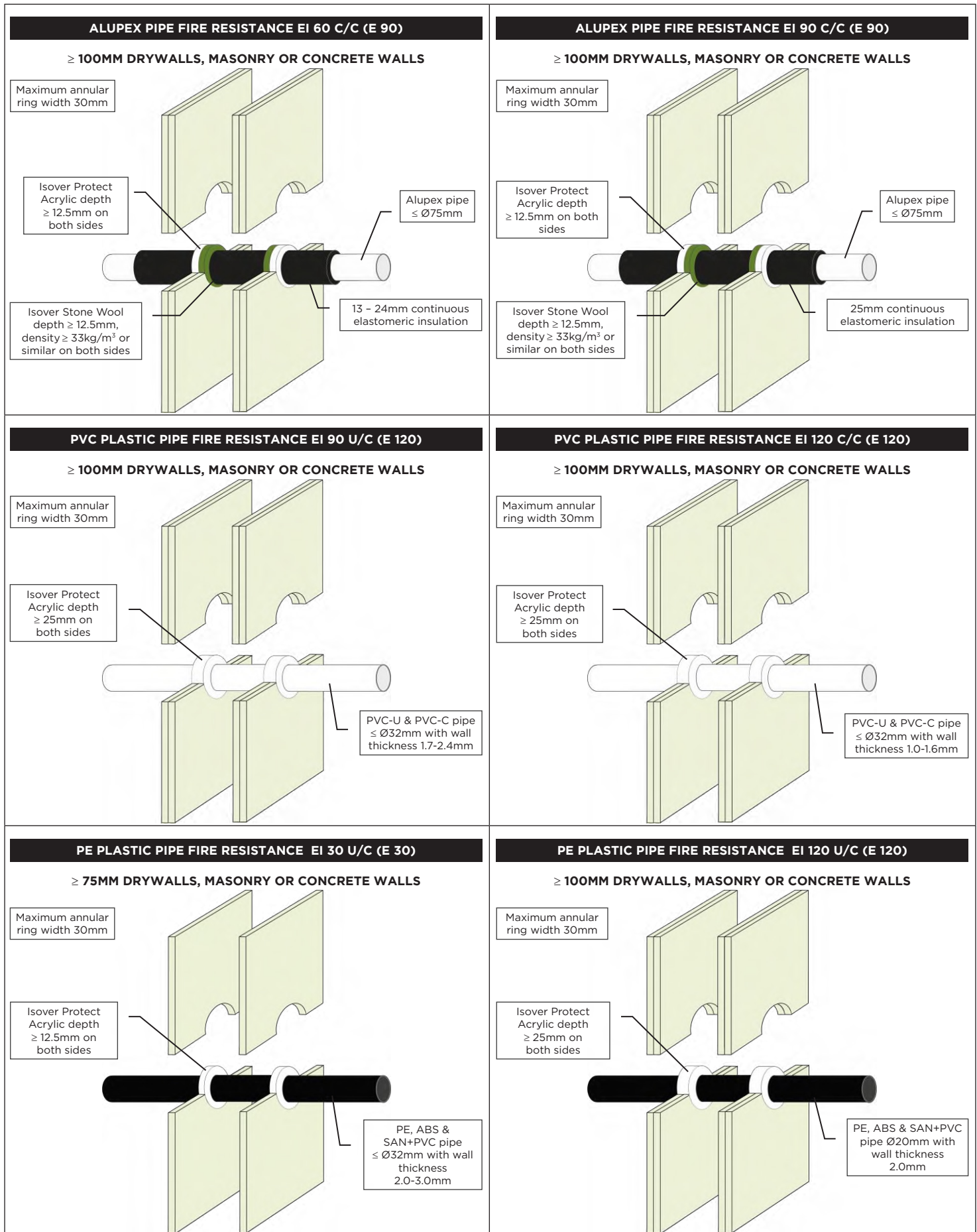


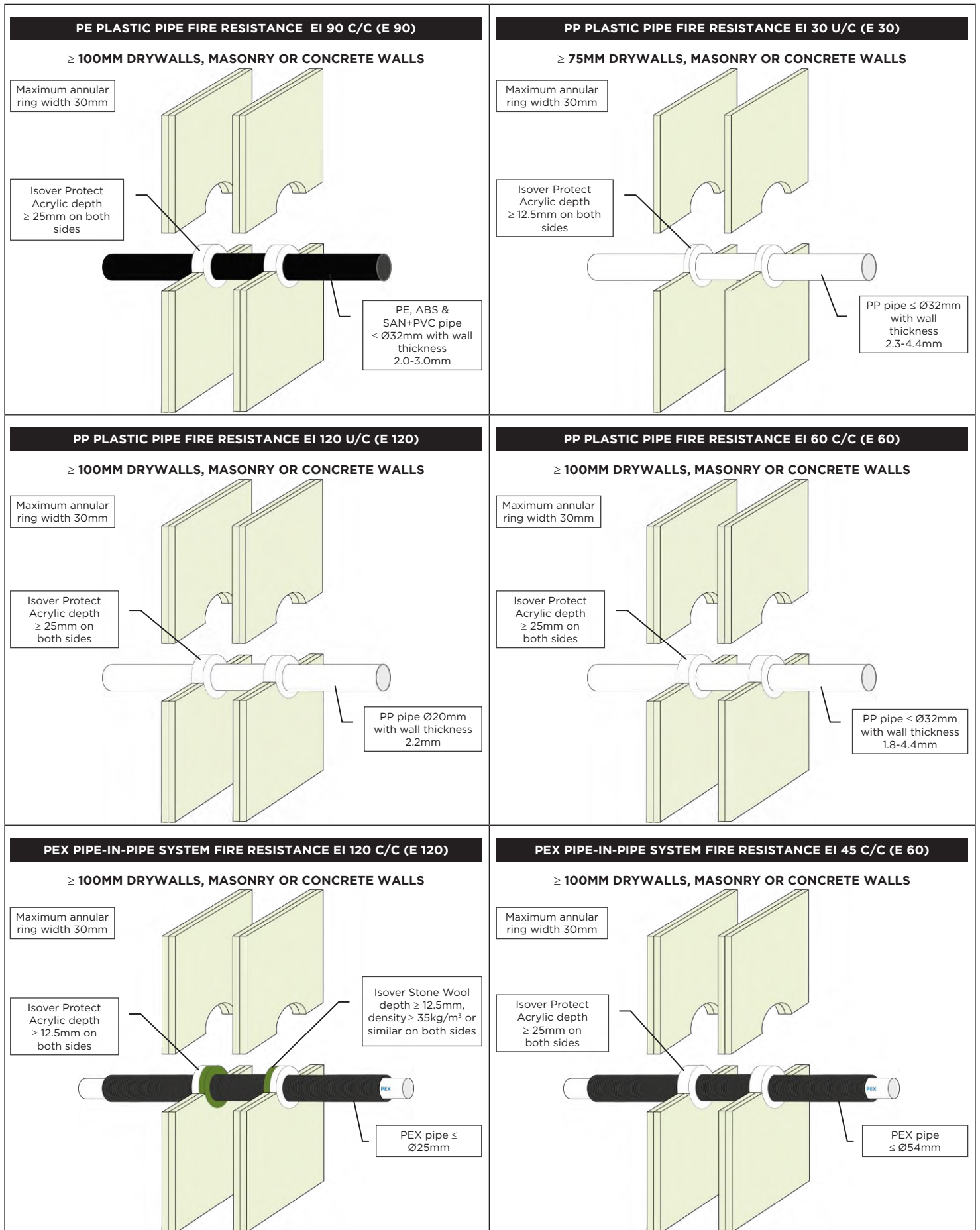


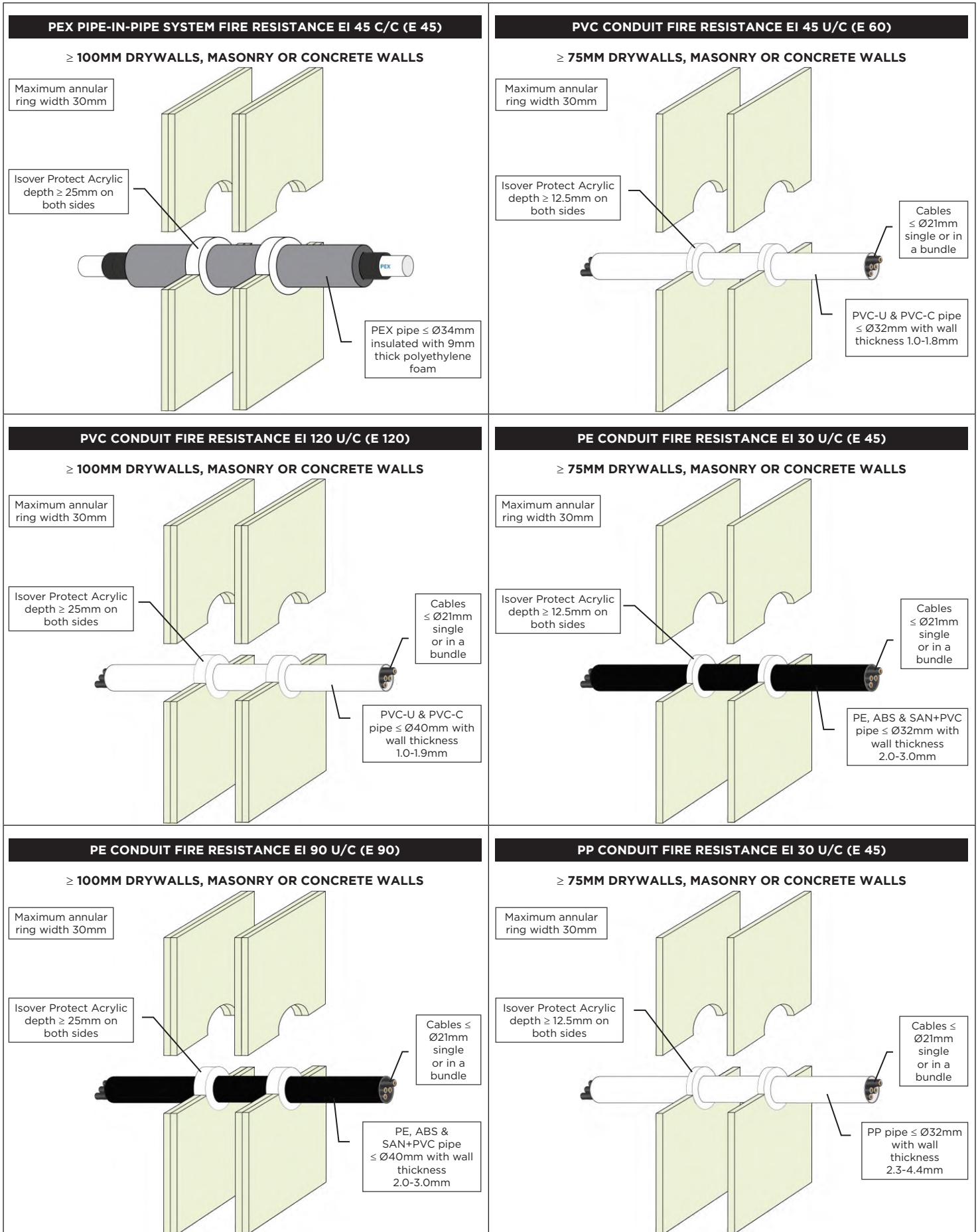


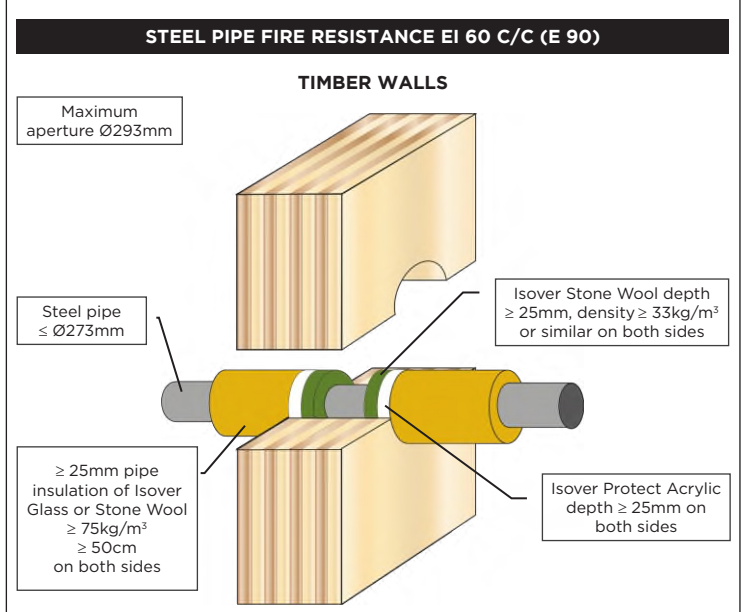
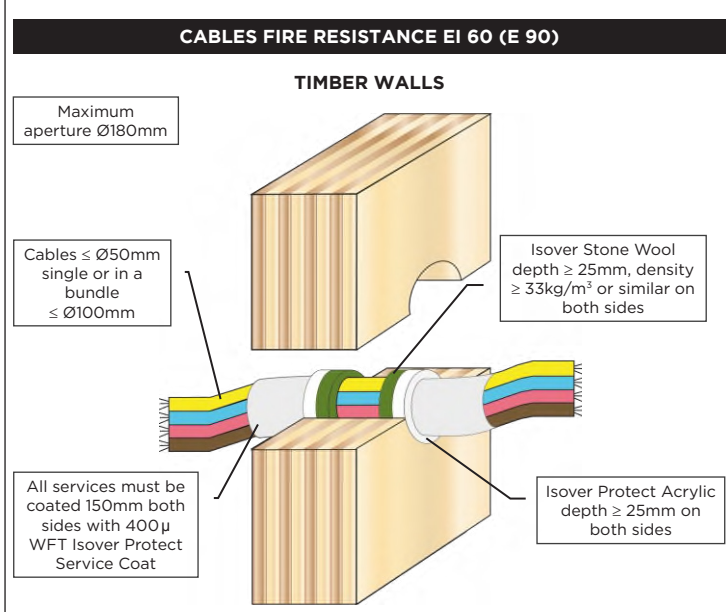
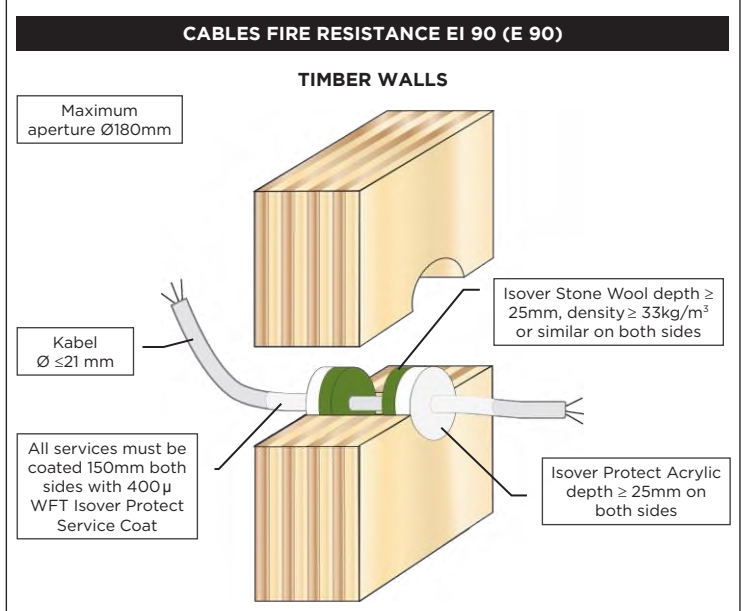
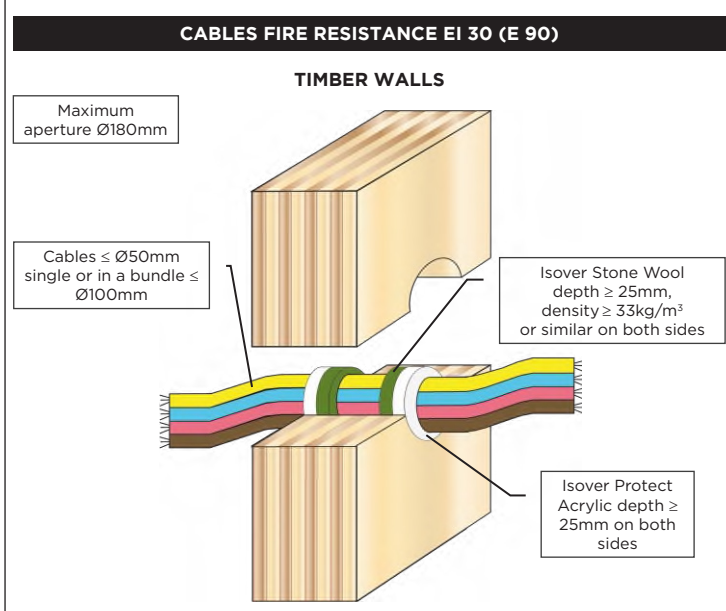
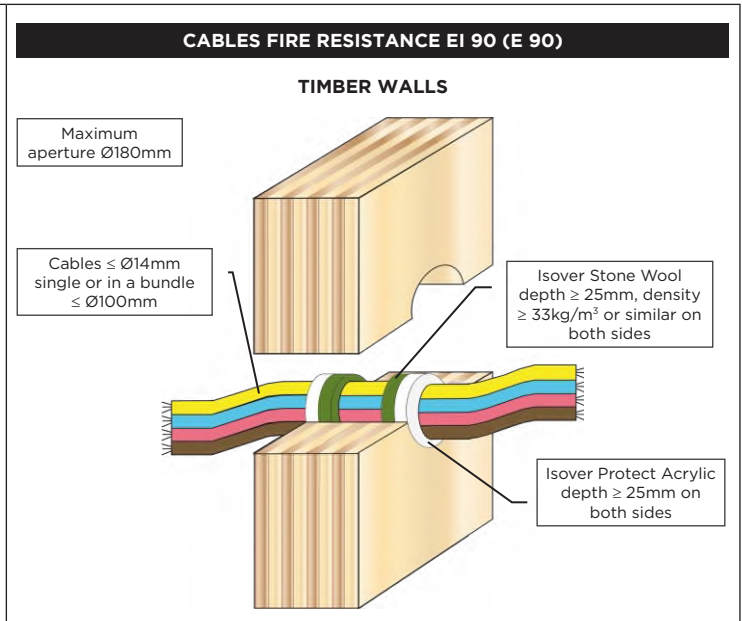
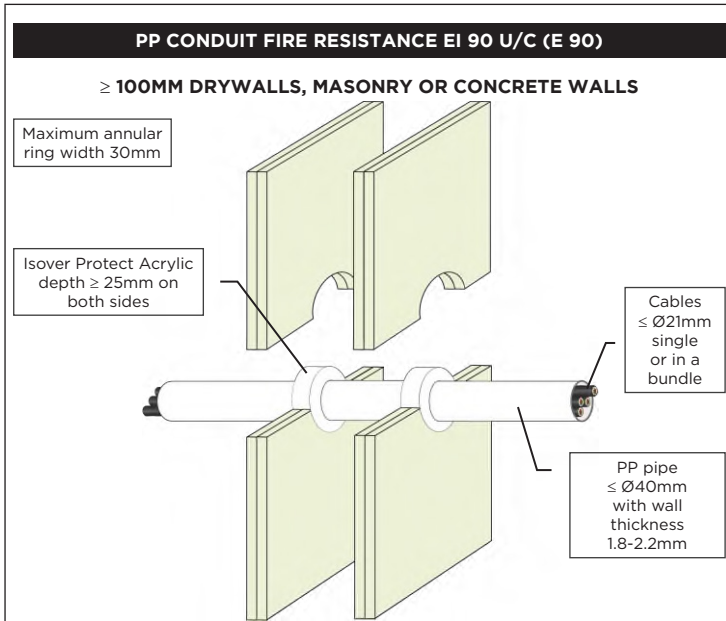


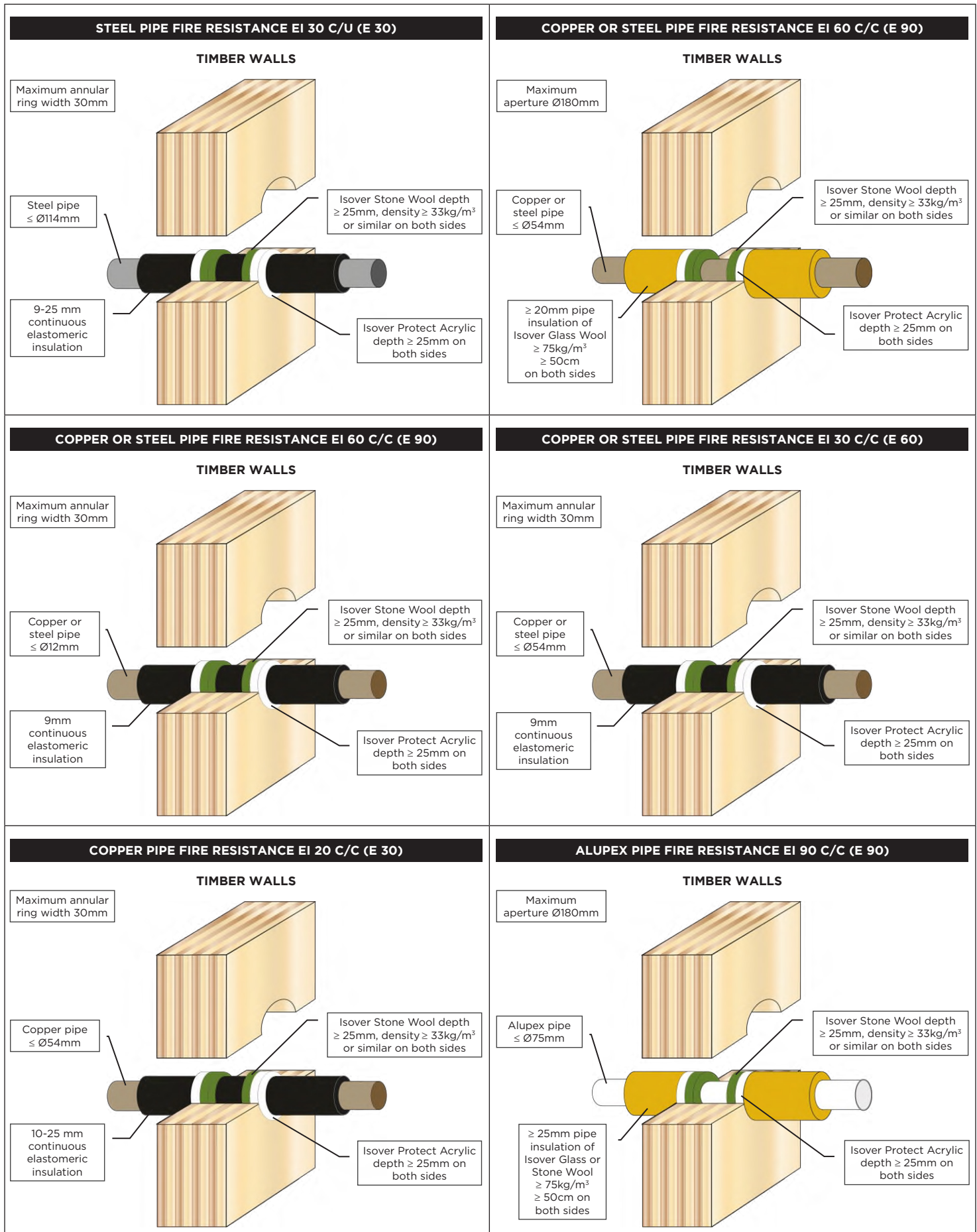


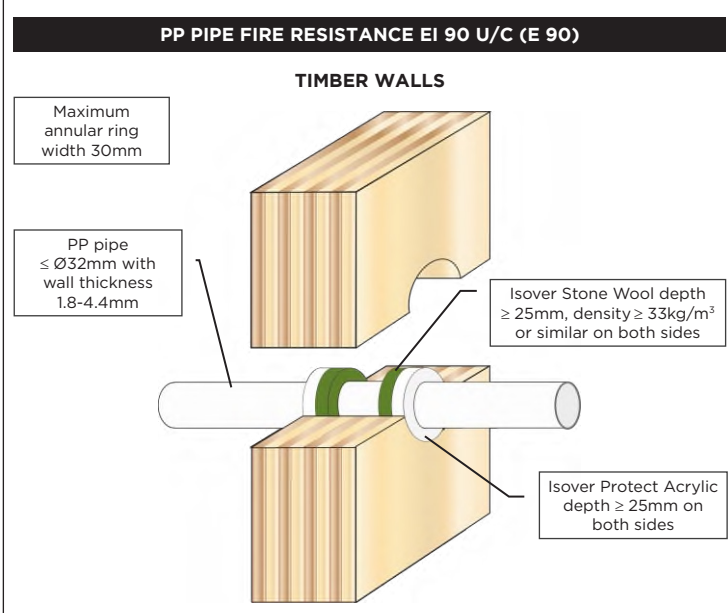
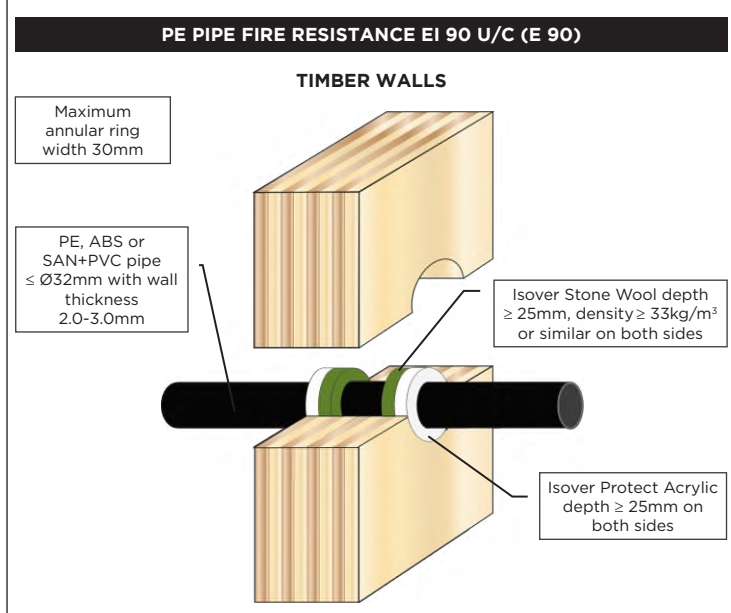
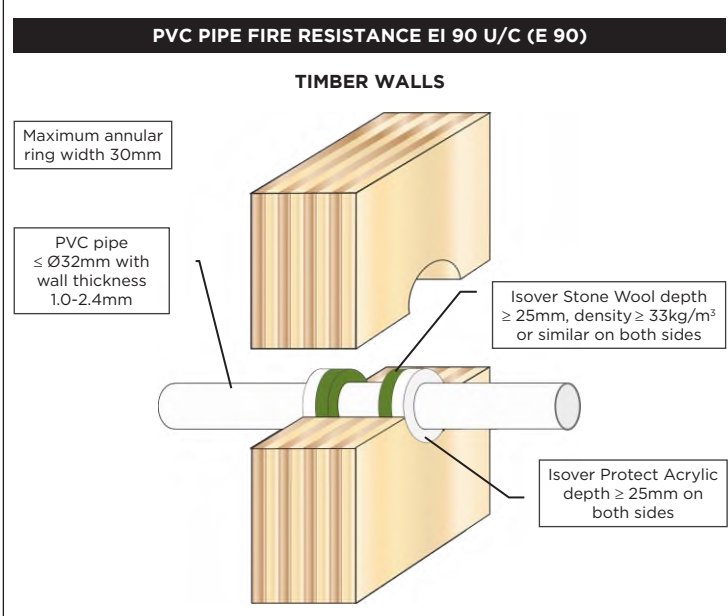
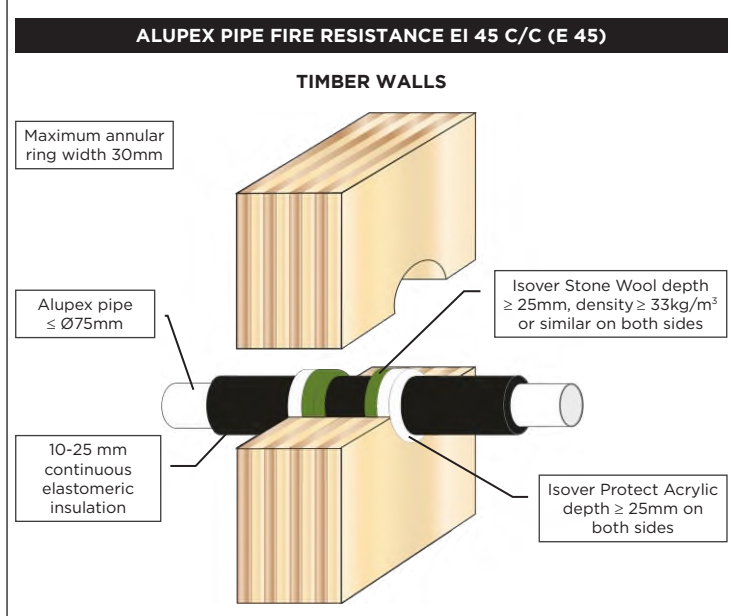
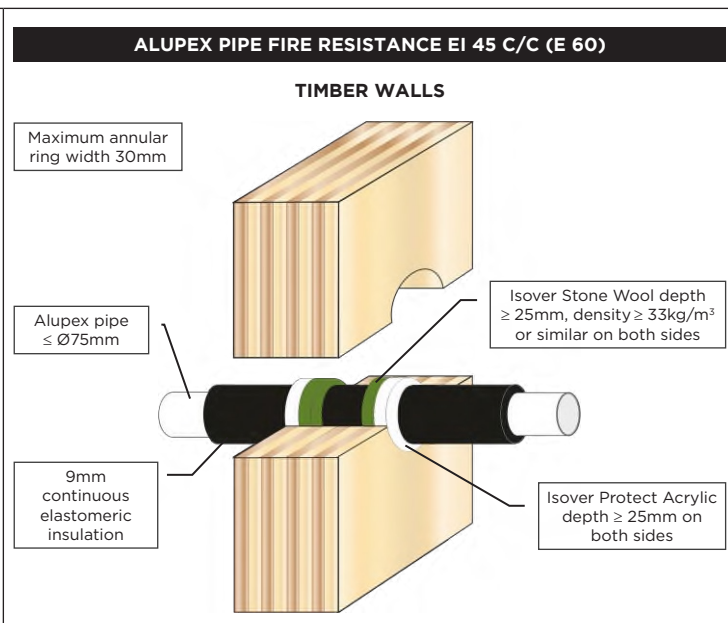
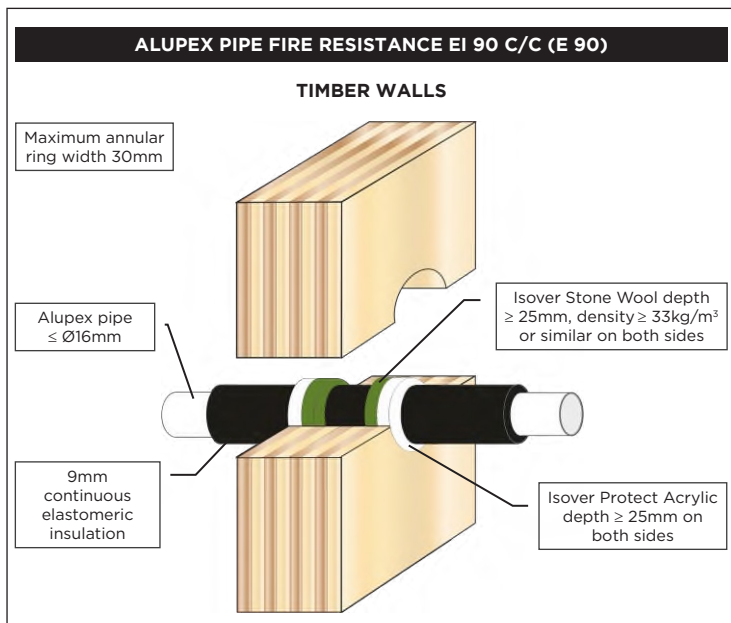


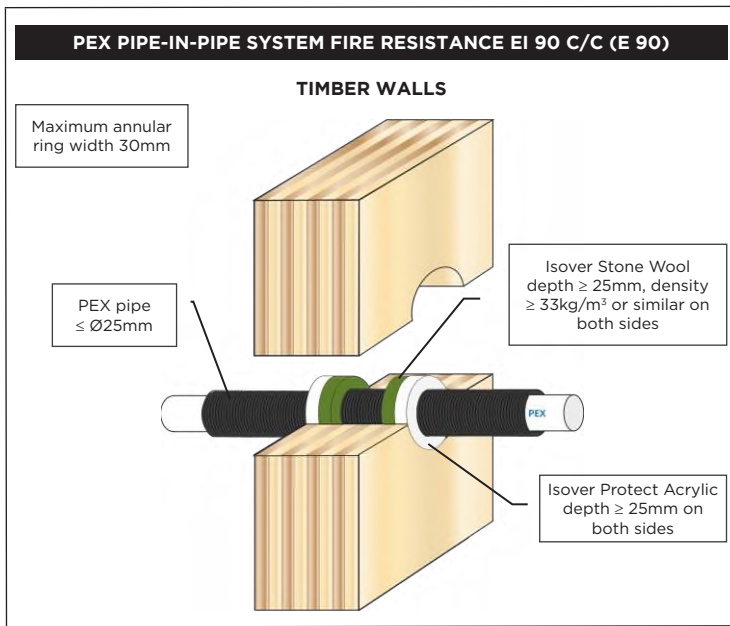












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