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For linear seals without services, please refer to the Technical Data Sheet on page 2.

### PRODUCT DESCRIPTION

iPASSIVE FR Acrylic is a high specification formulation designed to prevent the spread of fire, smoke and gases through openings in fire rated walls and floors, specifically linear movement joints and openings for building service penetrations. FR Acrylic expands when it is subjected to fire and closes openings around penetrations when any combustible or low temperature melting materials have burnt away. FR Acrylic should be applied over suitable backing materials to ensure correct width to depth ratio and to reduce shrinkage of the joint during hardening.

### GENERAL GUIDE

**Minimum separations and limitations:** Services can be sealed as specified in the detailed drawings. Minimum separation between services and also between services and the edge of the seal within each aperture should 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 joint dimensions or apertures other than described in the detailed drawings, iPASSIVE FR Board or iPASSIVE FR Mortar should be used. In areas with a high degree of humidity and/or in joints with excessive movement, iPASSIVE FR IPT should be used.

**Supporting constructions:** Flexible walls must have a minimum thickness of 75 mm and comprise steel studs or timber studs\*) lined on both faces with minimum 1 layer of 13 mm thick boards. Rigid walls must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>. Rigid floors must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m<sup>3</sup>. The supporting construction must be otherwise tested or assessed to achieve the required FRL.



### INSTALLATION INSTRUCTIONS

1. Before installing iPASSIVE FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where iPASSIVE FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made. For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. As iPASSIVE FR 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 iPASSIVE FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
5. When installing iPASSIVE FR 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. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
7. Fill the gap or joint with iPASSIVE FR Acrylic to the required depth. Refer to the drawings on following pages 2 to 19 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.
8. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
9. iPASSIVE FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints

\*Timber studs: no part of the penetration seal may be closer than 100 mm to a stud, and minimum 100 mm of insulation must be provided within the cavity between the penetration seal and the stud.

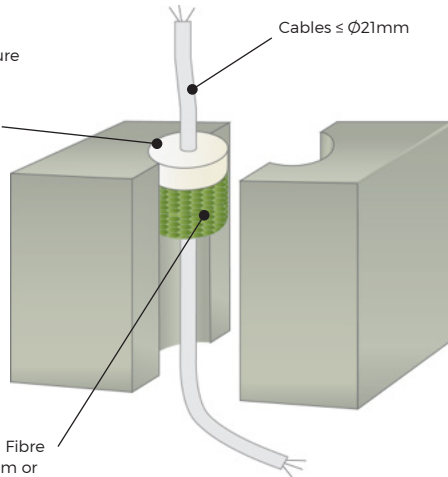
## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

### CABLES FIRE RESISTANCE -/120/60

Rigid Floors

Maximum aperture  
100x1000mm

FR Acrylic depth  
≥ 25mm top or  
soffit

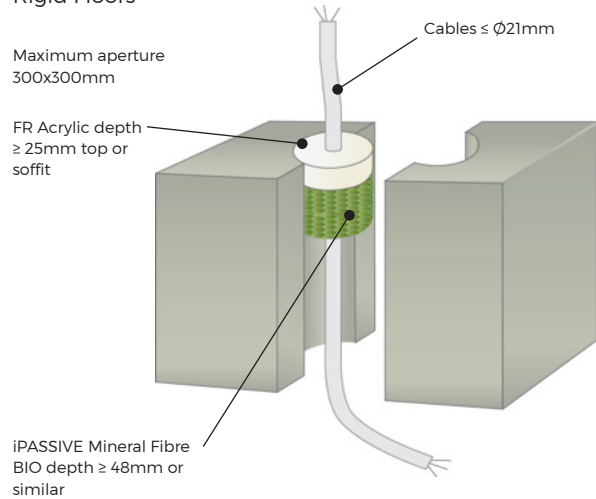


### CABLES FIRE RESISTANCE -/120/90

Rigid Floors

Maximum aperture  
300x300mm

FR Acrylic depth  
≥ 25mm top or  
soffit

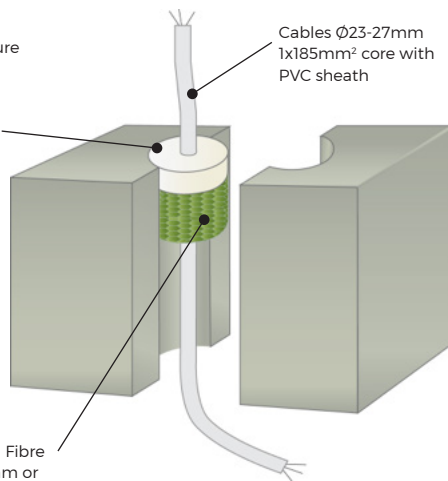


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Rigid Floors

Maximum aperture  
300x300mm

FR Acrylic depth  
≥ 25mm top or  
soffit

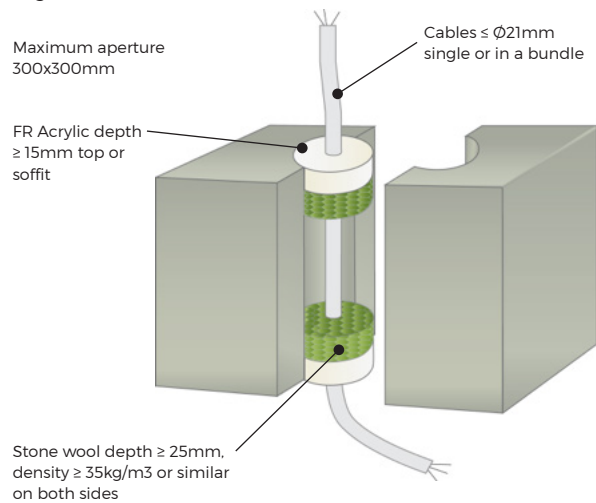


### CABLES FIRE RESISTANCE -/120/120

Rigid Floors

Maximum aperture  
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FR Acrylic depth  
≥ 15mm top or  
soffit

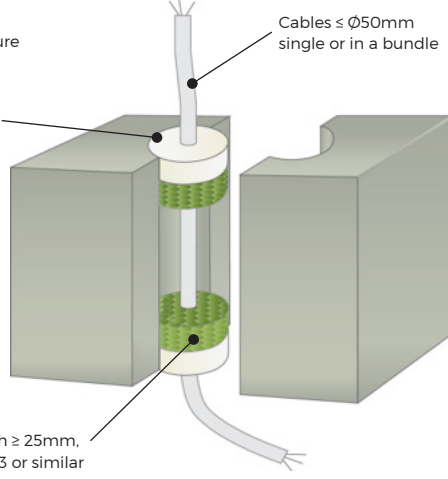


### CABLES FIRE RESISTANCE -/120/90

Rigid Floors.

Maximum aperture  
300x300mm

FR Acrylic depth  
≥ 15mm top or  
soffit

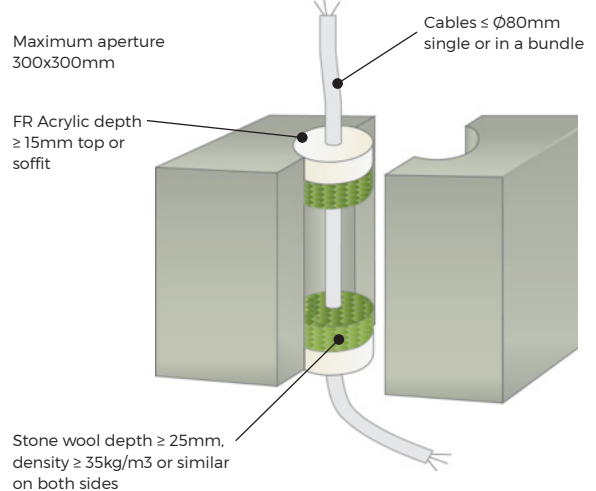


### CABLES FIRE RESISTANCE -/120/60

Rigid Floors

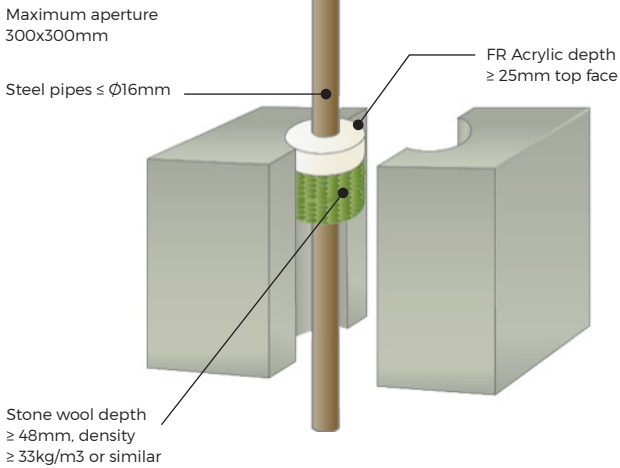
Maximum aperture  
300x300mm

FR Acrylic depth  
≥ 15mm top or  
soffit

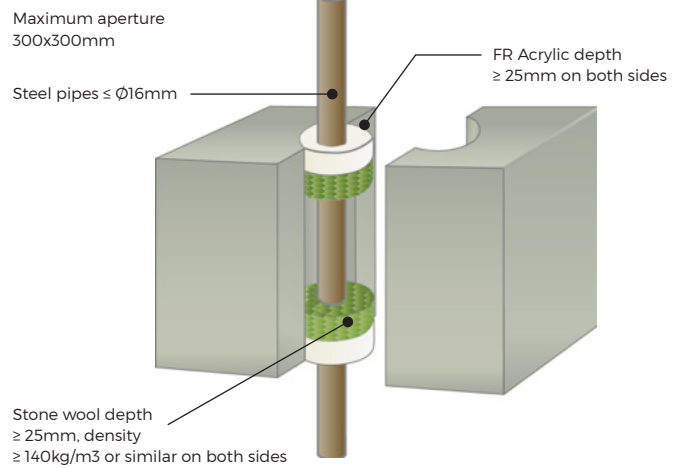


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

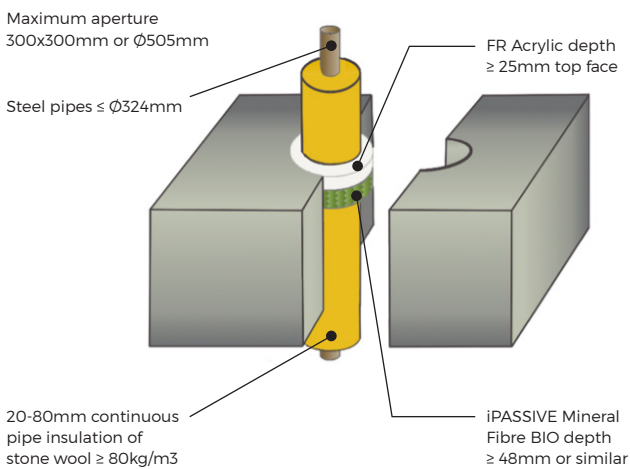
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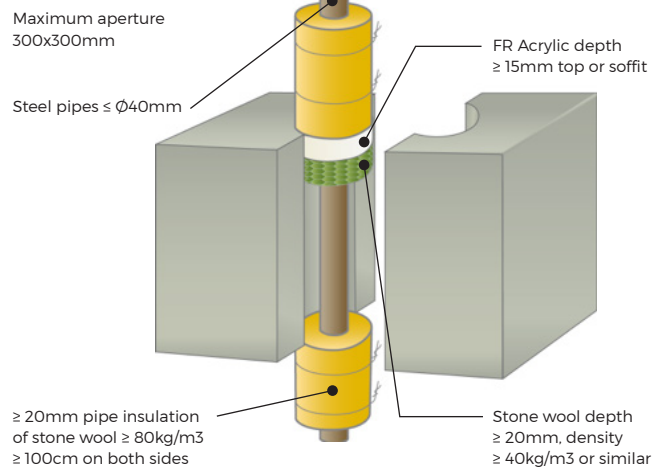
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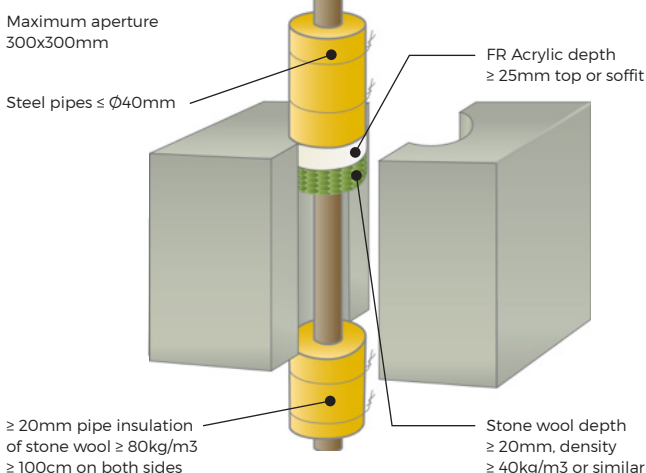
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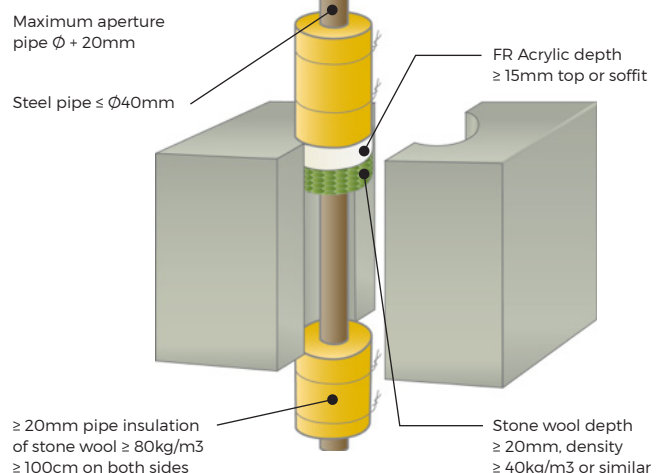
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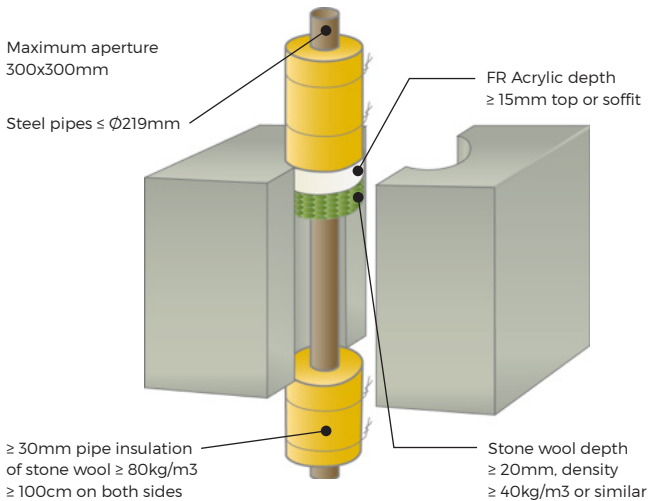


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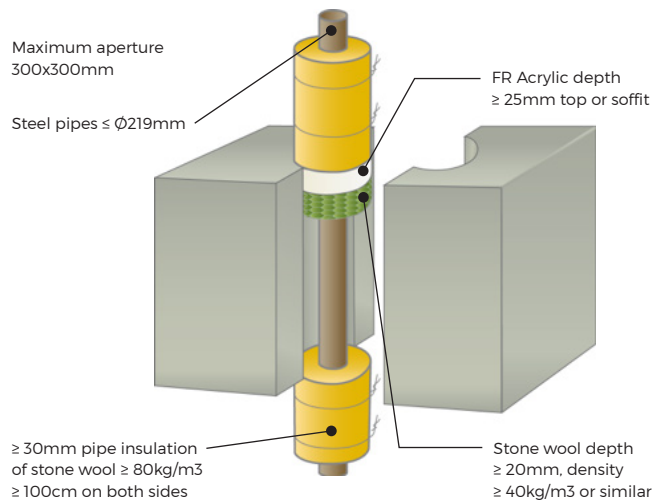


## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

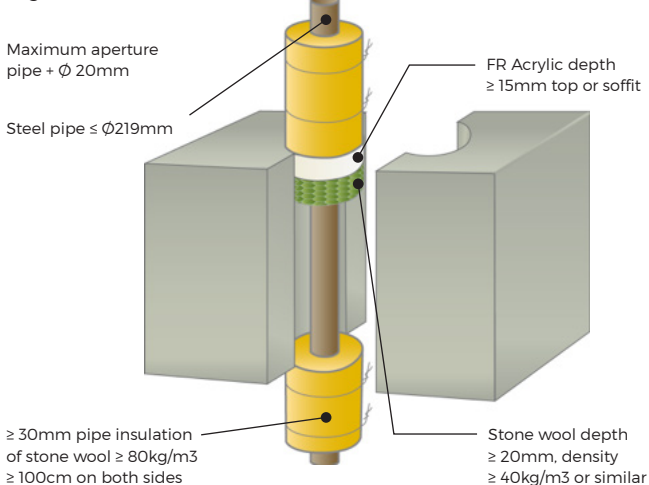
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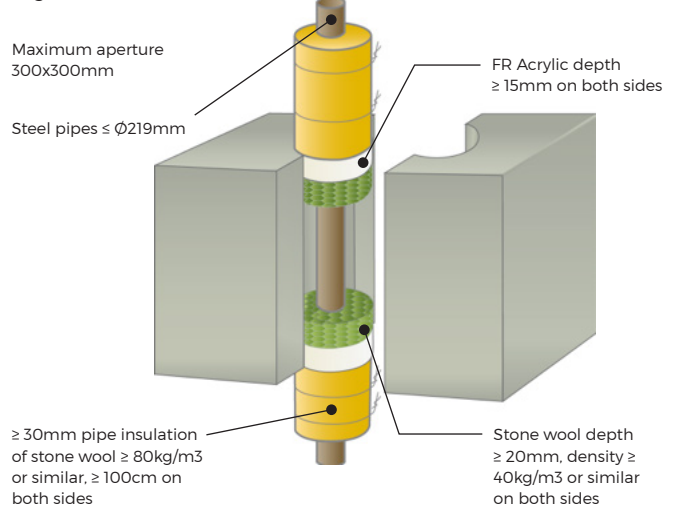
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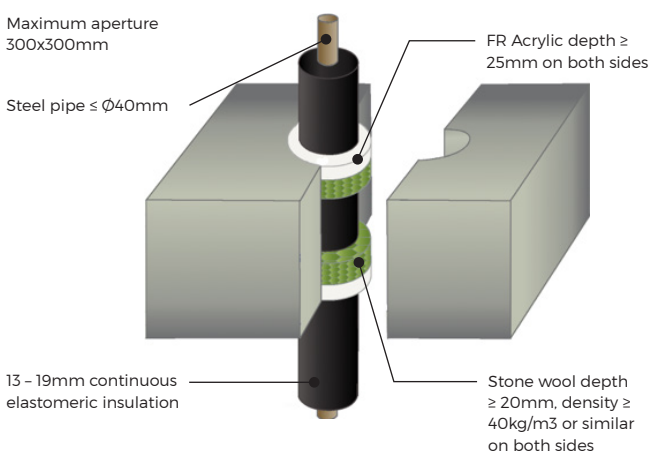
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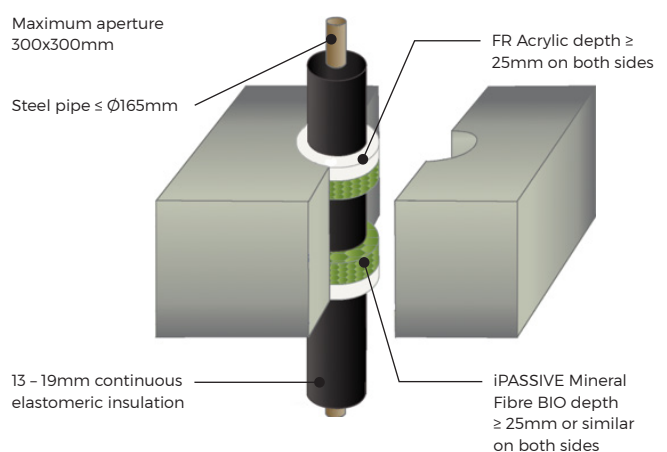
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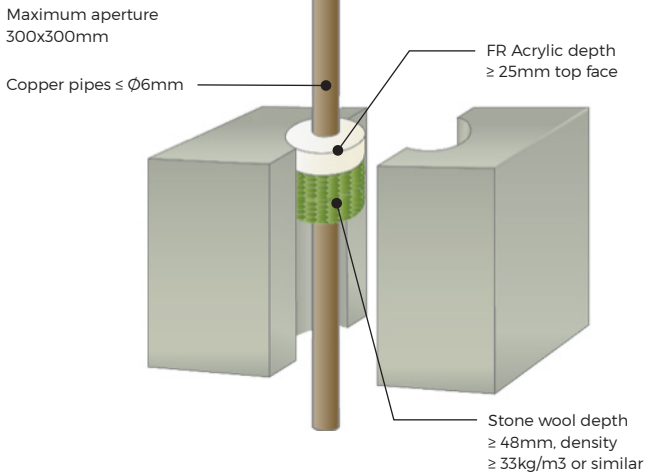


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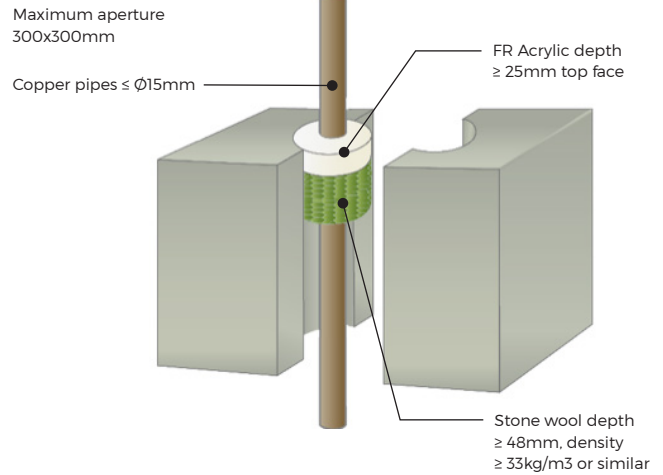


## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

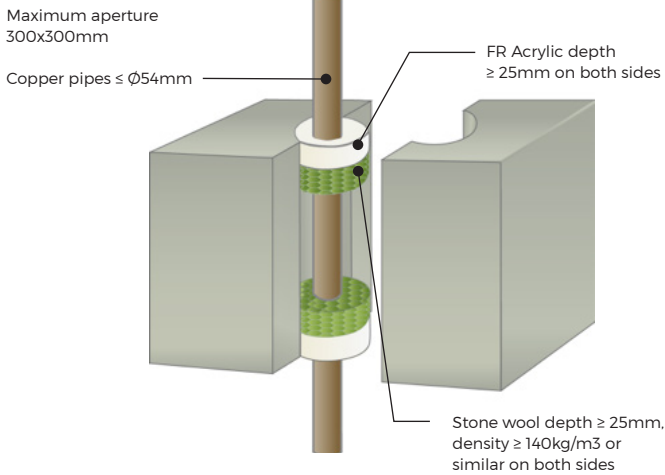
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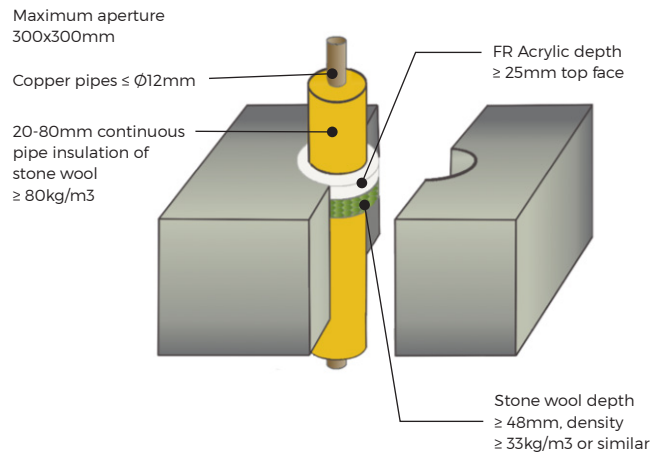
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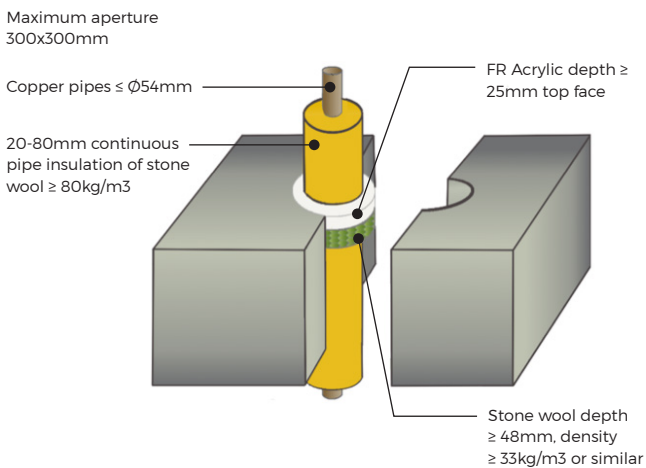
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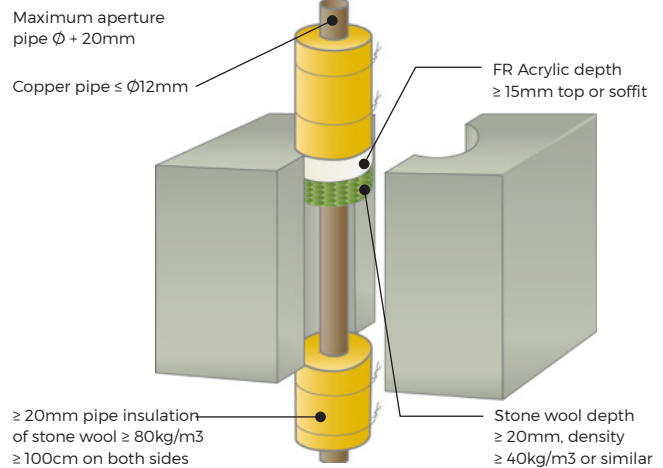
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### INSULATED COPPER PIPES FIRE RESISTANCE -/240/240 C/C Rigid Floors



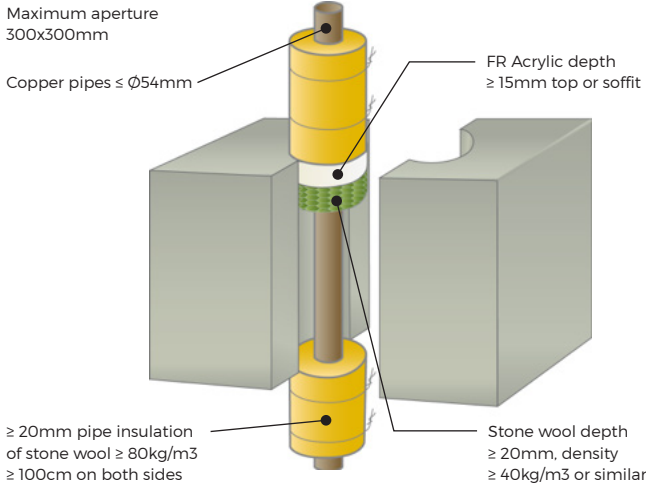
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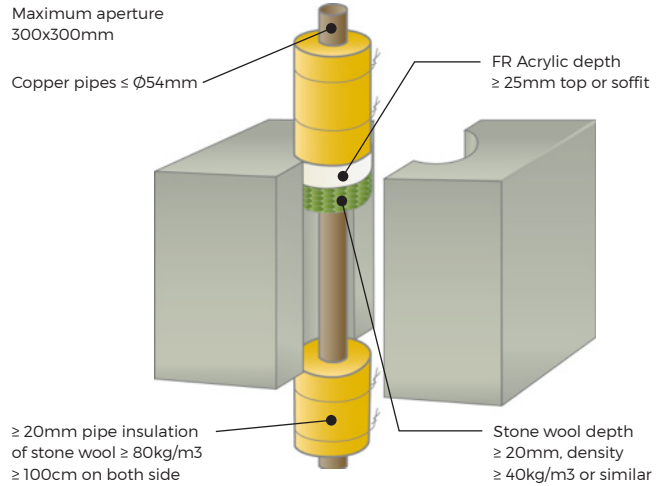


## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

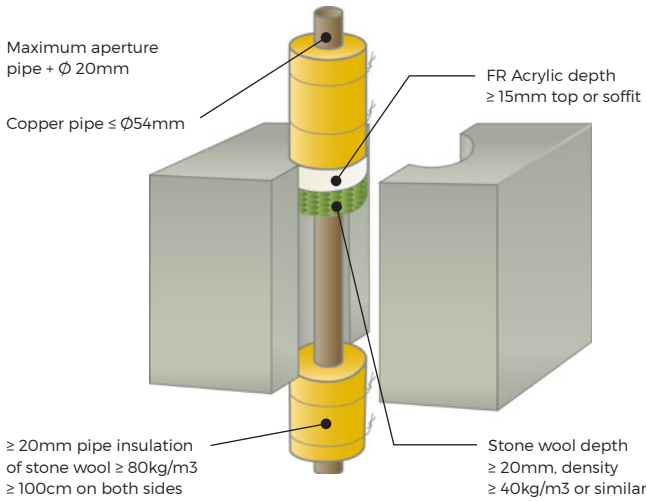
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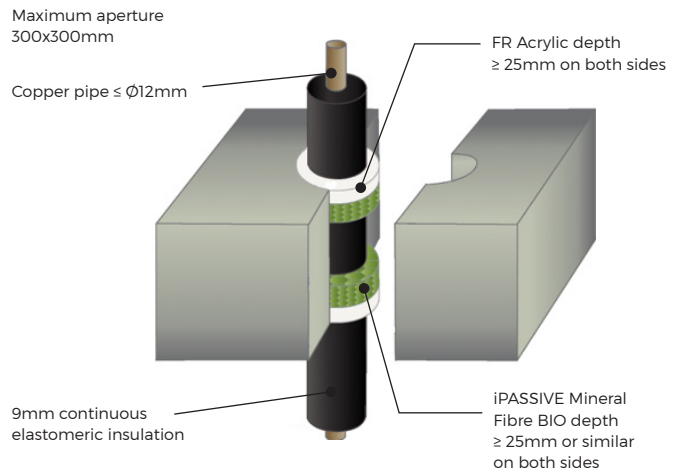
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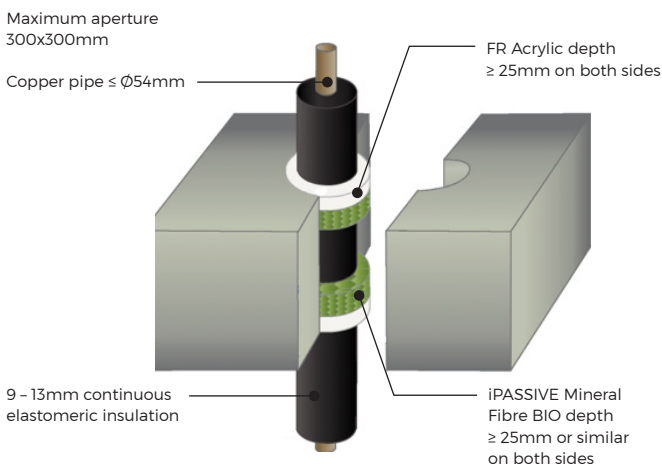
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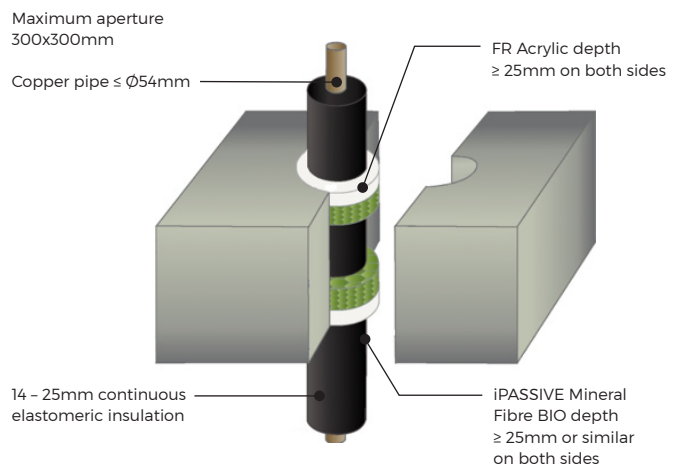
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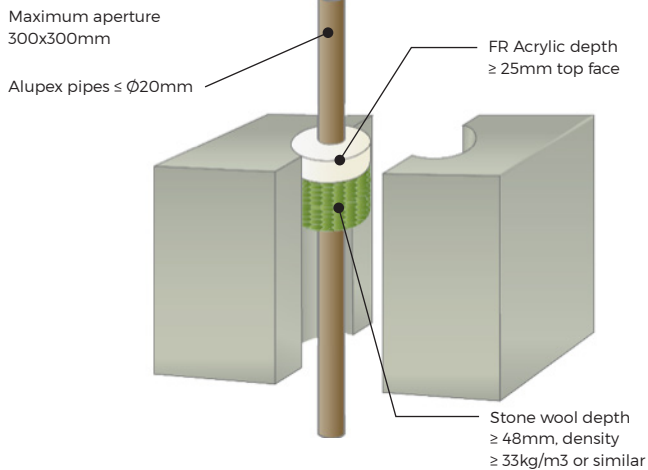


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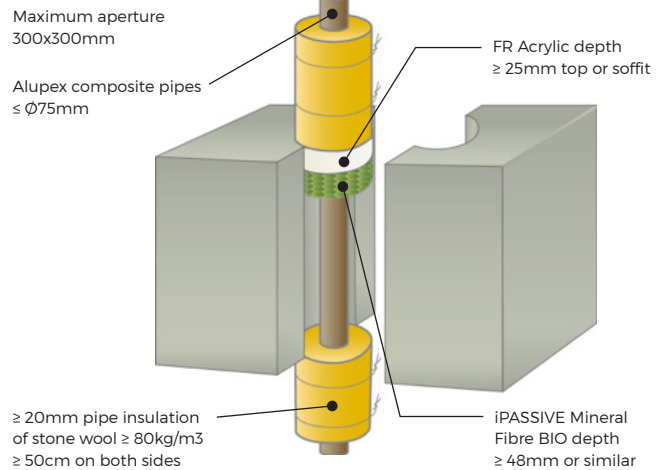


## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

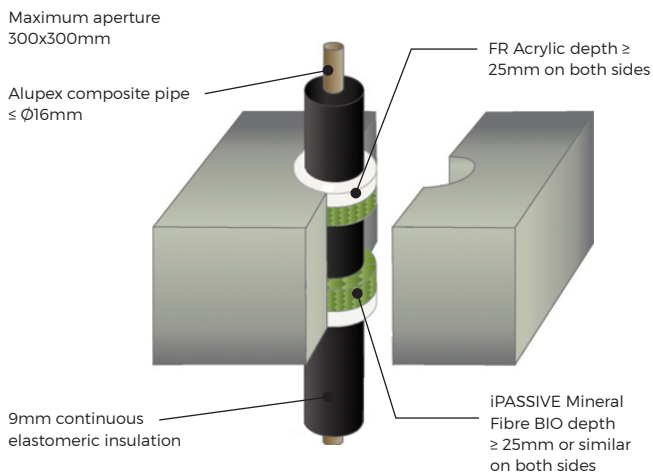
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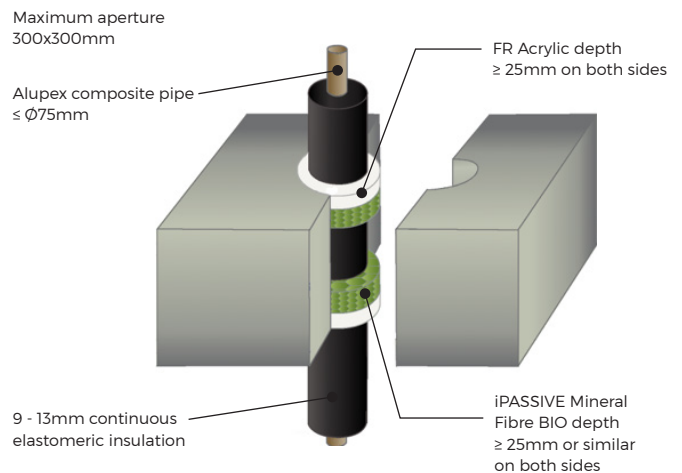
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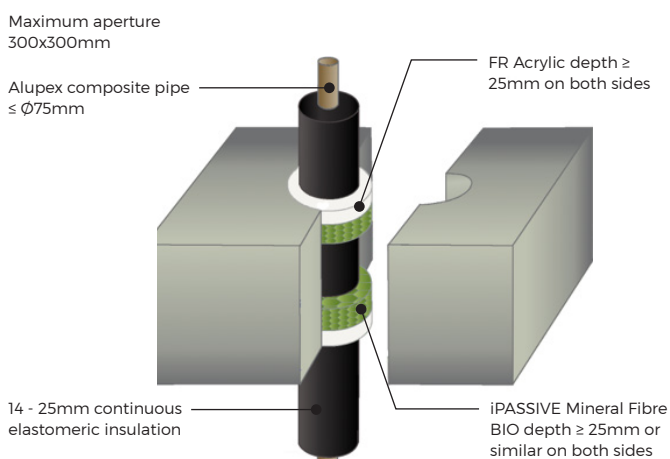
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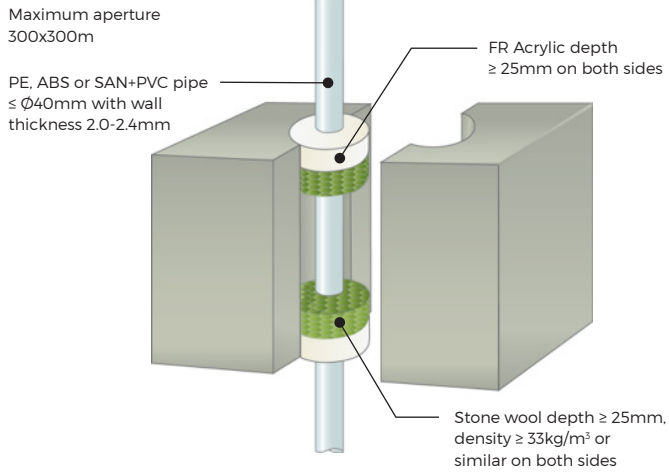


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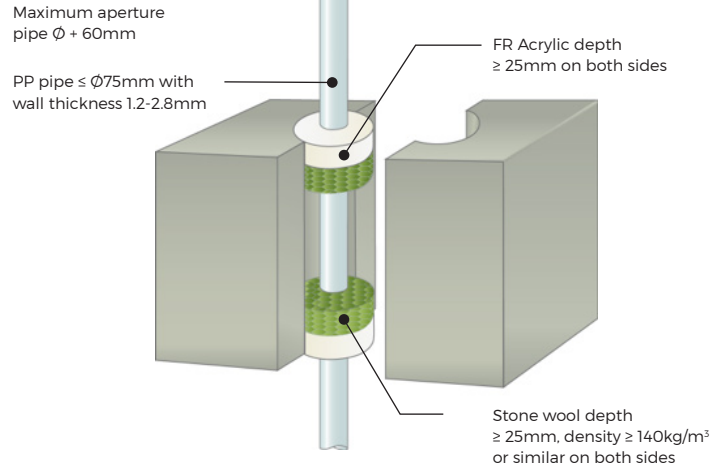


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS

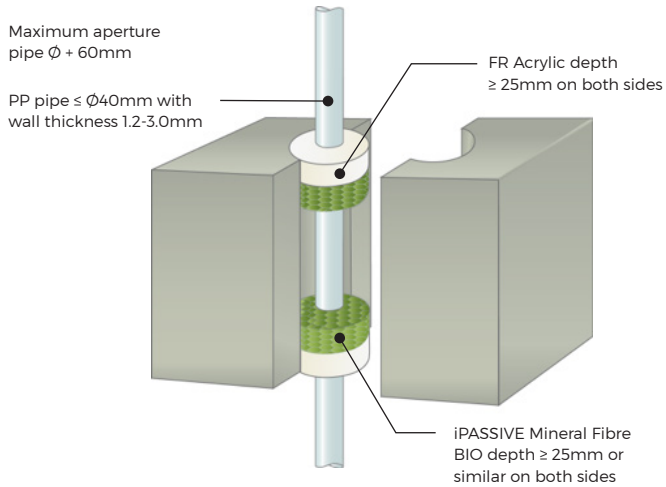
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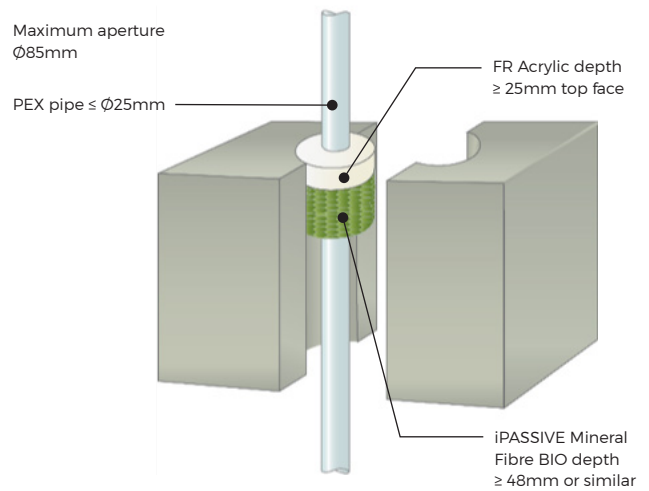
#### PP PLASTIC PIPE FIRE RESISTANCE -/180/180 U/C Rigid Floors



#### PP PLASTIC PIPE FIRE RESISTANCE -/120/120 U/C Rigid Floors



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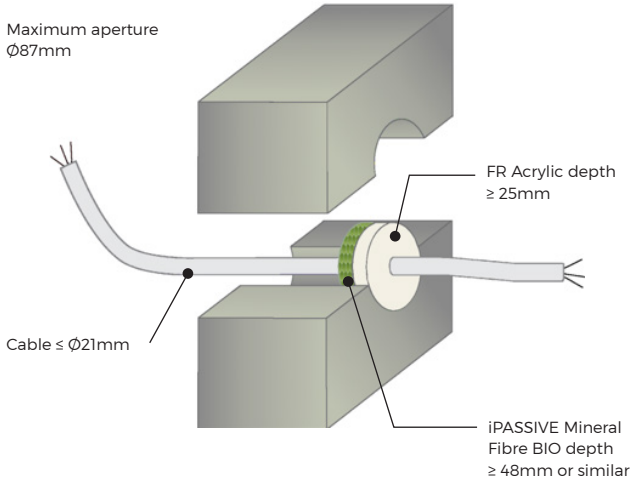




## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | FLOORS & WALLS

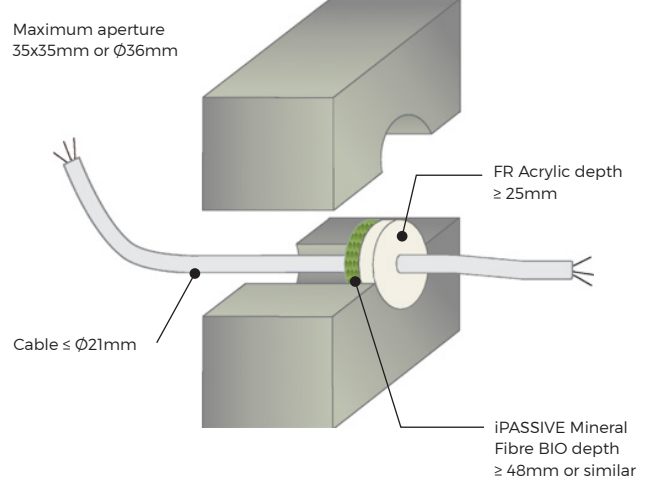
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Rigid Floors



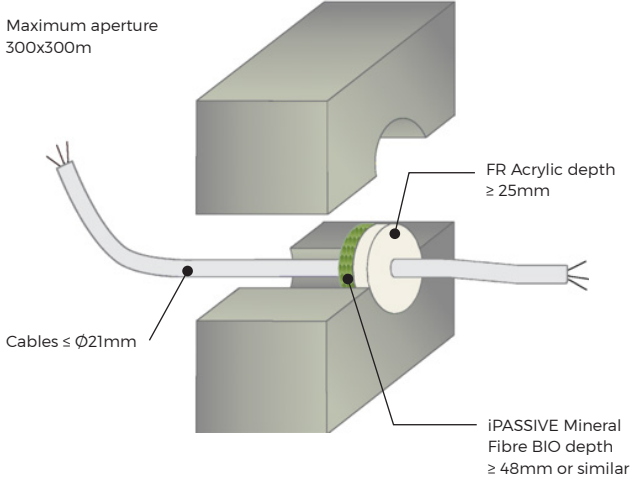
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Rigid Floors



### CABLES FIRE RESISTANCE -/240/60

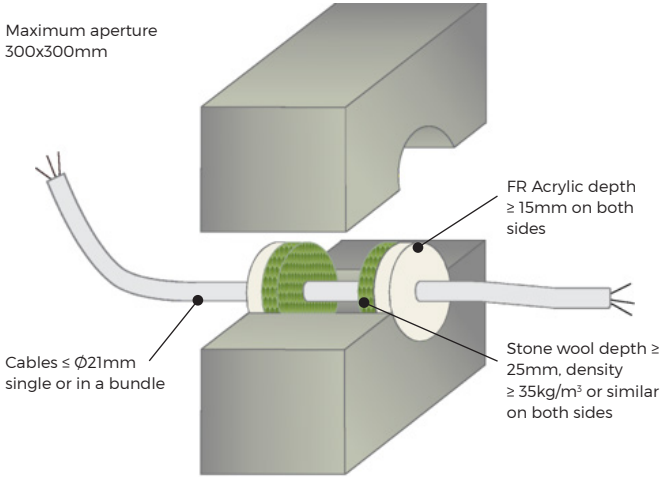
Rigid Floors



## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

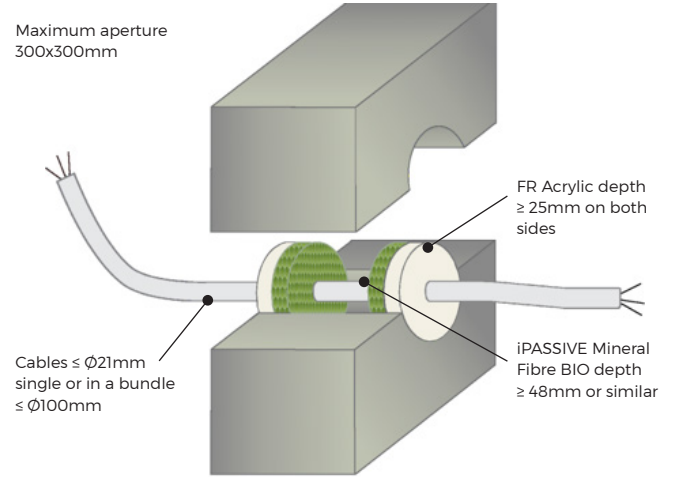
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Maximum aperture  
300x300mm



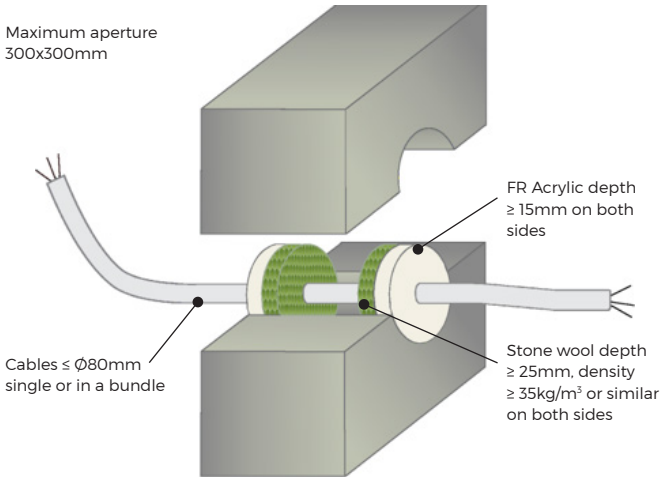
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Maximum aperture  
300x300mm



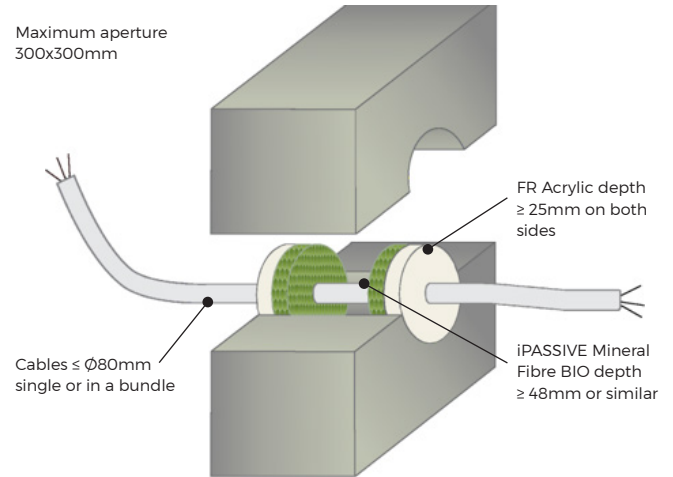
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Maximum aperture  
300x300mm



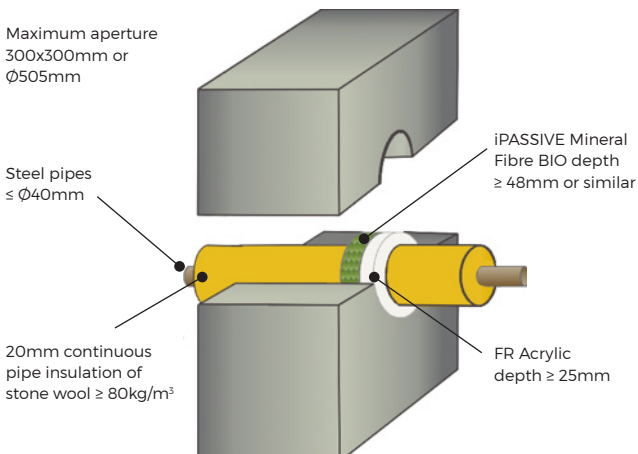
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Maximum aperture  
300x300mm



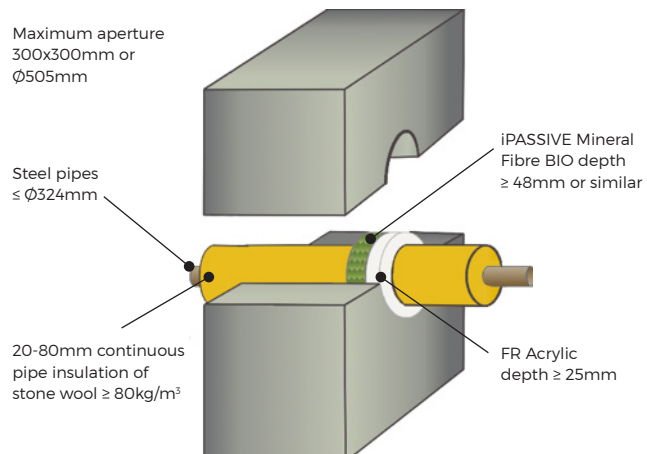
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Maximum aperture  
300x300mm or  
Ø505mm



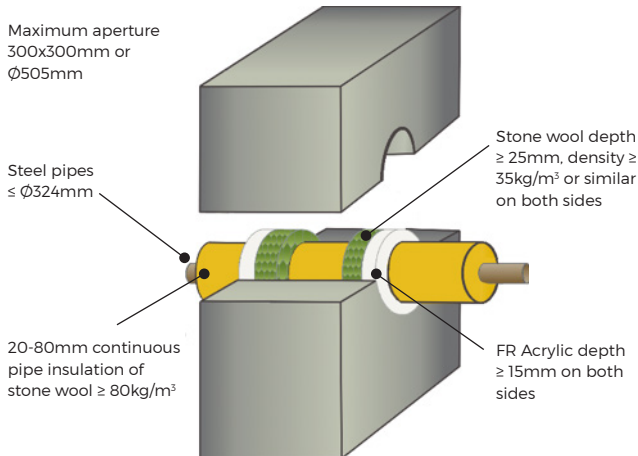
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Maximum aperture  
300x300mm or  
Ø505mm

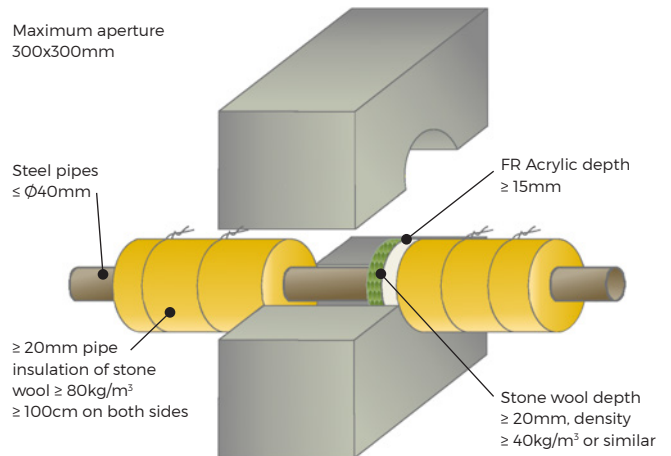


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

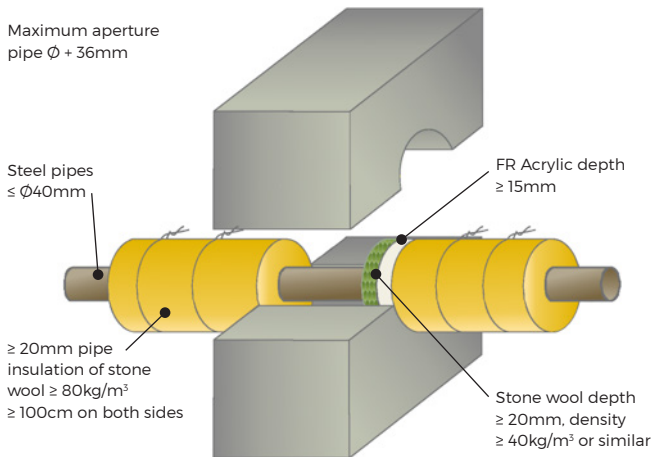
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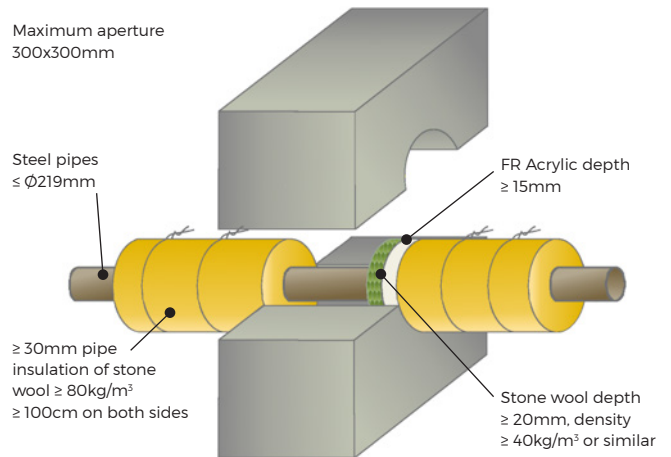
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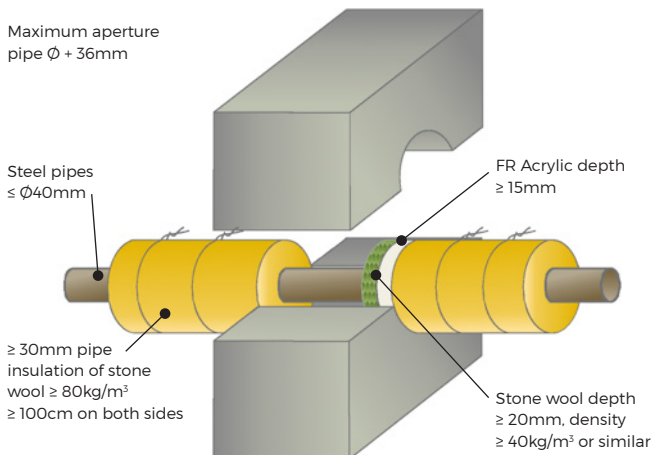
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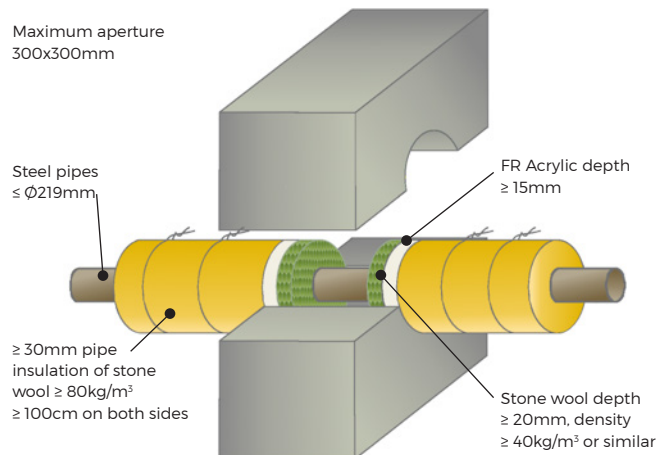
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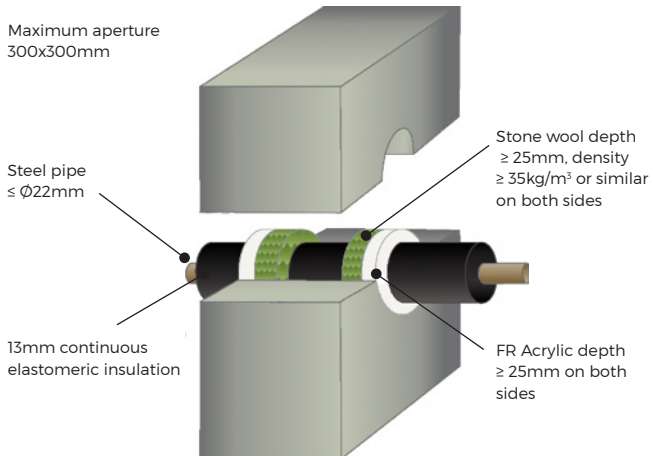


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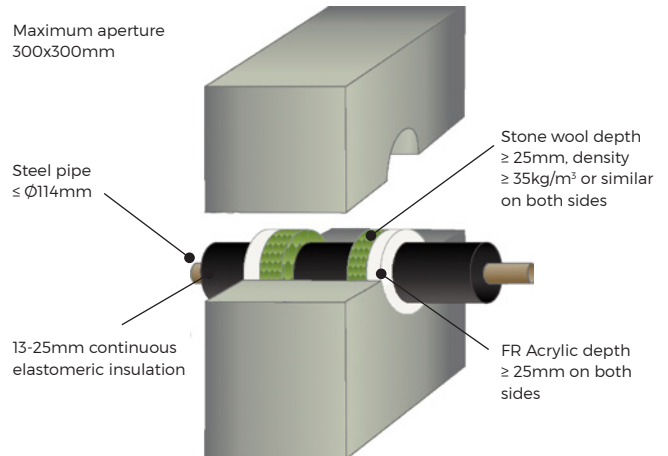


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

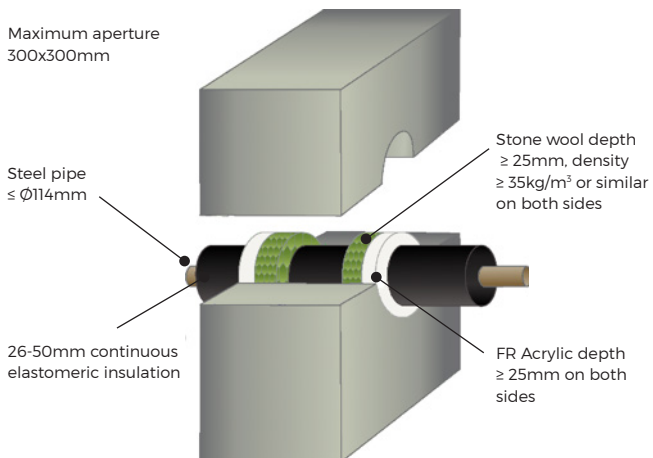
**STEEL PIPE FIRE RESISTANCE -/240/180 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls



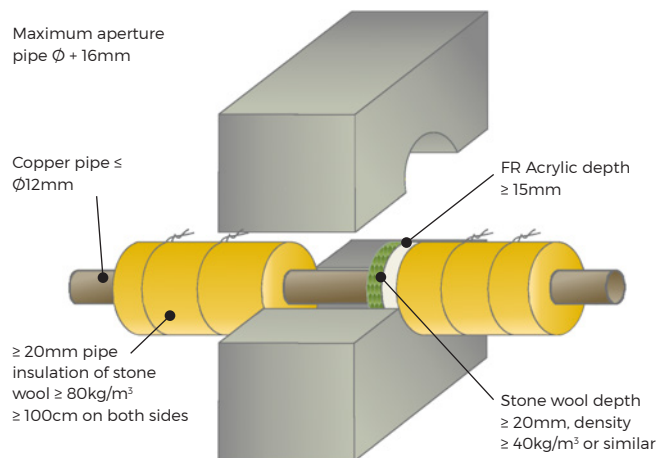
**STEEL PIPE FIRE RESISTANCE -/120/90 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls



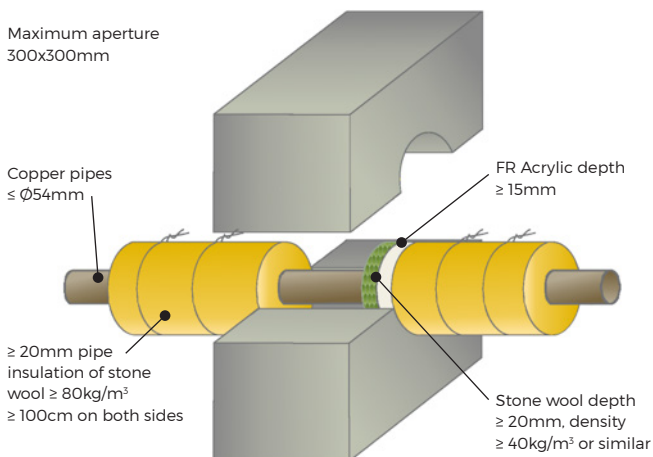
**STEEL PIPE FIRE RESISTANCE -/60/60 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls



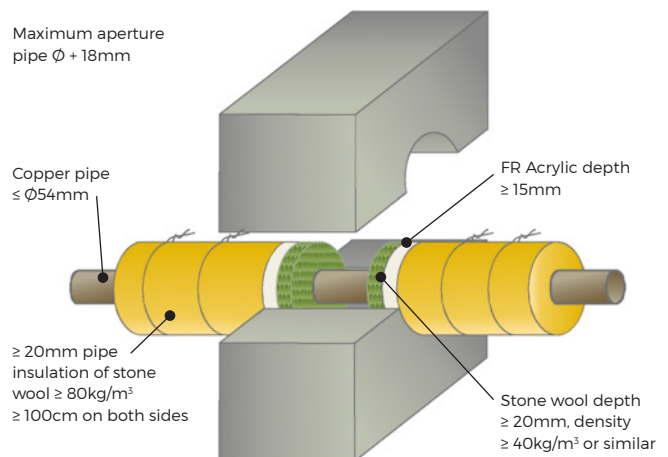
**COPPER PIPE FIRE RESISTANCE -/240/240 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls



**COPPER PIPES FIRE RESISTANCE -/240/60 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls

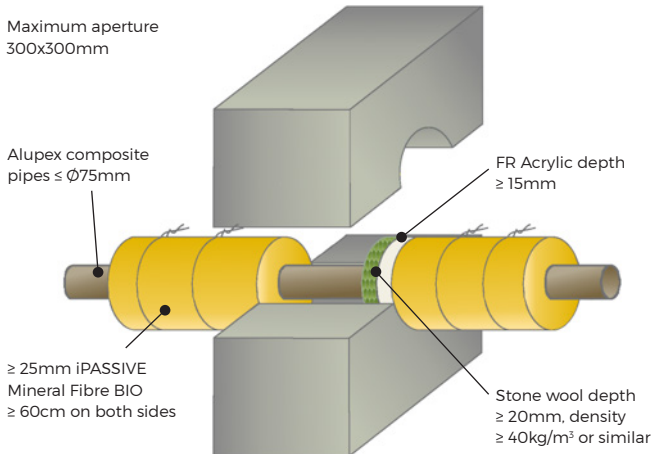


**COPPER PIPE FIRE RESISTANCE -/240/180 C/U**  
 ≥ 150mm Masonry Or Concrete - Walls

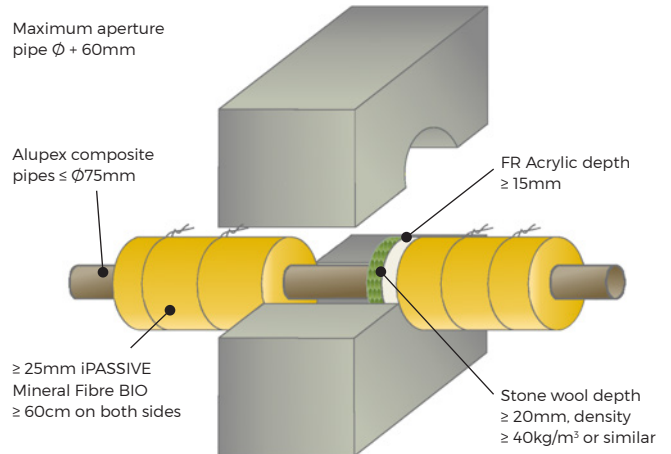


## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

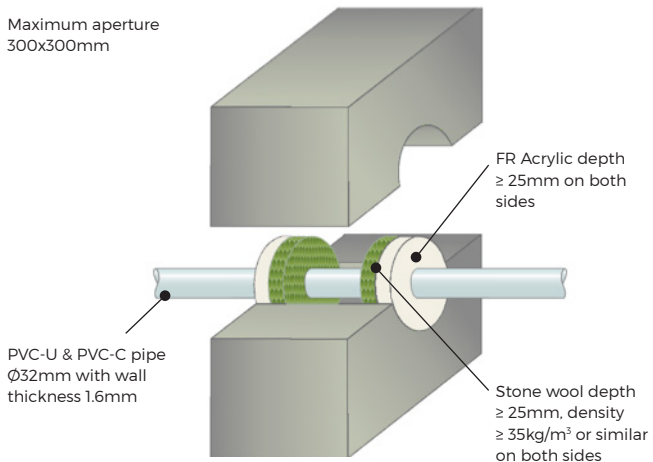
### ALUPEX PIPES FIRE RESISTANCE -/240/60 C/U ≥ 150mm Masonry Or Concrete - Walls



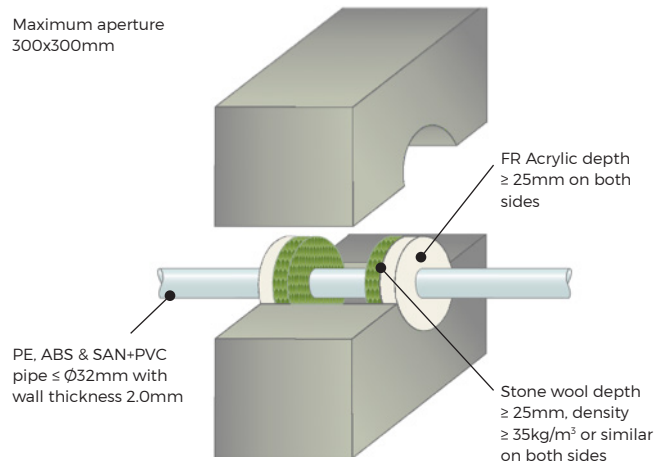
### ALUPEX PIPE FIRE RESISTANCE -/120/120 C/U ≥ 150mm Masonry Or Concrete - Walls



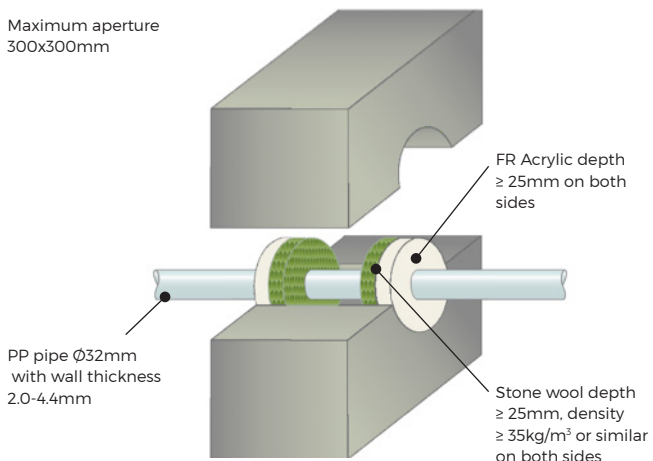
### PVC PLASTIC PIPE FIRE RESISTANCE -/240/240 U/C ≥ 150mm Masonry Or Concrete - Walls



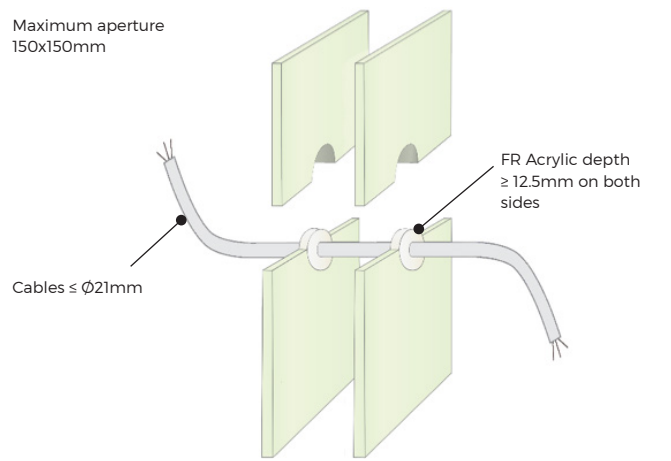
### PE PLASTIC PIPE FIRE RESISTANCE -/240/240 C/U ≥ 150mm Masonry Or Concrete - Walls



### PP PLASTIC PIPE FIRE RESISTANCE -/180/180 C/U ≥ 150mm Masonry Or Concrete - Walls



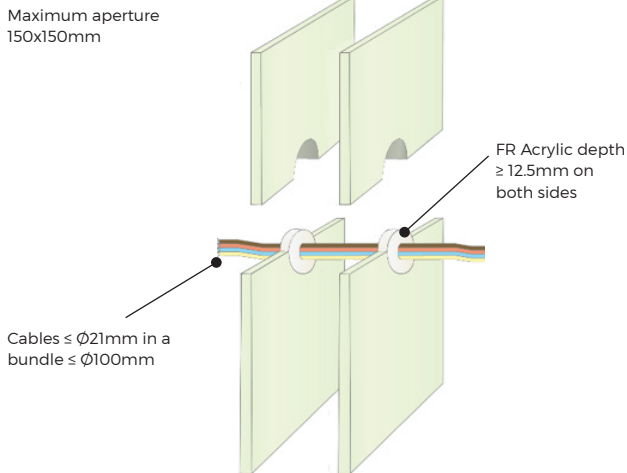
### CABLES FIRE RESISTANCE -/60/30 ≥ 75mm Gypsum, Masonry Or Concrete - Walls



### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

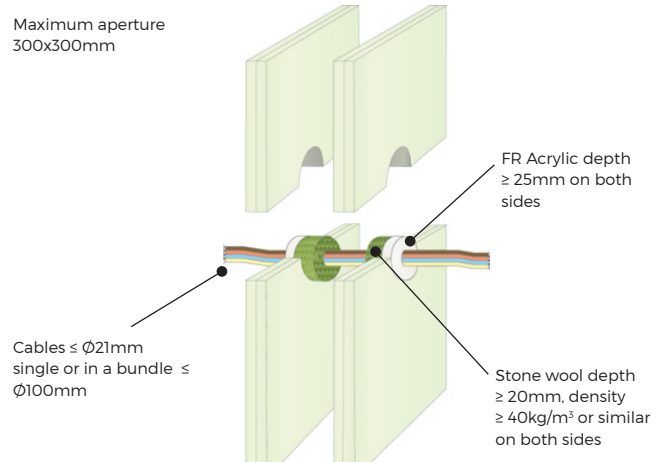
#### CABLES FIRE RESISTANCE -/30/30

≥ 75mm Gypsum, Masonry Or Concrete - Walls



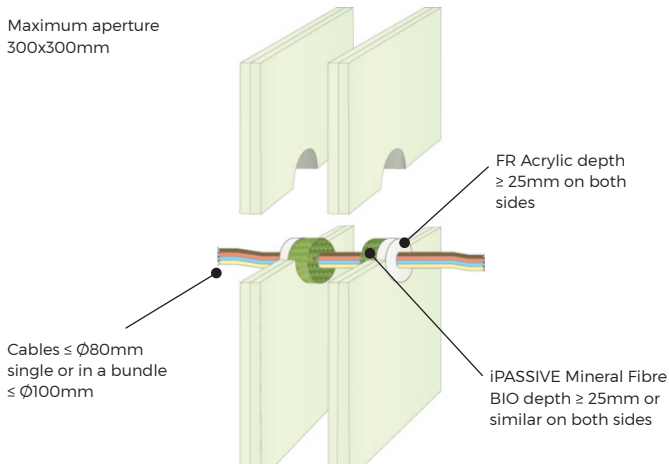
#### CABLES FIRE RESISTANCE -/120/120

≥ 100mm Gypsum, Masonry Or Concrete - Walls



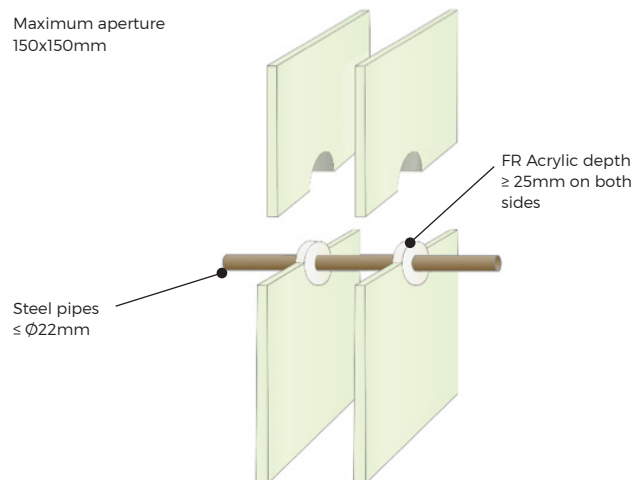
#### CABLES FIRE RESISTANCE -/120/60

≥ 100mm Gypsum, Masonry Or Concrete - Walls



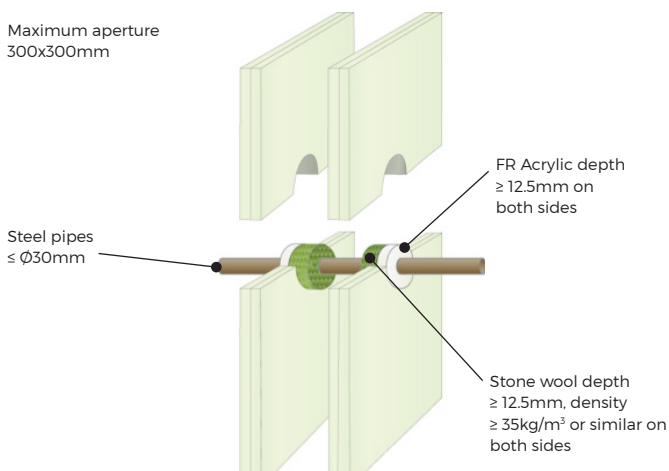
#### STEEL PIPE FIRE RESISTANCE -/60/30 C/U

≥ 75mm Gypsum, Masonry Or Concrete - Walls



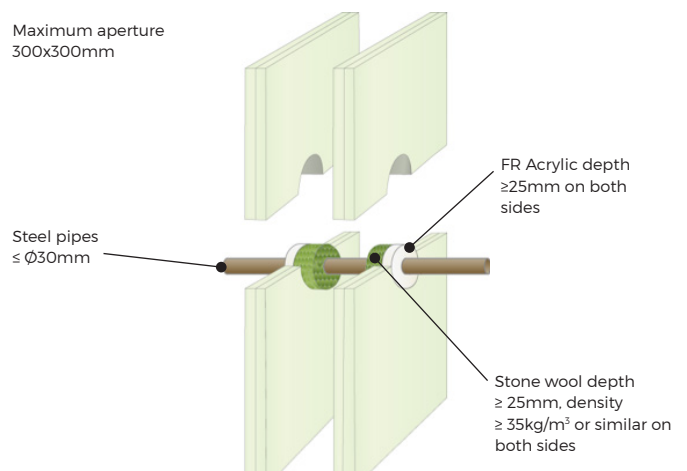
#### STEEL PIPES FIRE RESISTANCE -/90/90 C/C

≥ 100mm Gypsum, Masonry Or Concrete - Walls



#### STEEL PIPES FIRE RESISTANCE -/120/120 C/C

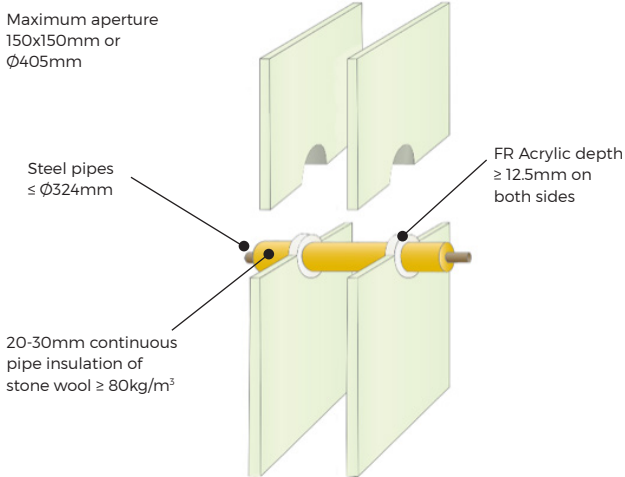
≥ 100mm Gypsum, Masonry Or Concrete - Walls



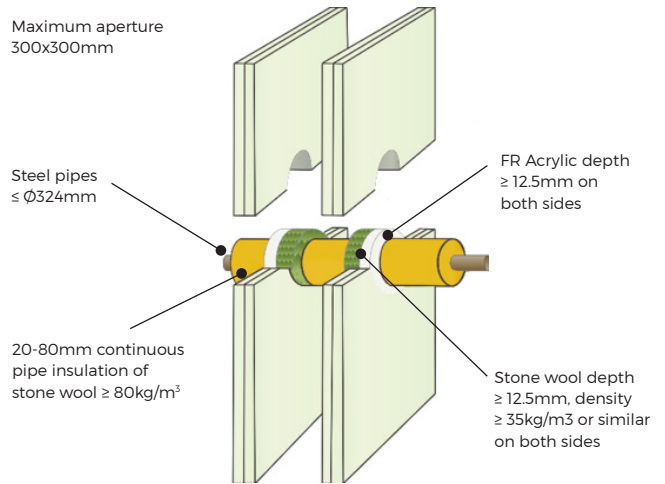


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

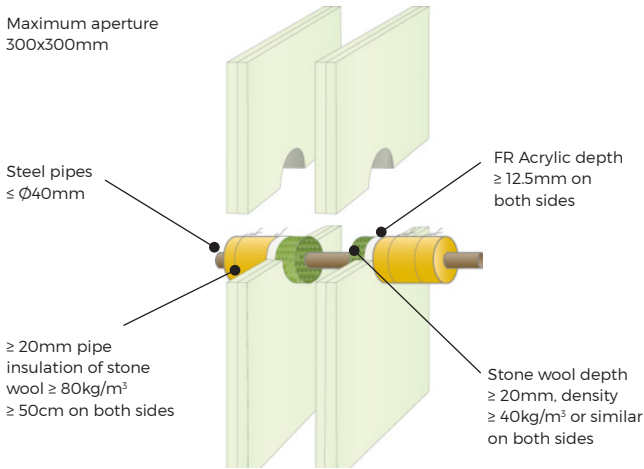
#### INSULATED STEEL PIPES FIRE RESISTANCE -/60/30 C/U ≥ 75mm Gypsum, Masonry Or Concrete - Walls



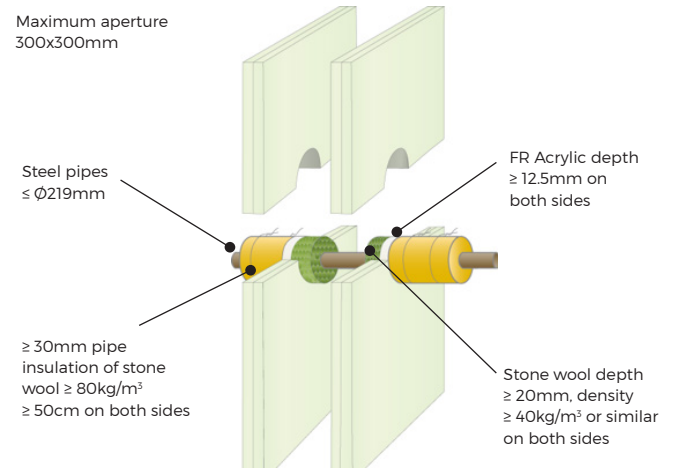
#### INSULATED STEEL PIPES FIRE RESISTANCE -/120/90 C/U ≥ 100mm Gypsum, Masonry Or Concrete - Walls



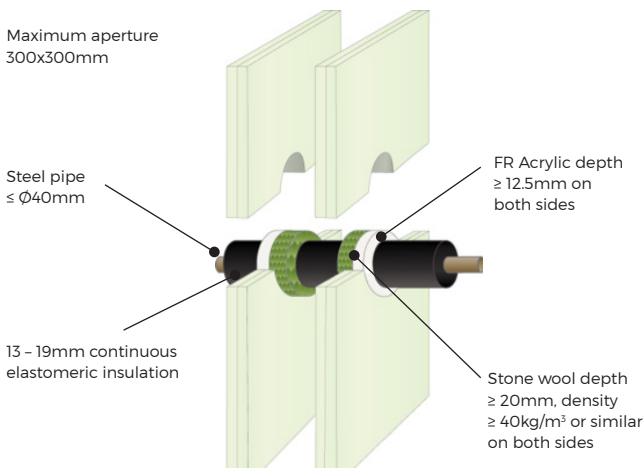
#### STEEL PIPES FIRE RESISTANCE -/120/120 C/U ≥ 100mm Gypsum, Masonry Or Concrete - Walls



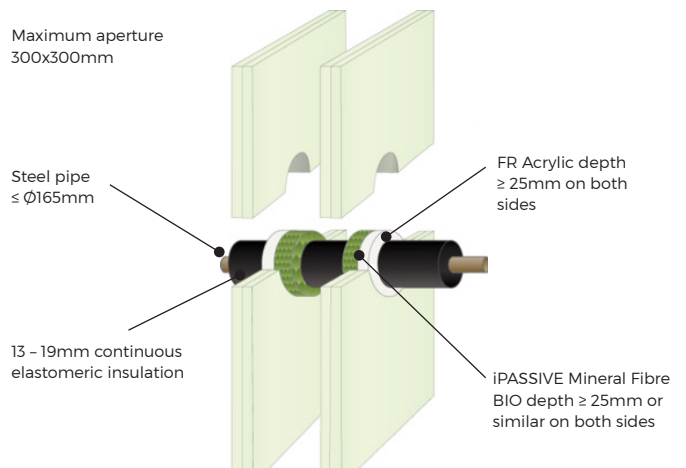
#### STEEL PIPES FIRE RESISTANCE -/120/90 C/U ≥ 100mm Gypsum, Masonry Or Concrete - Walls



#### STEEL PIPE FIRE RESISTANCE -/120/120 C/C ≥ 100mm Gypsum, Masonry Or Concrete - Walls

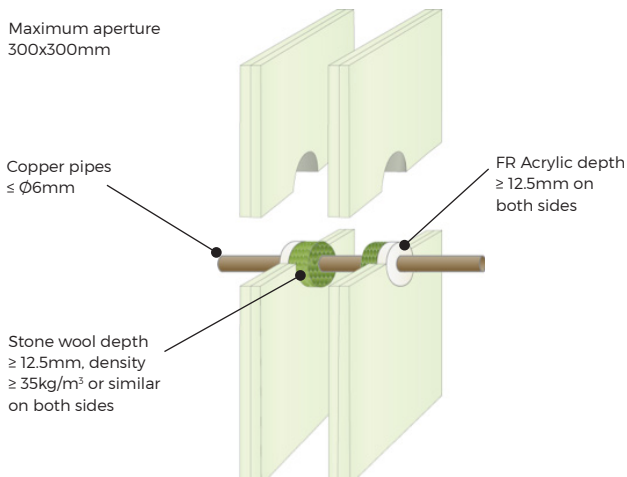


#### STEEL PIPES FIRE RESISTANCE -/120/60 C/C ≥ 100mm Gypsum, Masonry Or Concrete - Walls

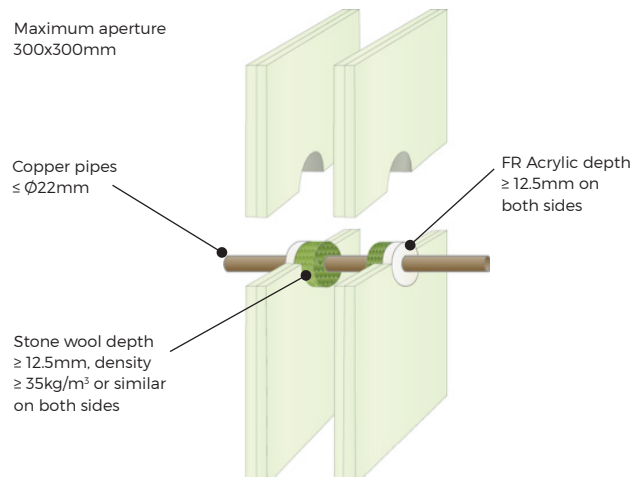


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

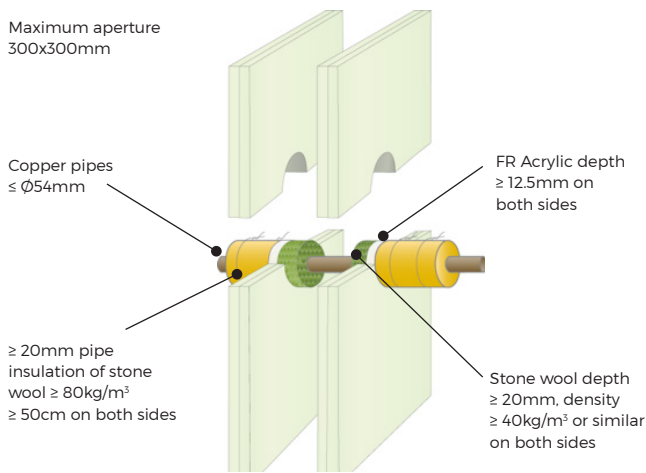
**COPPER PIPES FIRE RESISTANCE -/90/60 C/C**  
 ≥100mm Gypsum, Masonry Or Concrete - Walls



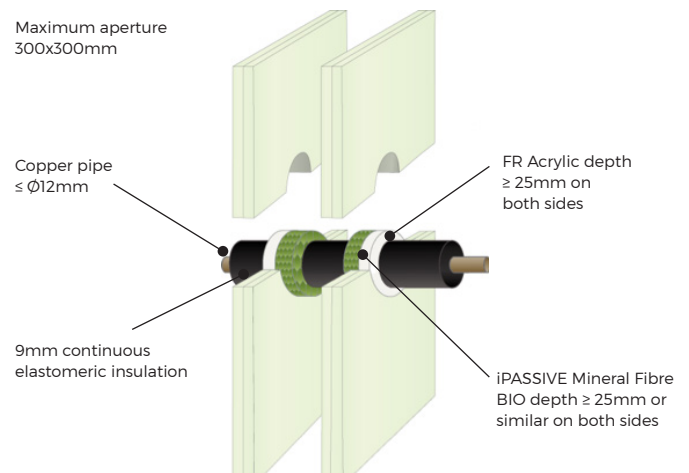
**COPPER PIPES FIRE RESISTANCE -/90/30 C/C**  
 ≥ 100mm Gypsum, Masonry Or Concrete - Walls



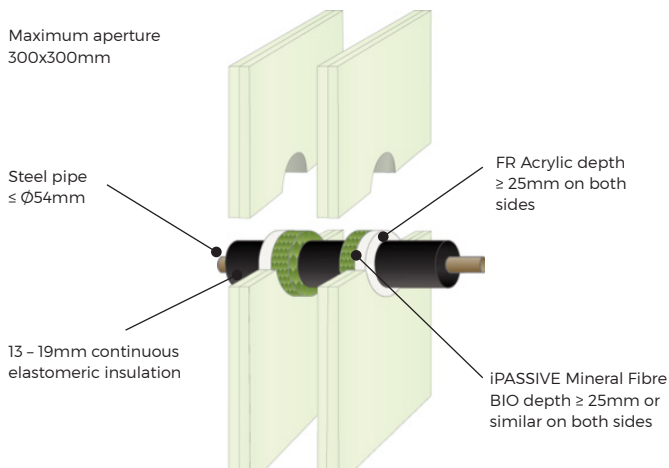
**COPPER PIPES FIRE RESISTANCE -/120/120 C/U**  
 ≥100mm Gypsum, Masonry Or Concrete - Walls



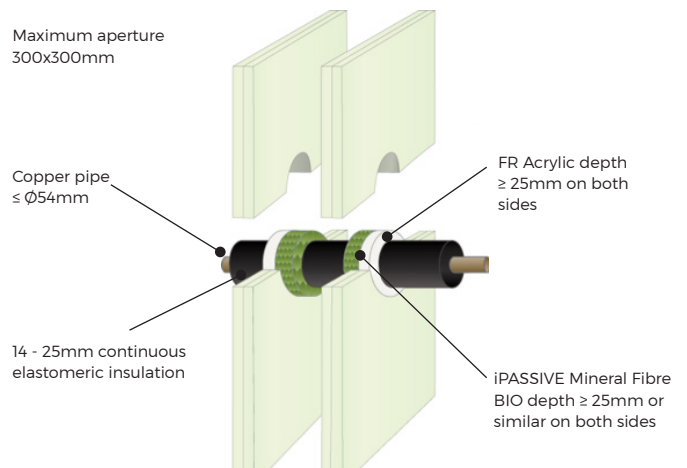
**COPPER PIPE FIRE RESISTANCE -/120/120 C/C**  
 ≥ 100mm Gypsum, Masonry Or Concrete - Walls



**COPPER PIPES FIRE RESISTANCE -/120/60 C/C**  
 ≥ 100mm Gypsum, Masonry Or Concrete - Walls

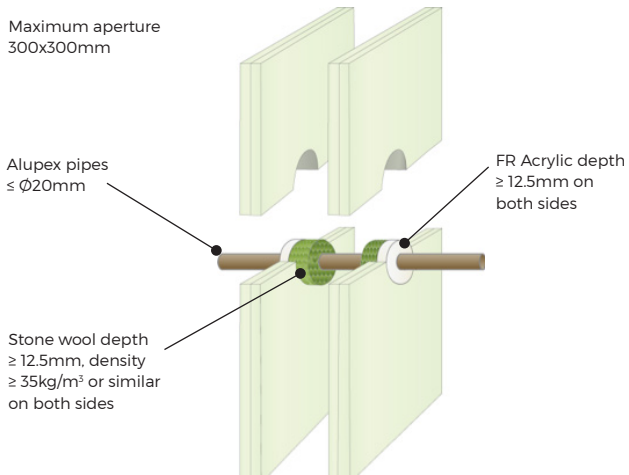


**COPPER PIPE FIRE RESISTANCE -/60/60 C/C**  
 ≥ 100mm Gypsum, Masonry Or Concrete - Walls

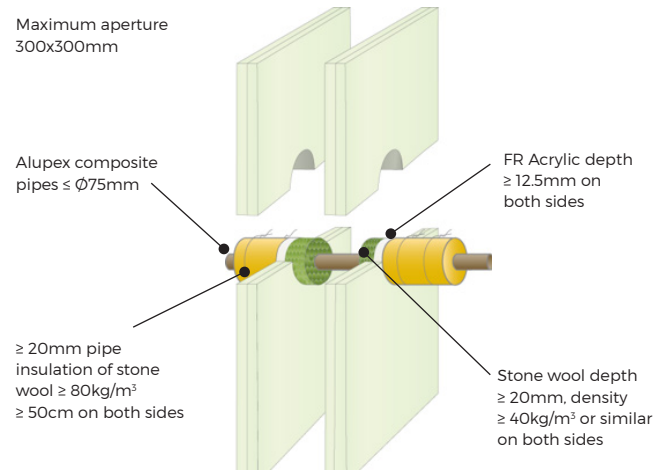


### DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

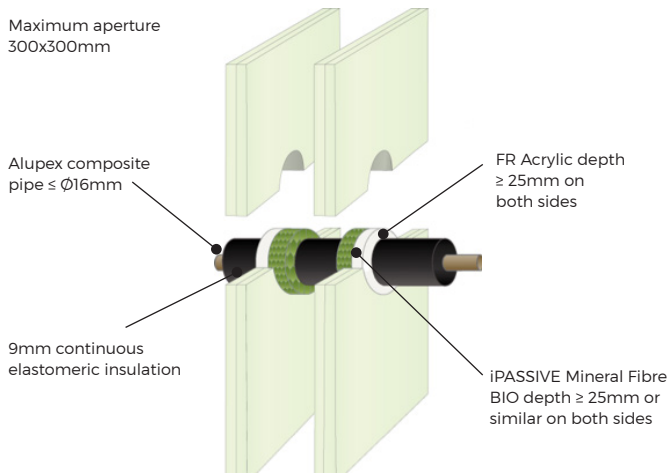
#### ALUPEX PIPES FIRE RESISTANCE -/120/120 C/C ≥100mm Gypsum, Masonry Or Concrete - Walls



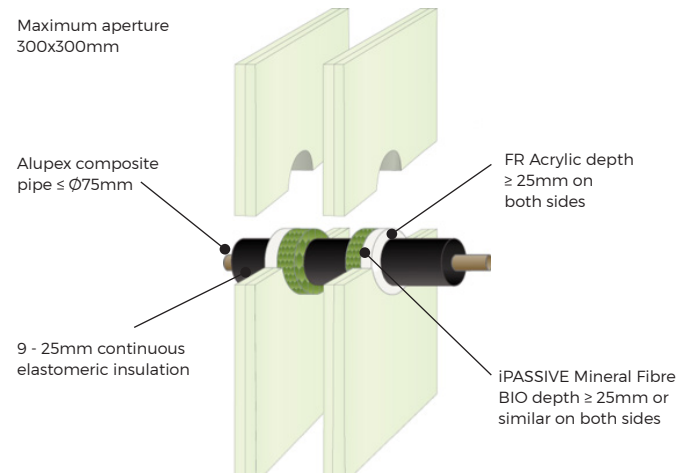
#### ALUPEX PIPES FIRE RESISTANCE -/120/120 C/C ≥ 100mm Gypsum, Masonry Or Concrete - Walls



#### ALUPEX PIPE FIRE RESISTANCE -/120/120 C/C ≥100mm Gypsum, Masonry Or Concrete - Walls



#### ALUPEX PIPE FIRE RESISTANCE -/60/60 C/C ≥ 100mm Gypsum, Masonry Or Concrete - Walls



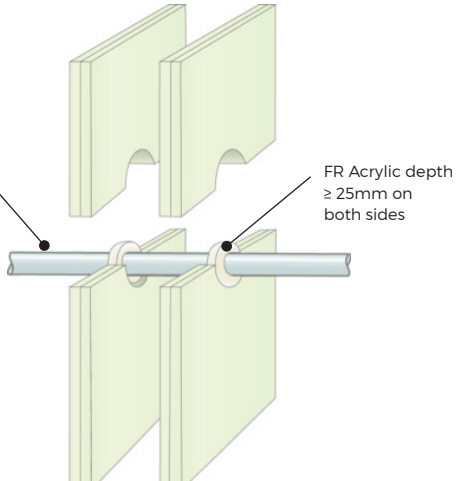
## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

### PVC PLASTIC PIPE FIRE RESISTANCE -/90/90 U/C

≥100mm Gypsum, Masonry Or Concrete - Walls

Maximum aperture  
pipe  $\varnothing$  + 20mm

PVC-U & PVC-C pipe  
≤  $\varnothing$ 32mm with wall  
thickness 1.0-2.4mm

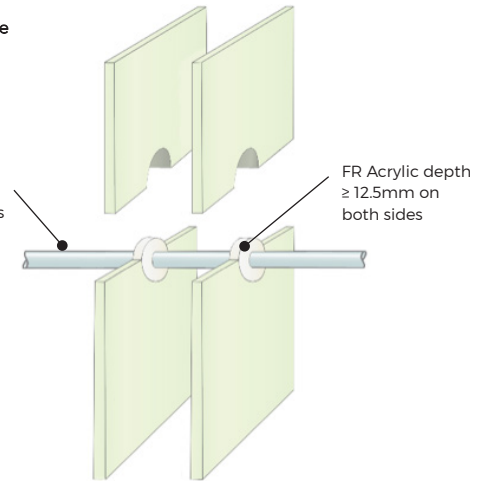


### PVC PLASTIC PIPE FIRE RESISTANCE -/30/30 U/C

≥ 100mm Gypsum, Masonry Or Concrete - Walls

Maximum aperture  
pipe  $\varnothing$  + 20mm

PVC-U & PVC-C  
pipe ≤  $\varnothing$ 32mm  
with wall thickness  
2.0-3.0mm

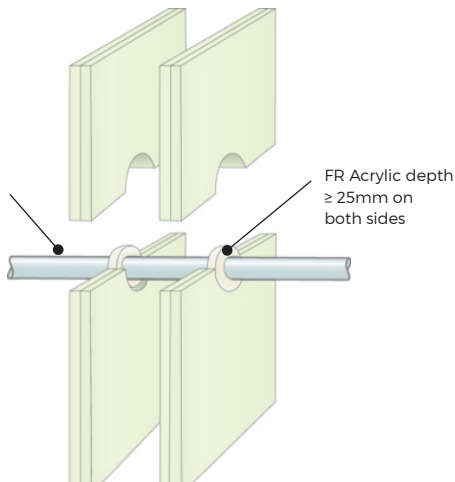


### PP PLASTIC PIPE FIRE RESISTANCE -/90/90 U/C

≥ 100mm Gypsum, Masonry Or Concrete - Walls

Maximum aperture  
pipe  $\varnothing$  + 58mm

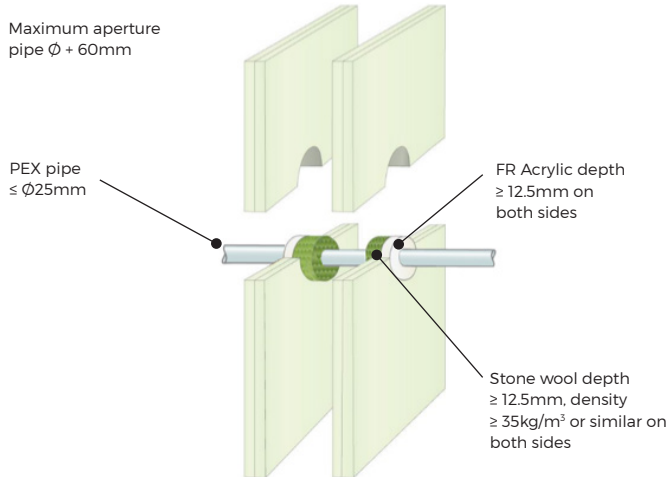
PP pipe ≤  $\varnothing$ 32mm  
with wall thickness  
2.0-4.4mm



## DETAIL DRAWINGS | IPASSIVE FR ACRYLIC | WALLS

### PEX PIPE-IN-PIPE SYSTEM FIRE RESISTANCE -/120/120 C/C

≥100mm Gypsum, Masonry Or Concrete - Walls



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