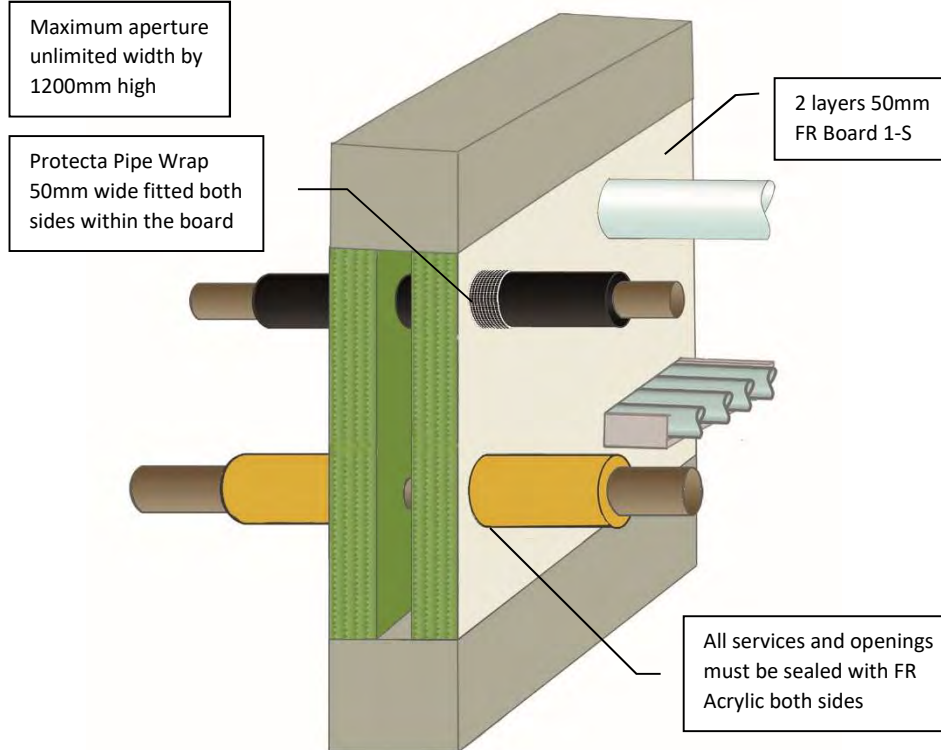


MIXED SERVICE APERTURE - FR BOARD - CONCRETE WALL

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Minimum separations and limitations

An aperture can include several services, and they may also be different. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. Services should be a minimum of 25mm from seal edges. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area. The minimum permitted separation between adjacent apertures is 200mm.

For Fire Classifications refer to relevant systems in this website

Products	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
Construction	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

Services

1. Cables $\leq \varnothing 80\text{mm}$ single or bundled, wires 185mm^2 and steel or PVC conduits $\leq \varnothing 16\text{mm}$, with or without cable trays
2. Steel pipes $\leq \varnothing 22\text{mm}$ without insulation
3. Steel pipes $\leq \varnothing 165\text{mm}$ with 13 - 32mm thick continuous foam insulation and 2 layers wrap
4. Steel pipes $\leq \varnothing 324\text{mm}$ with 32 - 50mm thick continuous foam insulation and 3 layers wrap
5. Steel pipes $\leq \varnothing 324\text{mm}$ with 20-80mm thick continuous stone wool insulation
6. Steel pipes $\leq \varnothing 219\text{mm}$ with $\geq 20\text{mm}$ thick interrupted stone wool insulation
7. Copper pipes $\leq \varnothing 6\text{mm}$ without insulation
8. Copper pipes $\leq \varnothing 54\text{mm}$ with 9 - 25mm thick continuous foam insulation and 2 layers wrap
9. Copper pipes $\leq \varnothing 54\text{mm}$ with $\geq 20\text{mm}$ thick interrupted stone wool insulation
10. Alupex pipes $\leq \varnothing 20\text{mm}$ without insulation
11. Alupex pipes $\leq \varnothing 75\text{mm}$ with 9 - 25mm thick continuous foam insulation and 2 layers wrap
12. Alupex pipes $\leq \varnothing 75\text{mm}$ with $\geq 20\text{mm}$ thick interrupted stone wool insulation
13. PEX pipe-in-pipes $\leq \varnothing 25\text{mm}$
14. Plastic pipes $\leq \varnothing 32\text{mm}$ without pipe wrap
15. Plastic pipes $\leq \varnothing 40\text{mm}$ with 1 layer of wrap
16. Plastic pipes $\varnothing 41 - \varnothing 110\text{mm}$ with 2 layers of pipe wrap
17. Plastic pipes $\varnothing 111 - \varnothing 125\text{mm}$ with 3 layers of pipe wrap
18. Plastic pipes $\varnothing 126 - \varnothing 160\text{mm}$ with 4 layers of pipe wrap



As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only. As Polyseam has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, is intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.

For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

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Scale: NTS	Drawn by & date: K.B. 16/1/21
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