



APPLICATION:

**Mixed Service Penetration**

ID:

**GB2001**

**INFORMATION:**

- Not to scale
- All units are in millimetres
- Tested to BS 476: Part 20 (1987)
- Sound insulation values
- Gas tightness

**CP 670 Firestop Board (TYPE B)**

**CP 670**

REV:  
**00**

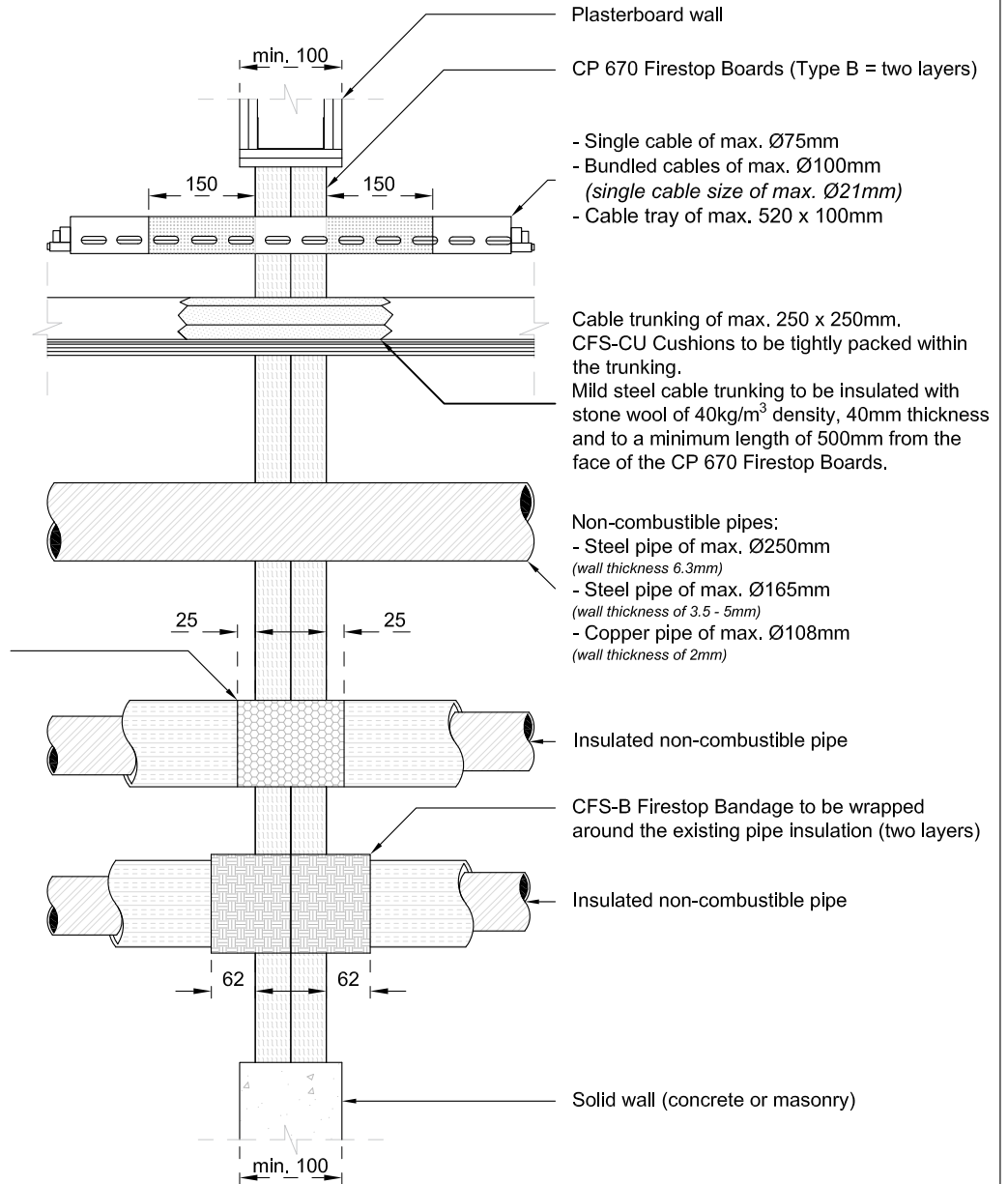
**Fire Rating to 120mins**

**Page 1/4**

Note: For a 120min fire rating all cable diameters must be coated with CP 670C Firestop Coating to 150mm length (min. 1mm dry film thickness)

CP 645 Firestop Sleeve installed around the non-combustible pipe ensuring a min. 25mm projection from the face of CP 670 Firestop Board. Existing insulation to be butted tightly to the CP 645 Firestop Sleeve and sealed accordingly.

Note: Non-combustible pipes to be insulated with stone wool of 40kg/m<sup>3</sup> density, 40mm thickness and to a minimum length of 500mm from the face of the CP 670 Firestop Board



Plasterboard wall

CP 670 Firestop Boards (Type B = two layers)

- Single cable of max. Ø75mm
- Bundled cables of max. Ø100mm (single cable size of max. Ø21mm)
- Cable tray of max. 520 x 100mm

Cable trunking of max. 250 x 250mm. CFS-CU Cushions to be tightly packed within the trunking. Mild steel cable trunking to be insulated with stone wool of 40kg/m<sup>3</sup> density, 40mm thickness and to a minimum length of 500mm from the face of the CP 670 Firestop Boards.

- Non-combustible pipes:
- Steel pipe of max. Ø250mm (wall thickness 6.3mm)
  - Steel pipe of max. Ø165mm (wall thickness of 3.5 - 5mm)
  - Copper pipe of max. Ø108mm (wall thickness of 2mm)

Insulated non-combustible pipe

CFS-B Firestop Bandage to be wrapped around the existing pipe insulation (two layers)

Insulated non-combustible pipe

Solid wall (concrete or masonry)

**Section view**

Sound insulation values for guidance (EN ISO 140-3, 140-10, 717-1)

Flexible wall	Rigid wall
D <sub>nw</sub> = 52dB	D <sub>nw</sub> = 42dB
R <sub>w</sub> = 37dB	R <sub>w</sub> = 27dB

Gas tightness (m<sup>3</sup>/h/m<sup>2</sup>) to EN 1026

	▲ 50 Pa	▲ 250 Pa
N <sub>2</sub>	≤ 0.032	≤ 0.159
CO <sub>2</sub>	≤ 0.060	≤ 0.299
CH <sub>4</sub>	≤ 0.065	≤ 0.327

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## CP 670 Firestop Board (TYPE B)

## CP 670

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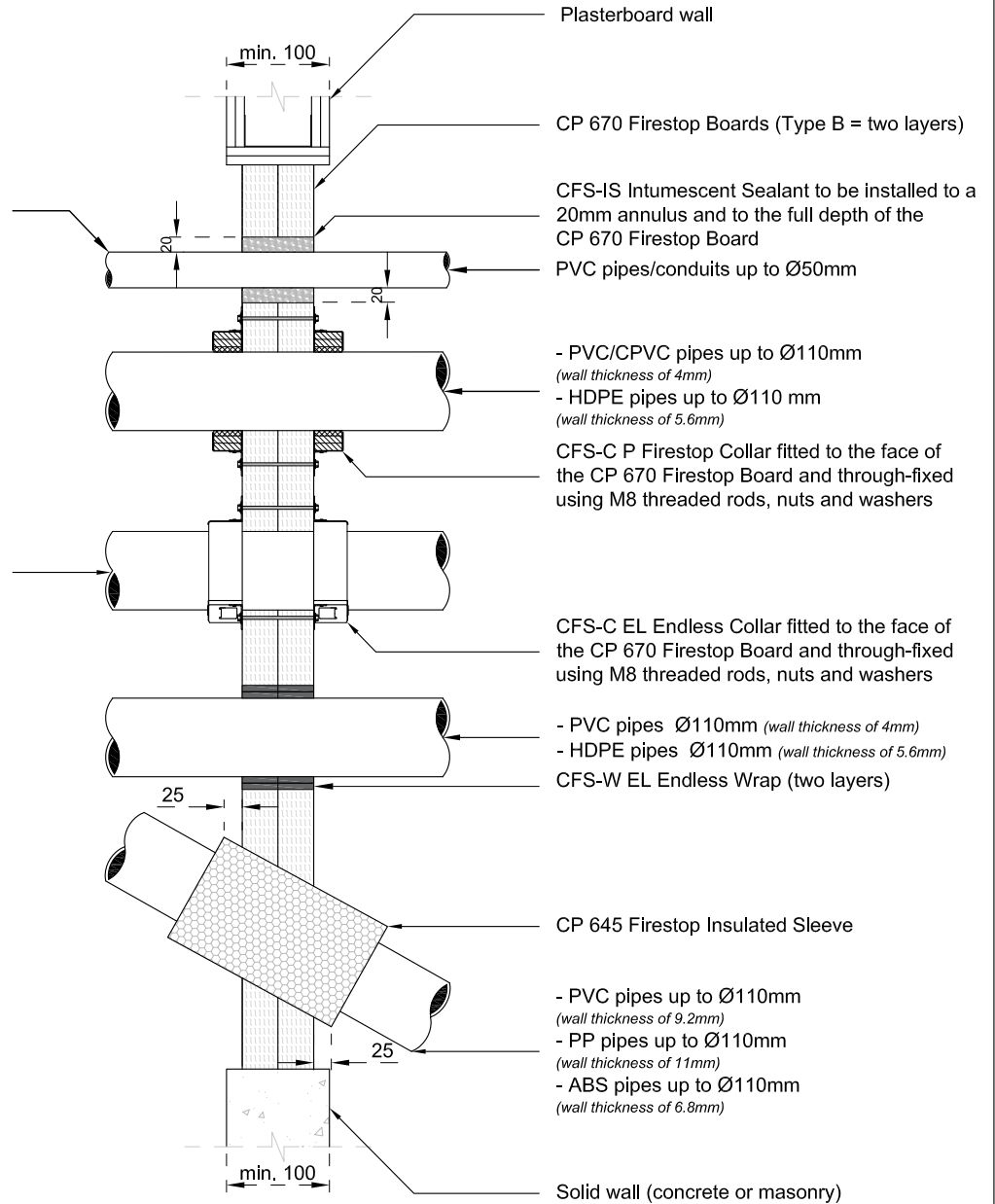
## Fire Rating to 120mins

## Page 2/4

\*\*\*CPVC pipes (e.g. sprinkler pipes) to Ø32mm  
 Note: CPVC pipes passing through CP 670 Firestop Boards must be sealed with CFS-FIL Filler Mastic only.  
 This application requires a project specific Engineering Judgment from Hilti

- PVC/CPVC pipes up to Ø110mm (wall thickness of 12.3mm)
- HDPE pipes up to Ø110mm (wall thickness of 3.1mm)
- PP pipes up to Ø110mm (wall thickness of 5.3mm)
- ABS pipes up to Ø110mm (wall thickness of 4.2mm)

Note: Plastic pipe wall thicknesses are to be proportional to the diameter when assessed to the limits shown.



Section view

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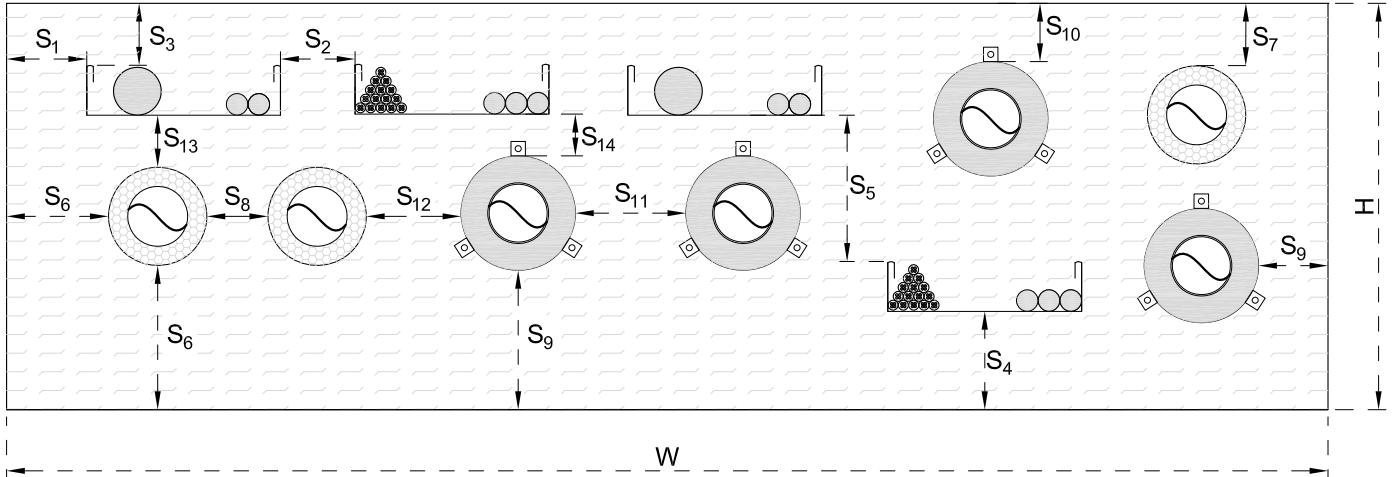
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**Fire Rating to 120mins**

**Page 3/4**

**CP 670 Firestop Boards (Type B) - Assessed allowable service spacing distances**



Reference	Distance (mm)	Spacing Information
S <sub>1</sub>	0	Distance between cables/cable supports and seal edge
S <sub>2</sub>	0	Distance between cable supports
S <sub>3</sub>	0	Distance between cables and upper seal edge
S <sub>4</sub>	0	Distance between cable supports and bottom seal edge
S <sub>5</sub>	50	Distance between cables and cable support above
S <sub>6</sub>	3	Distance between metal pipes and seal edge
S <sub>7</sub>	3	Distance between metal pipes and upper seal edge
S <sub>8</sub>	0	Distance between metal pipes
S <sub>9</sub>	17	Distance between plastic pipes/pipe closure devices and seal edge
S <sub>10</sub>	17	Distance between plastic pipes/pipe closure devices and upper seal edge
S <sub>11</sub>	0	Distance between plastic pipes/pipe closure devices
S <sub>12</sub>	30	Distance between metal pipes and plastic pipes/pipe closure devices
S <sub>13</sub>	3	Distance between cables/cable supports and metal pipes
S <sub>14</sub>	40	Distance between cables/cable supports and plastic pipes/pipe closure devices
<i>Note: Spacing distances obtained from the more rigorous EN 1366-3 testing regime</i>		
<b>CP 670 Coated Board (TYPE B) maximum opening size: 5000 x 1200 (W x H)</b>		
<b>For multiple openings, the separation distance between openings = 200mm</b>		

**Additional Notes:**

1. All services must be rigidly supported on both sides of the wall with a maximum distance of 500mm. All service support systems are to be fire-rated and provide support for the required fire rating duration.
2. The plasterboard wall/solid wall must be a minimum thickness of 100mm with a minimum fire rating of 120mins.
3. Pipe insulation criteria: non-combustible stone wool insulation with a density of 40kg/m<sup>3</sup> and a minimum length of 500mm from each face of the seal.
4. Apply CP 670C Firestop Coating of 1mm dry film thickness for individual cables or cable bundles Ø20mm - Ø75mm on both sides of the seal and with a minimum coating length of 150mm on each face of the seal to achieve a 120mins insulation rating.

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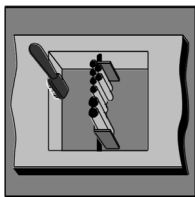
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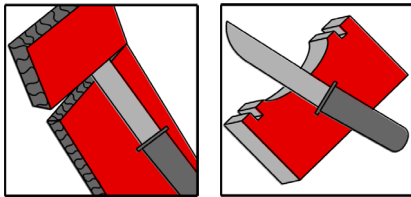
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**CP 670 Firestop Board (TYPE B)****CP 670**REV:  
**00****Fire Rating to 120mins****Page 4/4****Product Description**

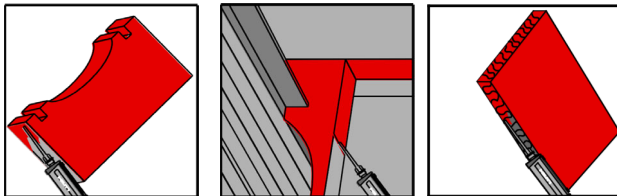
Hilti CP 670 Firestop Board is a stone wool rigid board pre-coated with Hilti CP 670C Firestop Coating. The CP 670 firestop board is supplied with dimensions of 1200 x 600 x 50mm. The CP 670C firestop coating is 0.7mm in thickness and is a white, ablatant and flexible one-component product essentially composed of a filling substance and a water-based acrylic binder.

**Installation Instructions**

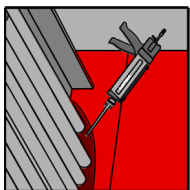
1. Clean the opening. Cables and supporting structures must be free of dust, grease/oil and installed in compliance with local building standards and/or manufacturer instructions.



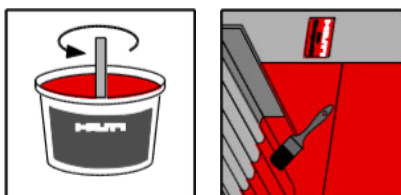
2. Cut the CP 670 firestop board to size and install within the opening. Install with as few pieces as possible. Cut out the required space to accommodate any penetrating services or items.



3. Coat/butter CP 606 firestop sealant to all exposed cut edges, joints of the CP 670 firestop boards and the surface of the opening. Firmly fit the cut & shaped CP 670 firestop board sections into the opening and around the services closing all gaps. Ensure all joints and mating surfaces are filled with CP 606 firestop sealant. Smooth off excess CP 606 firestop sealant with a spatula/putty knife. Where multiple boards are required, stagger joints between the layers.



4. Where applicable, plug any gaps with tightly compressed stone wool before applying CP 606 firestop sealant. Where handling has inadvertently caused exposure to the CP 670 firestop board, apply CP 670C firestop coating to a 0.7mm dry-film thickness.



5. Where firestop cable coating is required, initially stir the CP 670C firestop coating product. Apply CP 670C firestop coating using either a brush, roller or sprayer to a length of 150mm from the face of the CP 670 firestop board. Apply CP 670C firestop coating to a 1mm dry-film thickness.

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