

MARCH 2023

# PASSIVE FIRE PROTECTION SYSTEMS PLUMBING



**ALLPROOF**  
INDUSTRIES

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# WHAT IS THE BEST SOLUTION?

## Installation

### Floor

### Wall

### Ceiling

#### Pre Pour

#### Post Pour

#### Concrete

#### Plasterboard

#### Plasterboard

#### Timber



This document features current test results at time of publication.  
Contact Allproof for further information and the latest test results.

# FIRE TESTING

Allproof industries has an extensive testing programme with independent IANZ accredited fire testing laboratories and is consistently working with Industry to provide exceptional products that can help overcome issues regularly faced on site.

The passive fire protection products offered from Allproof are designed to contain a fire in the compartment of origin, thus limiting the spread of fire and smoke for a limited period of time. The fire ratings and installation details are illustrated in this document.

**All products are tested to AS1530.4 - 2014 and AS4072.1 - 2005.**

The passive fire protection products designed to protect service penetrations are tested using an open/closed format. That is, the pipe is capped on the fire side during the test and is open on the non fire side. When fire testing plastic pipes, 2m of pipe projects out of the supporting construction (wall or floor) and is deemed to be representative of general pipe systems - soil, waste and vent, water supply and reticulation.



# ADVANCED INTUMESCENT

At the core of the Allproof passive fire protection product range is the advanced intumescent technology. This enables Allproof to offer products with performance and design advantages for engineers and installers of passive fire protection products. Allproof's intumescent material expands when exposed to heat and as its volume increases with significant expansion pressure, it produces a stable char. The intumescent char formed is a poor conductor of heat, retarding heat transfer and retaining the integrity and insulation of service penetrations through otherwise fire-resistance rated walls, floors or ceilings.

## ALLPROOF INTUMESCENT TECHNOLOGY:

- Flexible rubber-like composition allows easy handling
- Graphite based
- Moisture resistant
- Silver/grey in colour
- Excellent expansion pressure and volume
- Material stable after expansion



Activated Allproof Intumescent during fire testing in a plasterboard wall.

# LOW PROFILE FIRE COLLARS



The low profile fire collars are designed to be installed in concrete, masonry fire rated walls and floors, and fire rated plasterboard walls. The Allproof fire collars consist of intumescent material encased in a steel surround with fixing tabs. The advanced intumescent technology allows Allproof to achieve a very low profile height of only 28mm.

When fire occurs the intumescent material expands against the steel surround as the flammable plastic pipe running through the collar

melts and burns away. The steel casing acts as an excellent heat sync ensuring fast activation of the intumescent, forming a stable fire resistant plug, maintaining both fire integrity and insulation.

Fire collars are designed to be exposed in a wall or floor application (i.e. face fixed). The collars should always be fixed to the underneath of the concrete floor. In wall situations one collar should be used on each exposed side of the fire rated wall.

## INSTALLATION INSTRUCTIONS:

1. Ensure substrate around pipe is flat and free from obstructions.
2. Open fire collar and position around pipe.
3. Slide tab through slot in fire collar and fold back 180° to secure.
4. Secure fire collar by using suitable fixings as per testing. Do not use fixings which rely on plastic or nylon components for grip.
5. Install only from underside on floor penetrations. Install fire collar on both sides for wall penetrations.
6. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.

## SUITABLE FOR FITTING TO:

- Concrete floors
- Hollow core construction floors
- Rib & timber / ply infill floors
- Composite floors
- Cross laminated timber floors
- Plasterboard ceilings
- Concrete, masonry walls
- Plasterboard walls
- Speedpanel walls
- Hebel Powerpanel walls

*Please contact us for further information for any results listed above but not available in this document.*

## FEATURES:

- Totally unaffected by water
- Unique low profile design
- Stainless or galvanized steel case
- Retro fitting - easy install slide tab
- For use on various penetrations

## CONCRETE SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER	WALL FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>								
40	70	2.0	ALLFC40	47	-/90/60	6017		
50	70	2.2	ALLFC50	57	-/90/60	4831		
65	70	2.7	ALLFC65	72	-/90/60	4831		
80	70	2.9	ALLFC80	87	-/90/60	4831		
100	70	3.2	ALLFC100	112	-/90/60	6017		
20	120	1.8	ALLFC25	28	-/120/120	5125		
40	150	2.0	ALLFC40	47	-/120/120	3788	-/120/120	5956
50	150	2.2	ALLFC50	57	-/120/120	3788	-/120/120	5957
65	150	2.7	ALLFC65	72	-/120/120	4100	-/180/180	4211
80	150	2.9	ALLFC80	87	-/120/120	3808	-/180/180	4211
100	150	3.2	ALLFC100	112	-/120/120	3788	-/120/120	3808
150	150	4.5	ALLFC150	162	-/120/120	4100	-/120/120	5957
225	150	6.0	ALLFC250	262	-/180/180	145430		
<b>PVC PLASTIC PIPE - WITH SOCKET</b>								
40	120	Socket	ALLFC40	47	-/240/180	5573		
50	150	Socket	ALLFC50	57	-/120/120	4465		
65	150	Socket	ALLFC65	72	-/120/120	4465		
80	150	Socket	ALLFC80	87	-/120/120	4465		
100	150	Socket	ALLFC100	112	-/120/120	3974		
<b>PVC PLASTIC STORMWATER PIPE</b>								
225	150	6.0	ALLFC250	262	-/240/180	143281-004		
<b>HDPE PLASTIC PIPE</b>								
50	150	3.0	ALLFC50	52	-/120/120	3974	-/120/120	4466
56	150	3.0	ALLFC50	58	-/120/120	4834		
63	150	3.0	ALLFC65	65	-/120/120	4834		
75	150	3.0	ALLFC80	77	-/120/120	3974	-/120/120	4836
110	150	4.3	ALLFC100	112	-/120/120	3974	-/120/120	4836
150	150	6.2	ALLFC150	162	-/120/120	4100		
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>								
20	120	2.2	ALLFC25	28	-/120/120	5125		
40	150	5.5	ALLFC40	42	-/120/120	4058	-/120/120	4836
75	150	10.3	ALLFC80	77	-/120/120	4058		
110	150	15.1	ALLFC100	112	-/90/90	4058		
<b>RAUPIANO PP-MD</b>								
40	120	1.8	ALLFC40	42	-/120/120	5169		
50	120	1.8	ALLFC50	52	-/120/120	5169		
75	120	1.9	ALLFC80	77	-/120/120	5169		
110	120	2.7	ALLFC100	112	-/120/120	5169		

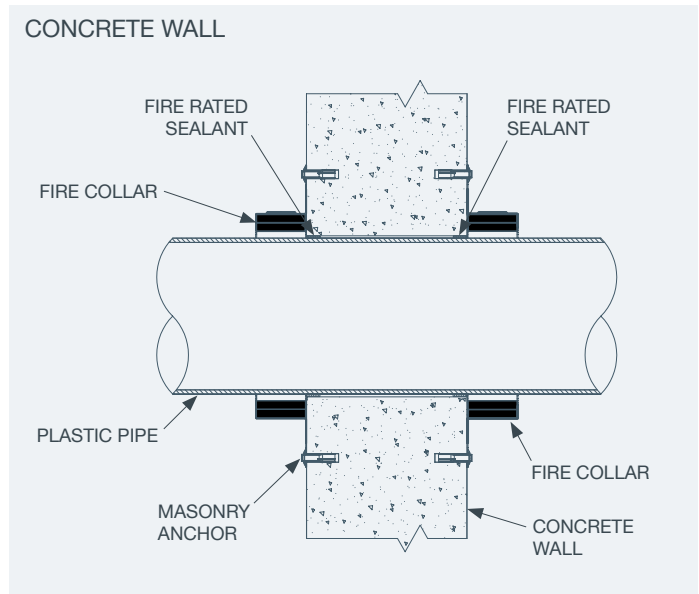
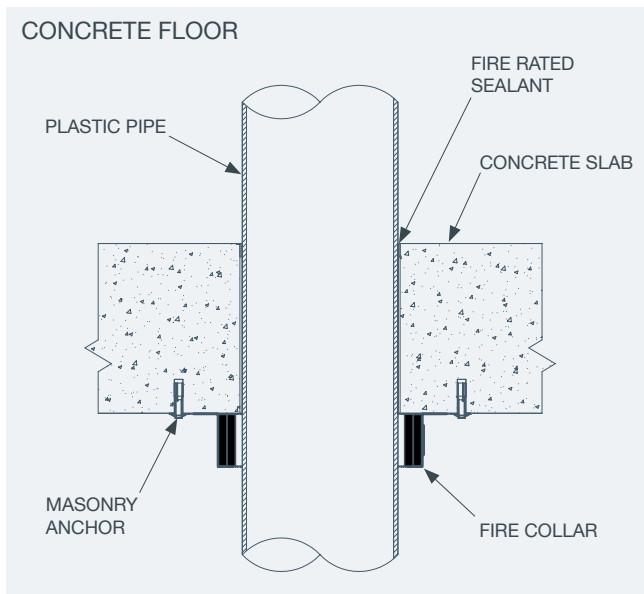
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# CONCRETE SLAB TEST RESULTS (CONTINUED):

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER	WALL FRL	REPORT NUMBER
<b>D BLUE PP-MD</b>								
40	120	1.8	ALLFC40	42	-/120/120	4467		
50	120	1.8	ALLFC50	52	-/240/240	5573		
75	120	2.3	ALLFC80	77	-/120/120	4467		
110	120	3.4	ALLFC100	112	-/240/240	5573		
<b>OTHER PLASTIC PIPE</b>								
16 PEX	120	2.35	ALLFC25	28	-/120/120	5125		
20 PEX	120	2.95	ALLFC25	28	-/120/120	12424-001		
25 PEX	120	3.75	ALLFC25	28	-/120/120	5125		
16 PB	120	1.7	ALLFC25	28	-/120/120	5125		
20 PB	120	2.1	ALLFC25	28	-/120/120	12424-001		
28 PB	120	2.8	ALLFC25	32	-/120/120	5125		
25 PEX/AL/PEX	120	2.8	ALLFC25	28	-/120/120	5125		

Fixing: Collars tested using M6x25 masonry anchors or M6x45mm Wedge Anchors.

## ALLFC25 - 150 CONCRETE INSTALLATION DETAILS:



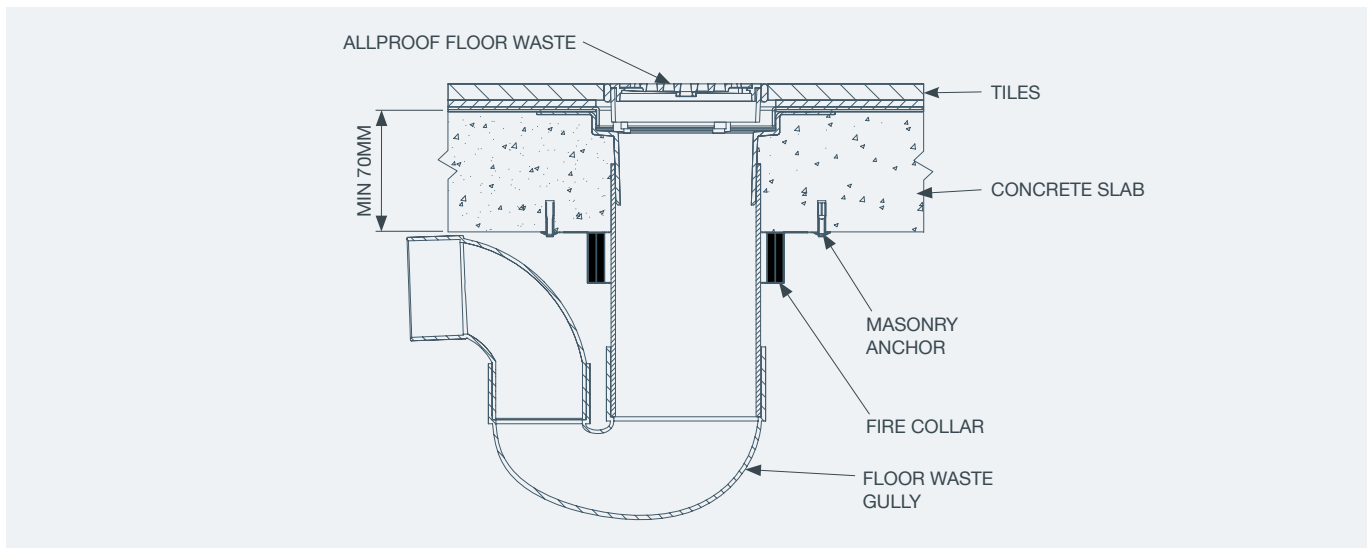


## CONCRETE SLAB FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>						
80	70	2.9	ALLFC80	92	-/120/120	10471
100	70	3.2	ALLFC100	117	-/120/0	10471
50	120	2.2	ALLFC50	57	-/180/120	145535
100	120	3.2	ALLFC100	112	-/120/120	5125
<b>PVC PLASTIC PIPE - WITH SOCKET</b>						
80	150	Socket	ALLFC80	87	-/120/0	145430
<b>HDPE PLASTIC PIPE</b>						
110	150	4.3	ALLFC100	112	-/120/120	145430

Fixing: Collars tested using M6x25 masonry anchors or M6x45mm Wedge Anchors.

## FLOOR WASTE INSTALLATION DETAILS:

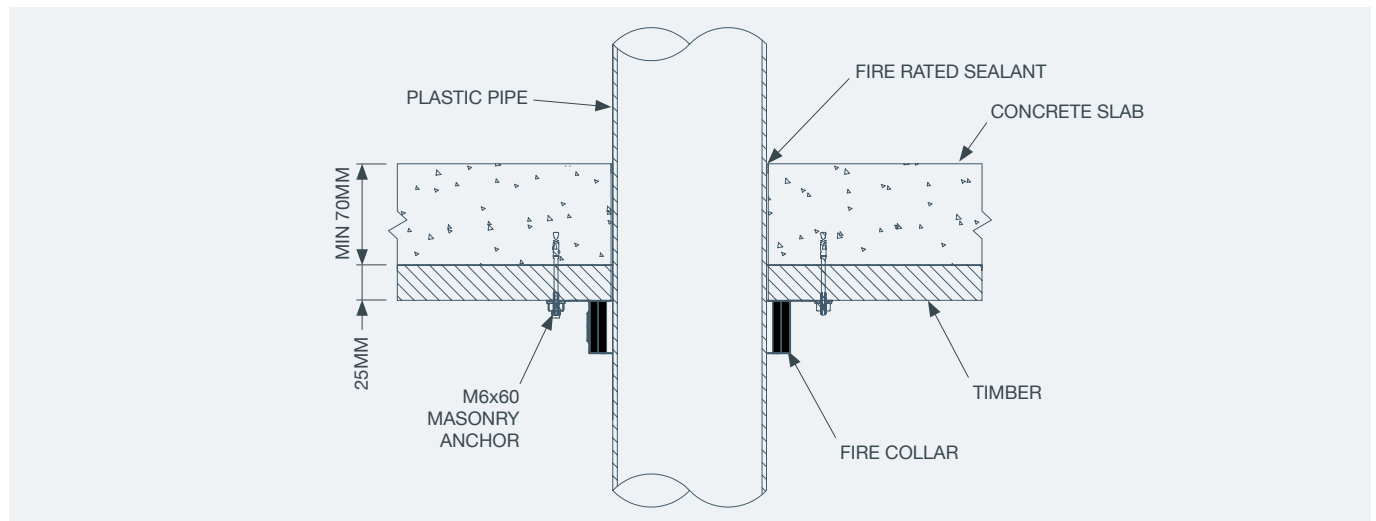


## RIB & TIMBER INFILL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>							
40	70	25	2.0	ALLFC40	52	-/120/120	10471
50	70	25	2.2	ALLFC50	67	-/120/120	10471
65	70	25	2.7	ALLFC65	77	-/120/120	10471
80	70	25	2.9	ALLFC80	92	-/120/120	10471
100	70	25	3.2	ALLFC100	117	-/120/90	10471
<b>OTHER PLASTIC PIPE</b>							
16 PEX	70	25	2.2	ALLFC25	28	-/90/60	143281-003
25 PEX	70	25	3.5	ALLFC25	28	-/60/30	143281-003
15 PB	70	25	1.6	ALLFC25	28	-/90/90	143281-003
28 PB	70	25	3.5	ALLFC25	32	-/90/90	143281-003
25 PEX/AL/PE	70	25	2.5	ALLFC25	28	-/90/60	143281-003
32 PP-R (SDR 11)	70	25	2.9	ALLFC40	40	-/90/90	143281-003

Fixing: Collars tested using M6x60 masonry anchors.

## RIB & TIMBER INFILL STACK INSTALLATION DETAILS:

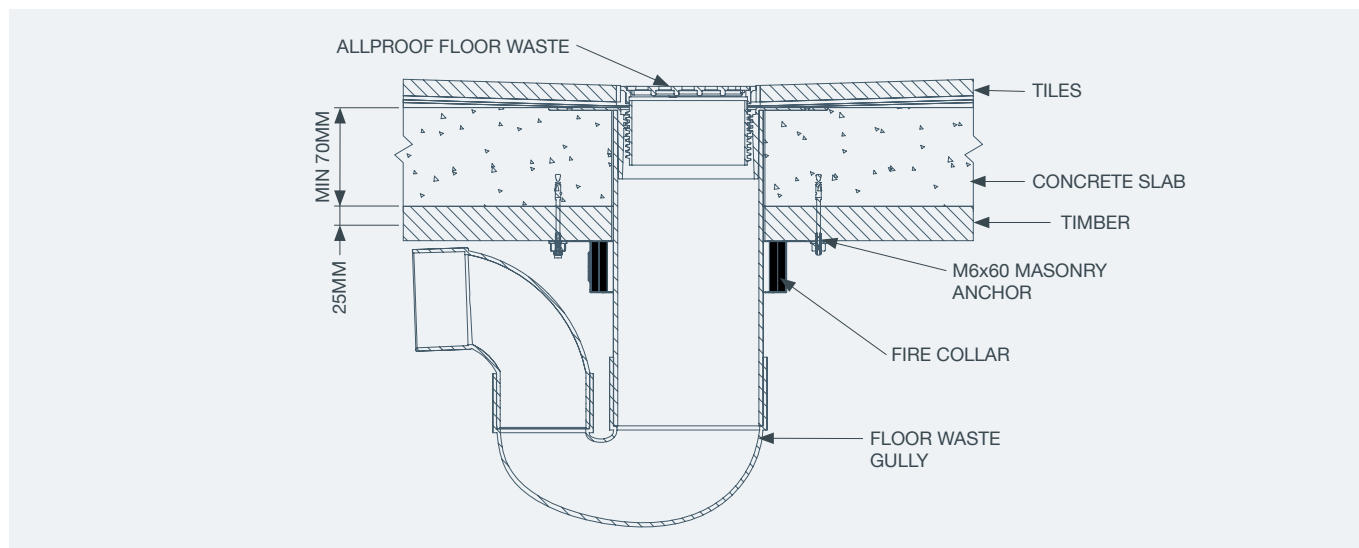


## RIB & TIMBER INFILL FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
PVC PLASTIC PIPE							
80	70	25	2.9	ALLFC80	92	-/120/120	10471
100	70	25	3.1	ALLFC100	117	-/120/120	10471

Fixing: Collars tested using M6x60 masonry anchors.

## RIB & TIMBER INFILL FLOOR WASTE INSTALLATION DETAILS:

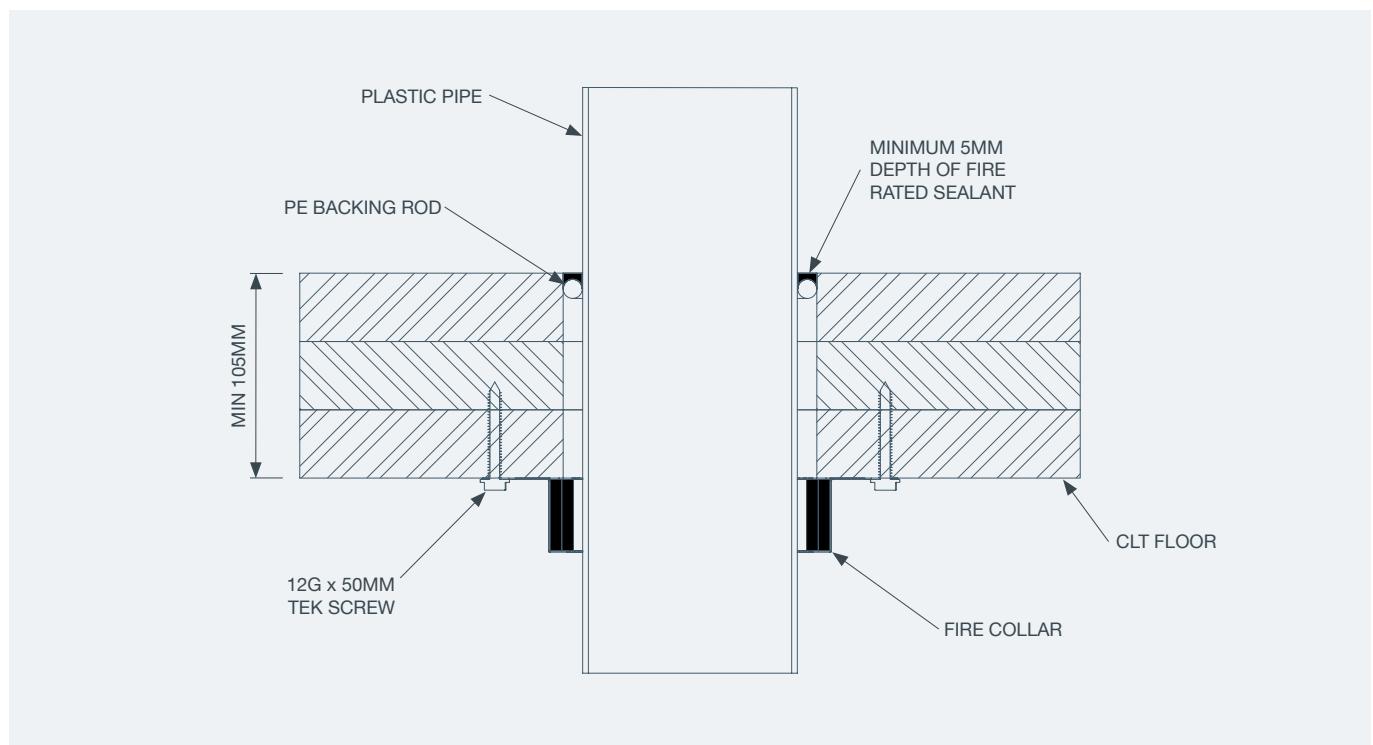


## CROSS LAMINATED TIMBER (CLT) TEST RESULTS:

NOMINAL PIPE SIZE (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>						
40	105		ALLFC40	53	-/60/60	145432
50	105		ALLFC50	66	-/60/60	145432
100	105		ALLFC100	120	-/60/60	145432
<b>PEX PIPE</b>						
16	105		ALLFC25	26	-/45/45	145432
20	105		ALLFC25	30	-/30/30	145432
25	105		ALLFC25	35	-/30/30	145432

Fixing: Collars tested using Tek Screw 12G x 50mm.

## CROSS LAMINATED TIMBER STACK INSTALLATION DETAILS:

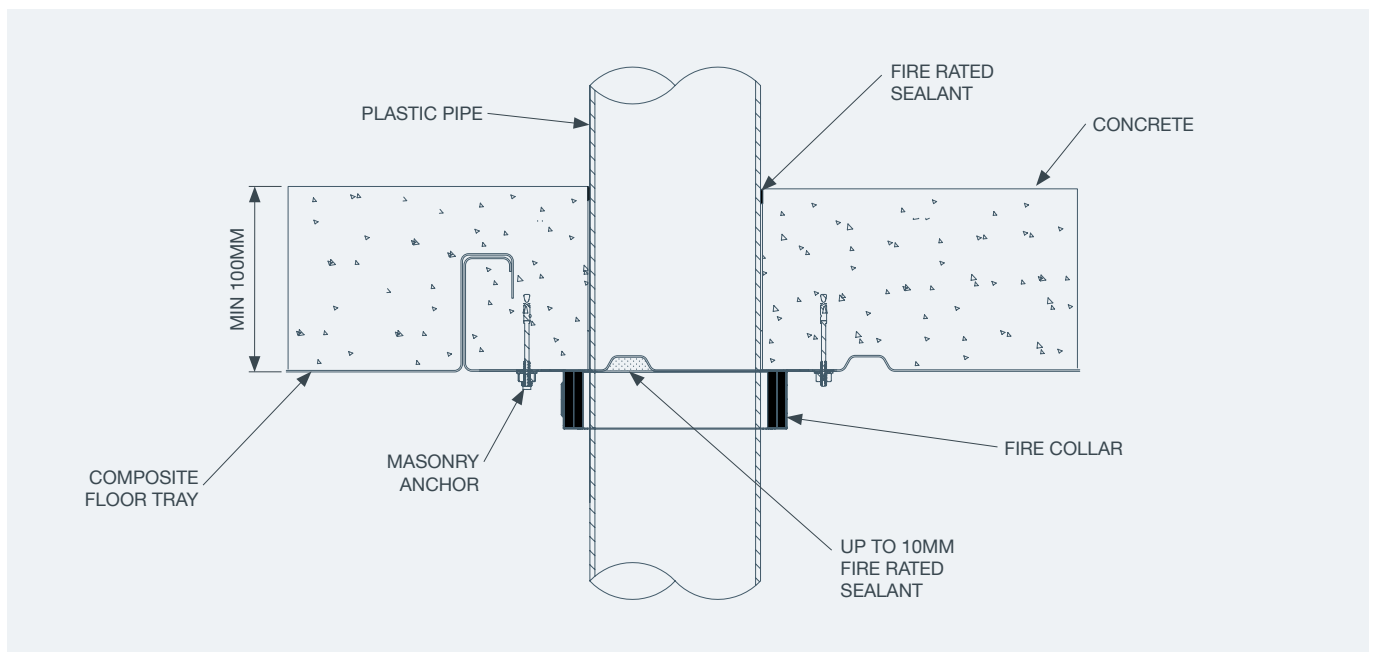


## COMPOSITE FLOOR TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>						
40	70	2.5	ALLFC40	52	-/60/60	13920-01
50	70	2.2	ALLFC50	57	-/60/60	13920-01
65	70	2.7	ALLFC65	72	-/60/60	13920-01
80	70	2.9	ALLFC80	87	-/60/60	13920-01
100	70	3.2	ALLFC100	118	-/60/60	13920-01
40	100	2.0	ALLFC40	47	-/120/120	13920-01
50	100	2.2	ALLFC50	57	-/120/120	13920-01
65	100	2.7	ALLFC65	72	-/120/120	13920-01
80	100	2.9	ALLFC80	87	-/120/120	13920-01
100	100	3.2	ALLFC100	112	-/120/120	13920-01
<b>PP-R PLASTIC PIPE (SDR 11)</b>						
32	70	3.5	ALLFC40	37	-/60/60	13920-01
32	100	3.5	ALLFC40	37	-/120/120	13920-01
<b>PEX PIPE</b>						
16	70	2.7	ALLFC25	28	-/60/60	11267

Fixing: Collars tested using M6x26 masonry anchors.

## COMPOSITE FLOOR INSTALLATION DETAILS:



Note: Collars can be installed on flat surfaces between the trough profiles in composite floors. Additionally intumescent sealant can be installed between tray and collar where profile changes up to 10mm. For any profile change greater than 10mm please refer to DIFC product selections.

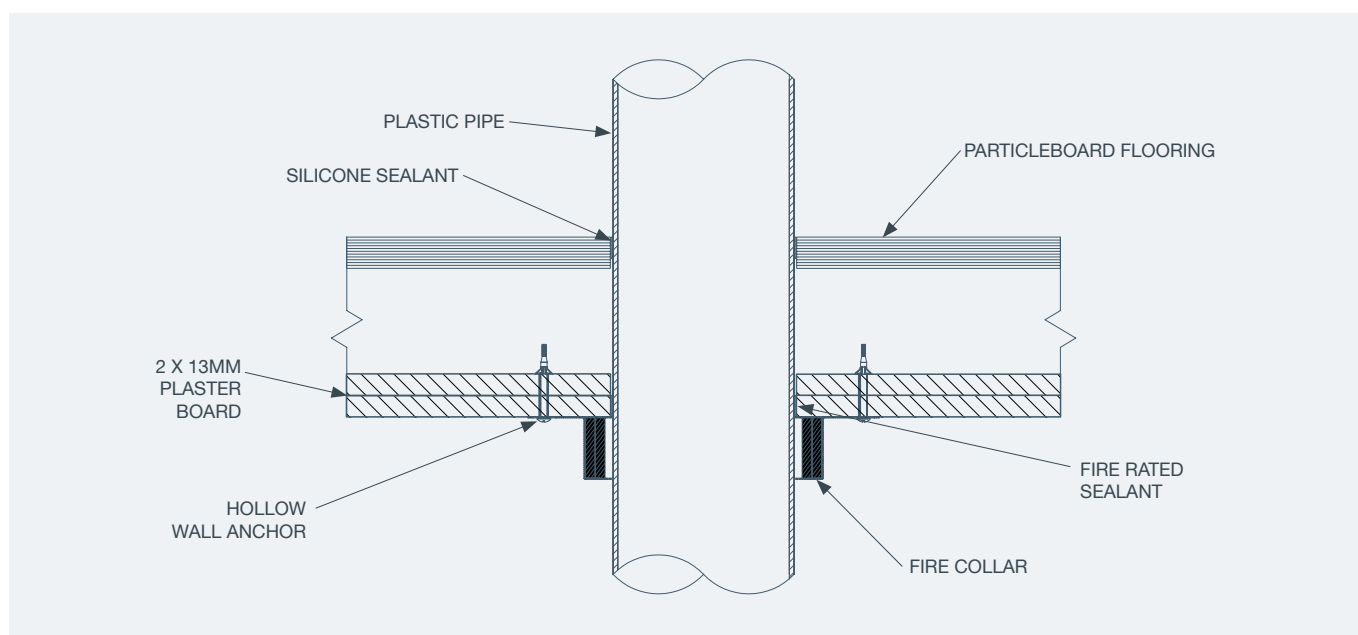
## 2 X 13MM PLASTERBOARD CEILING TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD CEILING FRL*	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
40	2.0	ALLFC40	55	-/90/90	190268.1
50	2.5	ALLFC50	70	-/90/90	190268.1
65	2.7	ALLFC65	76	-/90/90	210371
80	2.9	ALLFC80	89	-/90/90	210371
100	3.5	ALLFC100	110	-/90/90	190268.1
<b>PVC PLASTIC PIPE - WITH PVC SOCKETS</b>					
40	Socket	ALLFC40	51	-/90/90	142100
50	Socket	ALLFC50	70	-/90/90	210371
65	Socket	ALLFC65	76	-/90/90	210371
80	Socket	ALLFC80	89	-/90/90	210371
100	Socket	ALLFC100	114	-/90/90	142100
<b>POLYBUTE</b>					
15	1.9	ALLFC25	19	-/90/90	142100
20	2.1	ALLFC25	25	-/90/90	142100
28	3.0	ALLFC25	32	-/90/90	142100
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>					
20	2.8	ALLFC25	25	-/90/90	142100
<b>PP-R PLASTIC PIPE (SDR 11)</b>					
32	3.2	ALLFC40	40	-/90/90	190268.1
<b>PEX PIPE</b>					
16	2.4	ALLFC25	24	-/90/90	190268.1
20	2.8	ALLFC25	25	-/90/90	142100
25	3.5	ALLFC25	28	-/90/90	142100

Fixing: Collars tested using hollow wall anchors

\* Tested using a 190mm deep timber framing with two layers of 13mm fire rated plasterboard on the exposed side of the frame and 19mm particleboard flooring on the unexposed side of the frame. A total floor-ceiling thickness of 235mm. Fire collars are fixed using hollow board anchors directly into plasterboard - not fixed into framing or studs. Intumescent sealant is applied in the space between the pipe and plasterboard on the exposed face and silicone sealant between the pipe and particleboard flooring on the unexposed face.

## PLASTERBOARD CEILING INSTALLATION DETAILS:



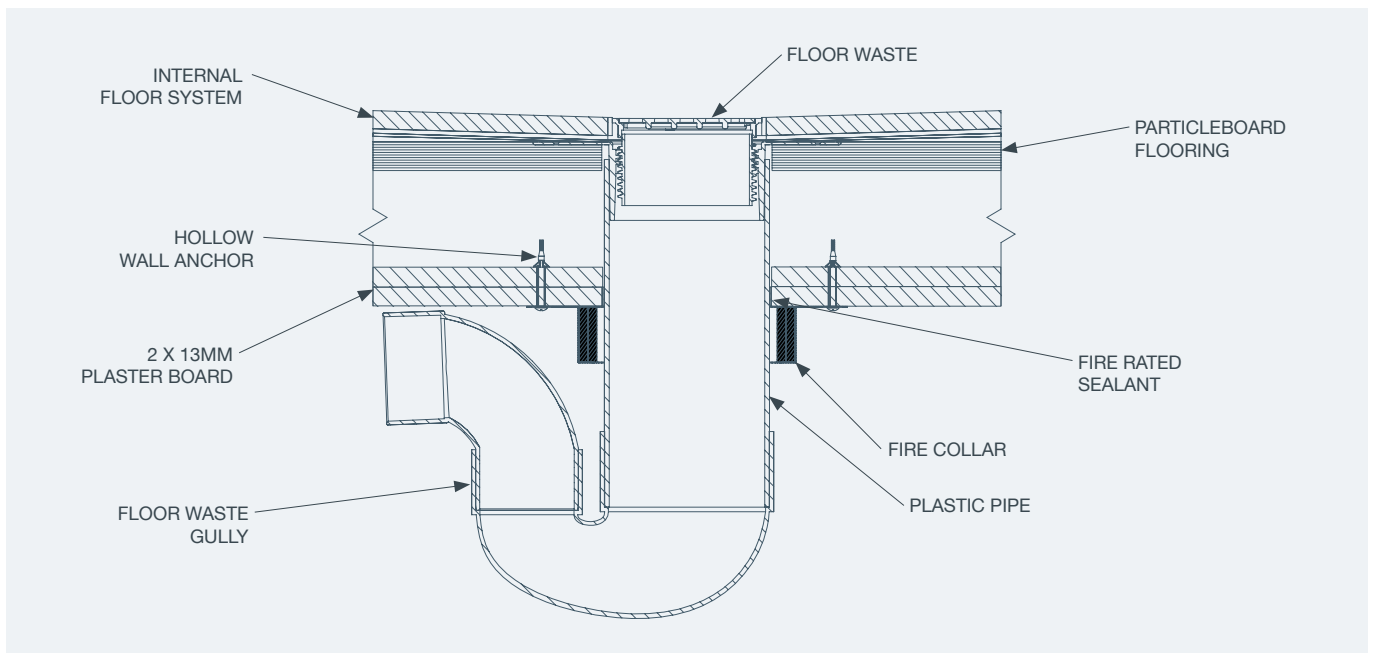
## 2 X 13MM PLASTERBOARD CEILING FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD CEILING FRL*	REPORT NUMBER
PVC PLASTIC PIPE					
100	3.5	ALLFC100	110	-/90/0	190268.1

Fixing: Collars tested using M4x8mm hollow wall anchors

\* Tested using a 190mm deep timber framing with two layers of 13mm fire rated plasterboard on the exposed side of the frame and 19mm particleboard flooring on the unexposed side of the frame. A total floor-ceiling thickness of 235mm. Fire collars are fixed using hollow board anchors directly into plasterboard - not fixed into framing or studs. Intumescent sealant is applied in the space between the pipe and plasterboard on the exposed face and silicone sealant between the flange and particleboard flooring on the unexposed face.

### PLASTERBOARD CEILING INSTALLATION DETAILS:



# 13MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
25	2.1	ALLFC25	30	-/60/60	13509
40	2.0	ALLFC40	47	-/60/45	143281-001
50	2.2	ALLFC50	57	-/60/60	5572
65	2.7	ALLFC65	72	-/60/60	5810
80	2.9	ALLFC80	87	-/60/60	5572
100	3.2	ALLFC100	112	-/60/60	5810
<b>PVC PLASTIC PIPE - WITH SOCKET</b>					
40	Socket	ALLFC40	48	-/60/45	180434.3
50	Socket	ALLFC50	62	-/60/45	180434.3
100	Socket	ALLFC100	117	-/60/60	180434.3
<b>POLYBUTE</b>					
12	1.9	ALLFC25	16	-/60/30	190057
15	1.6	ALLFC25	20	-/60/30	190057
20	2.1	ALLFC25	25	-/60/45	190057
28	3.0	ALLFC25	32	-/60/60	190057
<b>PEX PIPE</b>					
16	2.6	ALLFC25	19	-/60/60	143281-001
20	2.9	ALLFC25	25	-/60/60	143281-001
25	3.5	ALLFC25	30	-/60/60	13509
<b>RAUPIANO PP-MD</b>					
40	1.8	ALLFC40	47	-/60/45	143281-001
50	1.8	ALLFC50	57	-/60/45	143281-001
100	2.7	ALLFC100	117	-/60/60	143281-001
<b>D BLUE PP-MD</b>					
50	1.3	ALLFC50	57	-/90/60	180355.1
75	1.3	ALLFC80	86	-/90/60	180355.1
110	2.2	ALLFC100	121	-/90/60	180355.1
<b>PE-RT/AL/PE-RT</b>					
16	2.2	ALLFC25	20	-/60/45	190083
20	2.2	ALLFC25	25	-/60/45	190083
25	2.7	ALLFC25	29	-/60/45	190083
32	3.1	ALLFC40	38	-/60/45	190083
40	4.3	ALLFC40	44	-/60/0	190083
<b>OTHER PLASTIC PIPE</b>					
25 PP-R (SDR 11)	2.3	ALLFC25	29	-/60/45	143281-001
32 PP-R (SDR 11)	2.9	ALLFC40	38	-/60/60	13509
16 PEX/AL/PEX	2.0	ALLFC25	19	-/60/45	5810
20 PEX/AL/PEX	3.1	ALLFC25	25	-/60/45	5810
20 PEX/AL/PE	2.9	ALLFC25	30	-/60/60	13509
<b>PLASTIC PIPE - IN WALL</b>					
40 PVC	2.0	ALLFC40	70	-/60/45	143281-001
20 PEX	2.9	ALLFC25	45	-/60/45	5572
25 PP-R	4.0	ALLFC25	45	-/60/45	5572

\* Tested using a 64mm wide steel stud with a single layer of 13mm fire rated plasterboard on each side of the frame. A total wall thickness of 90mm. Fire collars are fixed using hollow wall anchors directly into plasterboard - not fixed into framing or studs in wall. Intumescent sealant is applied in the space between the pipe and plasterboard on both the exposed and unexposed face.



## STANDARD NON-FIRE RATED 13MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
PVC PLASTIC PIPE					
40	2.5	ALLFC40	52	-/30/30	13088
50	2.5	ALLFC50	67	-/30/30	13088
80	3.1	ALLFC80	92	-/30/30	13088
100	3.5	ALLFC100	117	-/30/30	13088
PVC PLASTIC PIPE - IN-WALL					
40	2.4	ALLFC40	70	-/30/30	13088
OTHER PLASTIC PIPE					
20 PEX	3.2	ALLFC25	25	-/30/30	13088
20 PB	2.4	ALLFC25	25	-/30/30	13088
32 PP-R (SDR 11)	3.7	ALLFC40	38	-/30/30	13088

\* Tested using a 64mm wide steel stud with a single layer of 13mm standard non-fire rated plasterboard on each side of the frame. A total wall thickness of 90mm. Fire collars are fixed using 8mm diameter x 10-16mm 416 hollow wall anchors directly into plasterboard - not fixed into framing or studs in wall. Intumescent sealant is applied in the space between the pipe and plasterboard on both the exposed and unexposed face.

## 16MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
PVC PLASTIC PIPE					
40	2	ALLFC40	47	-/90/60	200379
PEX PIPE					
16	2	ALLFC25	19	-/90/60	200379
20	3	ALLFC25	25	-/90/60	200379
25	4	ALLFC25	30	-/90/60	200379
PEX PIPE - IN WALL					
16	2	ALLFC25	45	-/90/90	200379
20	3	ALLFC25	45	-/90/60	200379
25	4	ALLFC25	45	-/90/90	200379
OTHER PLASTIC PIPE - IN WALL					
25 PEX/AL/PE	4	ALLFC25	30	-/90/60	200379

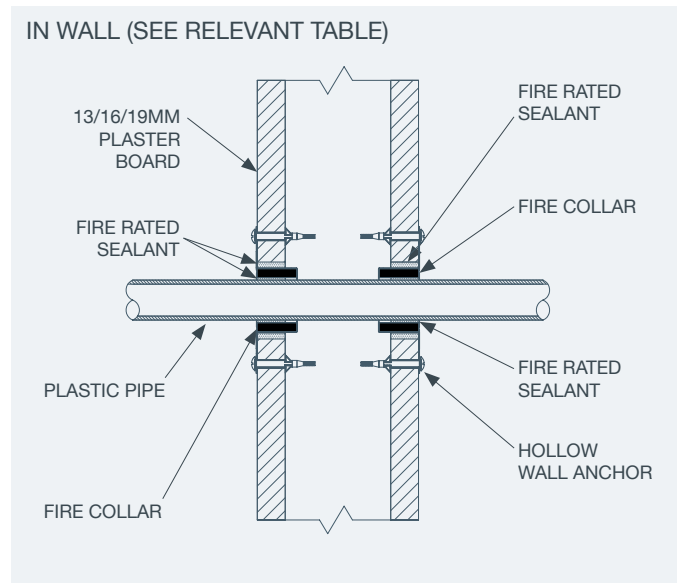
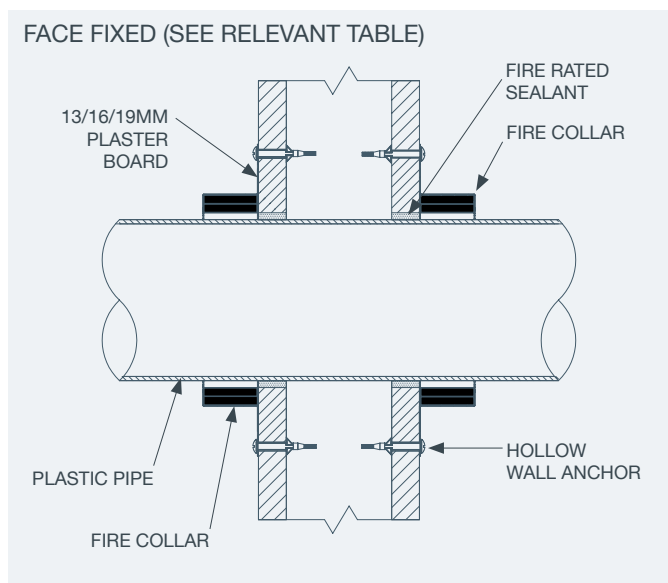
\* Tested using a 64mm wide steel stud with a single layer of 16mm fire rated plasterboard on each side of the frame. A total wall thickness of 96mm. Fire collars are fixed using M8 hollow wall anchors to suit 10-16mm plasterboard- not fixed into framing or studs in wall. Intumescent sealant is applied in the space between the pipe and plasterboard on both the exposed and unexposed face.

# 19MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
40	2.0	ALLFC40	47	-/120/90	4041
50	2.2	ALLFC50	57	-/120/90	3808
65	2.7	ALLFC65	72	-/120/90	4373
80	2.9	ALLFC80	87	-/120/90	4041
100	3.2	ALLFC100	112	-/120/90	4466
150	4.5	ALLFC150	162	-/90/60	4289
<b>HDPE PLASTIC PIPE</b>					
50	3.0	ALLFC50	52	-/120/120	4466
75	3.0	ALLFC80	77	-/120/90	4373
110	4.3	ALLFC100	112	-/120/90	4466
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>					
40	5.5	ALLFC40	42	-/120/90	4373
50	6.9	ALLFC50	52	-/120/90	4373
63	8.6	ALLFC65	65	-/90/90	4584
75	10.3	ALLFC80	77	-/90/30	4584
110	15.1	ALLFC100	112	-/30/30	4584
<b>PLASTIC PIPE - IN WALL</b>					
40 PVC	2.2	ALLFC40	70	-/120/90	4101
100 PVC	3.3	ALLFC100	150	-/45/45	4101
25 PP-R (SDR 7.4)	3.7	ALLFC25	45	-/120/90	4101
25 PEX	3.7	ALLFC25	45	-/120/90	4101
22 PB	2.2	ALLFC25	45	-/120/90	4101

\* Tested using a 92mm wide steel stud with a single layer of 19mm fire rated plasterboard on each side of the frame. A total wall thickness of 130mm. Fire collars are fixed using hollow wall anchors directly into plasterboard - not fixed into framing or studs in wall. 25mm fire collars tested in the wall penetration not exposed outside of wall.

## 13/16/19MM PLASTERBOARD INSTALLATION DETAILS:



## 2 X 13MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
PEX PIPE					
16	2.6	ALLFC25	19	-/120/120	44185300.1
20	2.9	ALLFC25	25	-/120/120	44185300.1
25	3.7	ALLFC25	28	-/120/120	44185300.1

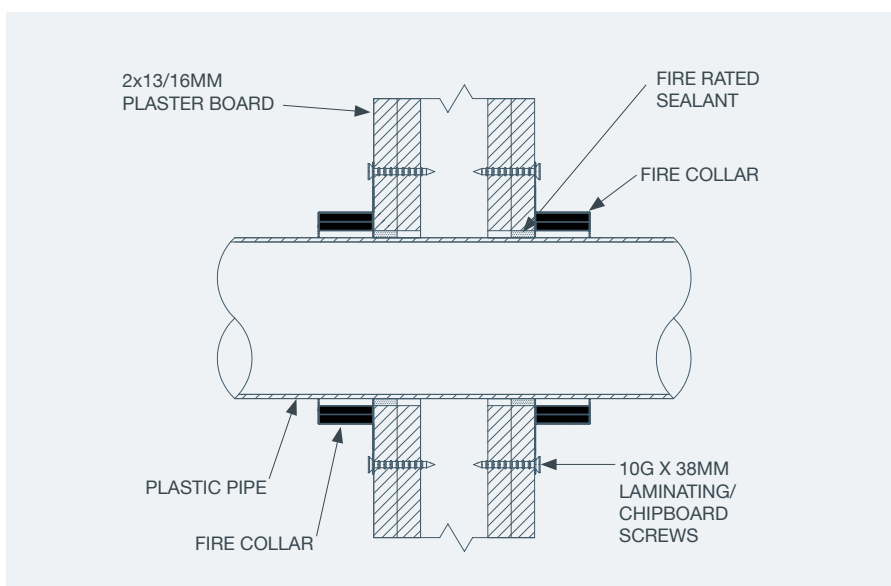
\* Tested using a 64mm wide steel stud with a single layer of 2 x 13mm fire rated plasterboard on each side of the frame. A total wall thickness of 116mm. Fire collars are fixed using 2 x 10G x 38mm laminating or chipboard screws directly into plasterboard - not fixed into framing or studs in wall. Intumescent sealant is applied in the space between the pipe and plasterboard on both the exposed and unexposed face.

## 2 X 16MM PLASTERBOARD WALL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
PVC PLASTIC PIPE					
40	2.0	ALLFC40	47	-/120/120	5680
50	2.2	ALLFC50	57	-/120/120	5680
65	2.7	ALLFC65	72	-/120/120	5680
80	2.9	ALLFC80	87	-/120/120	5680
100	3.2	ALLFC100	112	-/120/120	5680
PEX PIPE					
16	2.6	ALLFC25	19	-/120/120	5680
OTHER PLASTIC PIPE					
20 PEX/AL/PEX	3.1	ALLFC25	25	-/120/120	5680

\* Tested using a 64mm wide steel stud with a single layer of 2 x 16mm fire rated plasterboard on each side of the frame. A total wall thickness of 128mm. Fire collars are fixed using 10G x 40mm laminating or chipboard screws directly into plasterboard - not fixed into framing or studs in wall. Intumescent sealant is applied in the space between the pipe and plasterboard on both the exposed and unexposed face.

## 2 X 13/16MM PLASTERBOARD INSTALLATION DETAILS:



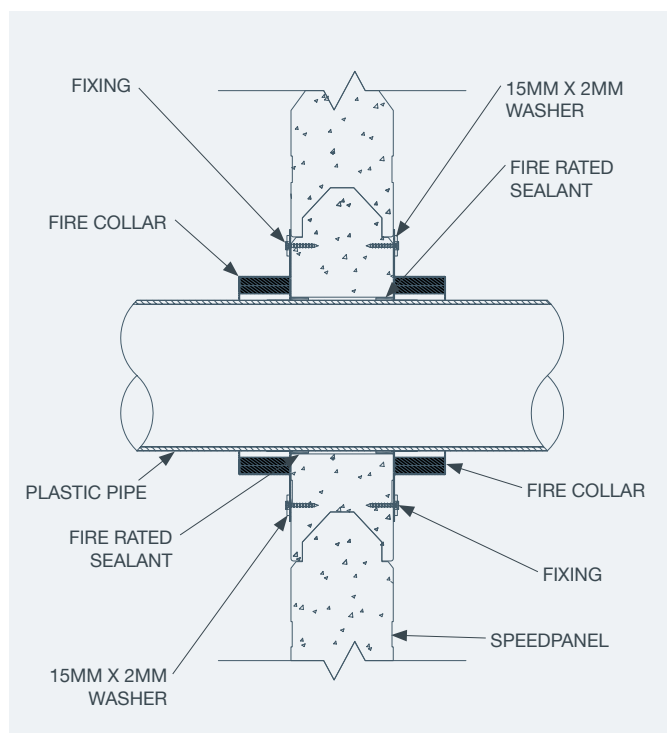
## SPEEDPANEL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>						
50	78	2.3	ALLFC50	63	-/120/120	190283.1
100	78	3.0	ALLFC100	114	-/120/120	190283.1
150	78	4.2	ALLFC150	165	-/120/90	190283.1
<b>HDPE PLASTIC PIPE</b>						
50	78	3.0	ALLFC50	60	-/120/90	190283.1
110	78	4.3	ALLFC100	114	-/120/90	190283.1

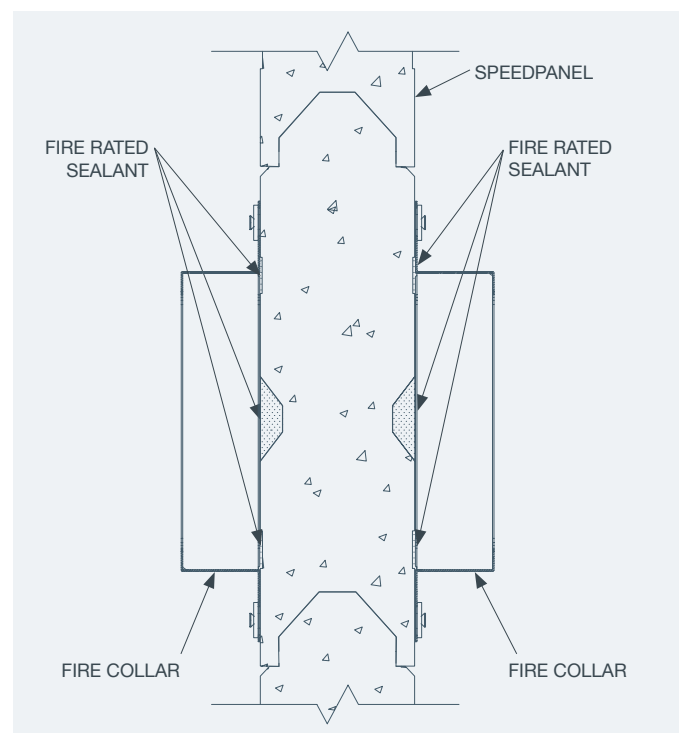
Fixing: Collars tested using 10G x 38mm needle point screws with Ø15mm x 2mm thick washers.

Note: Intumescent sealant installed between Speedpanel and collar where profile changes (see 'Profile Detail').

### SPEEDPANEL INSTALLATION DETAILS:



### SPEEDPANEL PROFILE DETAIL:



# SPEEDPANEL WITH PLASTERBOARD PATCH TEST RESULTS:

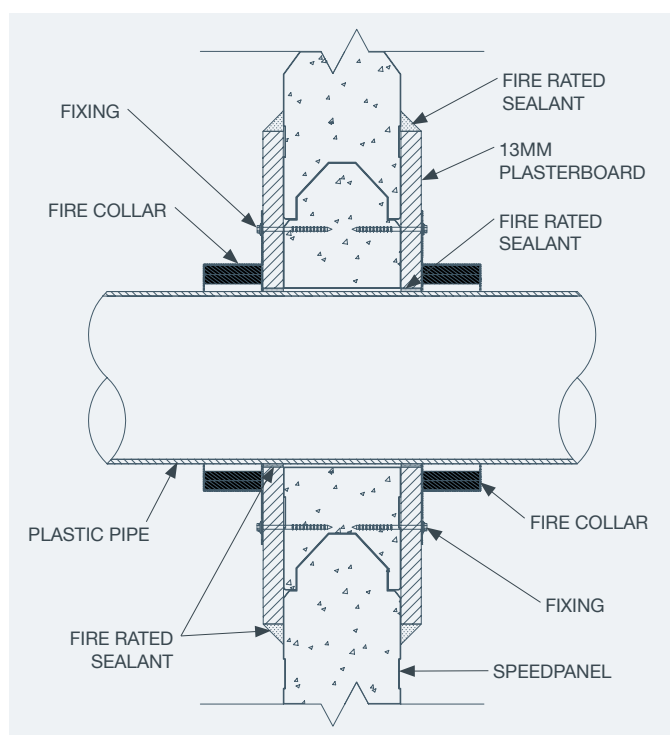
NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	PLASTER-BOARD (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>							
40	78	13	2.0	ALLFC40	44	-/120/120	180434.4
50	78	13	2.3	ALLFC50	54	-/120/120	180434.4
65	78	13	2.7	ALLFC65	70	-/120/120	180434.4
80	78	13	2.9	ALLFC80	85	-/120/120	180434.4
100	78	13	3.0	ALLFC100	111	-/120/120	180434.4
<b>PEX PIPE</b>							
16	78	13	2.6	ALLFC25	19	-/120/120	180434.4
20	78	13	2.9	ALLFC25	25	-/120/120	180434.4
25	78	13	3.7	ALLFC25	28	-/120/120	180434.4
<b>OTHER PLASTIC PIPE</b>							
20 PEX/AL/PEX	78	13	3.1	ALLFC25	25	-/120/120	180434.4

Fixing: 14-10 x 65mm hex head type 17 screws.

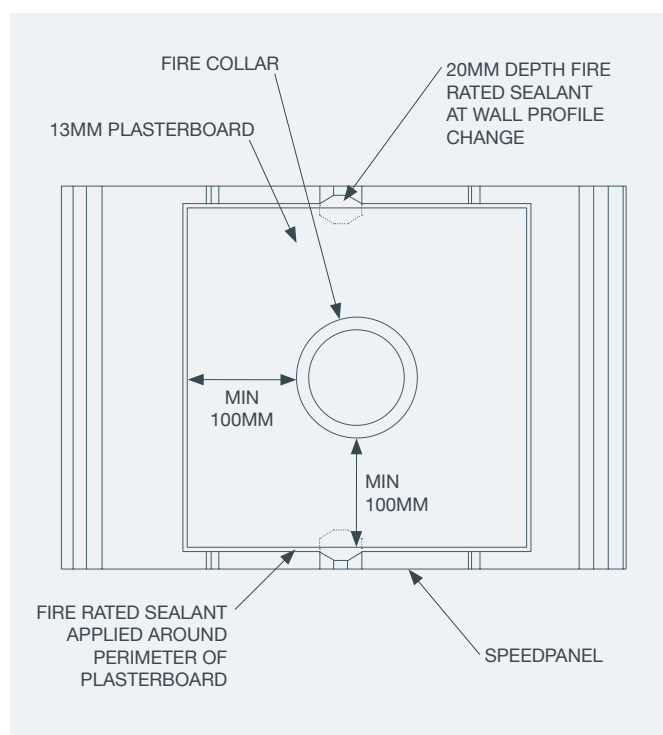
Intumescent sealant installed around edge and between Speedpanel and plasterboard where profile changes (see 'Front Detail' below)

Note: Plasterboard patch to be a minimum 100mm length in each direction from the edge of the collar.

## SPEEDPANEL WITH PLASTERBOARD PATCH INSTALLATION DETAILS:



## SPEEDPANEL WITH PLASTERBOARD PATCH FRONT DETAIL:



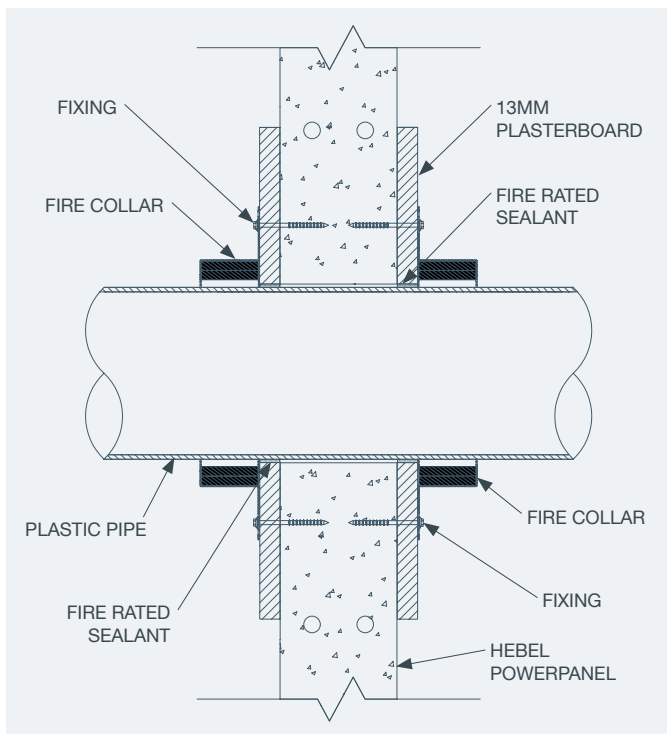
# HEBEL POWERPANEL WITH PLASTERBOARD PATCH TEST RESULTS:

NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	PLASTER-BOARD (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>							
40	75	13	2.0	ALLFC40	47	-/120/120	180434.4
50	75	13	2.2	ALLFC50	57	-/120/120	180434.4
65	75	13	2.7	ALLFC65	72	-/120/120	180434.4
80	75	13	2.9	ALLFC80	87	-/120/120	180434.4
100	75	13	3.2	ALLFC100	112	-/120/120	180434.4
<b>PEX PIPE</b>							
16	75	13	2.6	ALLFC25	19	-/120/120	180434.4
20	75	13	2.9	ALLFC25	25	-/120/120	180434.4
25	75	13	3.7	ALLFC25	28	-/120/120	180434.4
<b>OTHER PLASTIC PIPE</b>							
20 PEX/AL/PEX	75	13	3.1	ALLFC25	25	-/120/120	180434.4

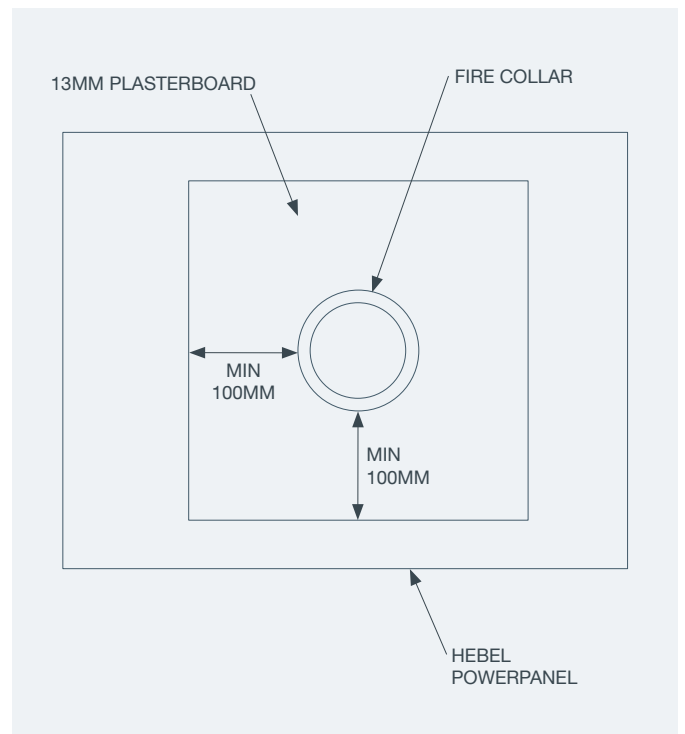
Fixing: 14-10 x 65mm hex head type 17 screws.

Note: Plasterboard patch to be a minimum 100mm length in each direction from the edge of the collar.

## HEBEL POWERPANEL WITH PLASTERBOARD PATCH INSTALLATION DETAILS:

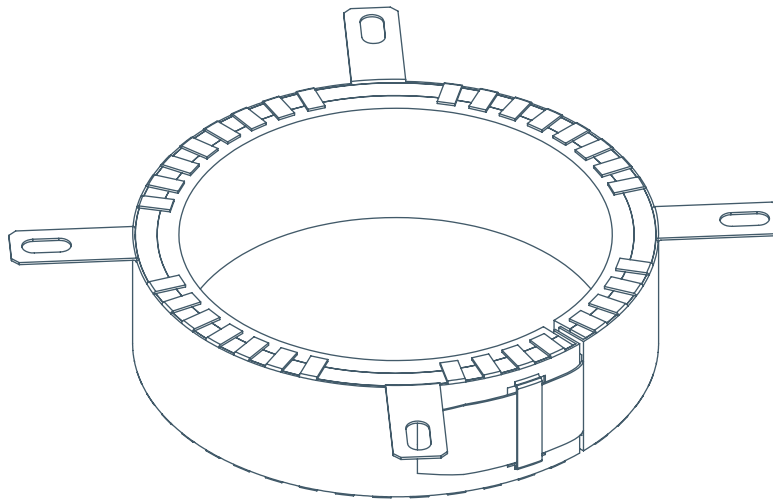
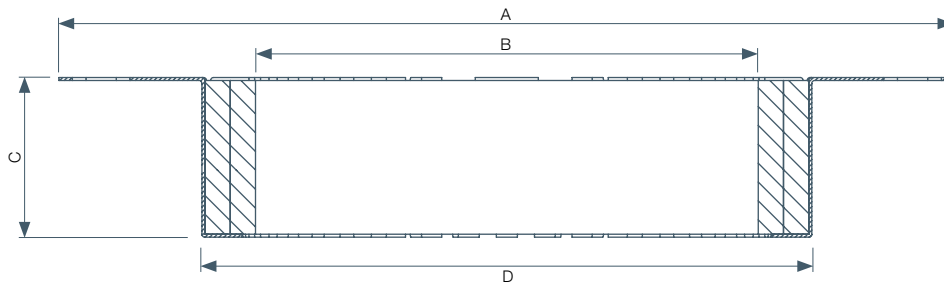


## HEBEL POWERPANEL WITH PLASTERBOARD PATCH FRONT DETAIL:



# PIPE COLLAR DIMENSIONS

CODE	NOM. PIPE DIAMETER	OUTSIDE DIAMETER (A)	INSIDE DIAMETER (B)	COLLAR HEIGHT (C)	COLLAR DIAMETER (D)	# OF FIXING TABS
ALLFC25GALV	25mm	100mm	31mm	28mm	44mm	2
ALLFC40SS ALLFC40GALV	40mm	121mm	50mm	28mm	63mm	2
ALLFC50SS ALLFC50GALV	50mm	122mm	63mm	28mm	88mm	3
ALLFC65SS ALLFC65GALV	65mm	136mm	77mm	28mm	102mm	3
ALLFC80SS ALLFC80GALV	80mm	154mm	95mm	28mm	120mm	3
ALLFC100SS ALLFC100GALV	100mm	213mm	120mm	38mm	145mm	4
ALLFC150SS ALLFC150GALV	150mm	258mm	165mm	54mm	190mm	6
ALLFC250SS	225mm	370mm	253mm	102mm	292mm	6





**ALLPROOF**  
WATERPROOFING  
MEMBRANE  
FOR  
CONCRETE  
AND  
MASONRY  
SURFACES  
APPLY TO ALL  
VERTICAL AND  
HORIZONTAL  
SURFACES  
BEFORE  
FINISHING

**ALLPROOF**  
WATERPROOFING  
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FOR  
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VERTICAL AND  
HORIZONTAL  
SURFACES  
BEFORE  
FINISHING



# CAST-IN COLLARS

Allproof Cast In Fire Collars are designed to reduce the labour content of passive fire rating plumbing pipe penetrations on concrete floors that are poured on site. Simply fix the base to the formwork on site and the plumbing pipe penetration is located complete with passive fire protection. This eliminates the need for core drilling of penetrations after the floor is poured and retro fitting a fire collar or wrap. Once the floor is poured and formwork stripped, simply cut off the top of the Cast In Collar and install pipe.

## SUITABLE FOR FITTING WITHIN:

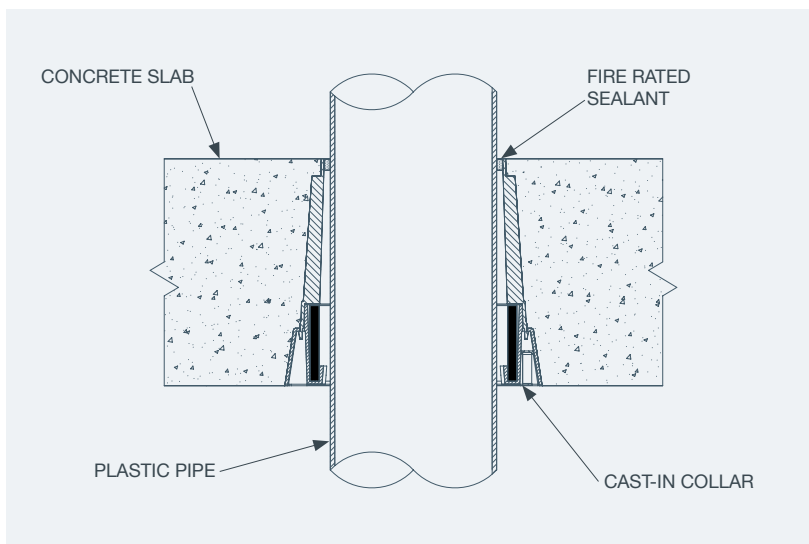
- Solid masonry floors

## FEATURES:

- 250mm overall height
- Sturdy construction for casting in
- Multiple fixing positions
- Made from recycled PP



## INSTALLATION DETAILS:



## INSTALLATION INSTRUCTIONS:

1. Fix to formwork in correct location.
2. Pour concrete floor.
3. Remove formwork ensuring galvanised steel ring is exposed.
4. Cut plastic collar to desired height.
5. Install pipework.
6. Seal gap between pipe and collar on top side of floor with intumescent sealant.
7. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.

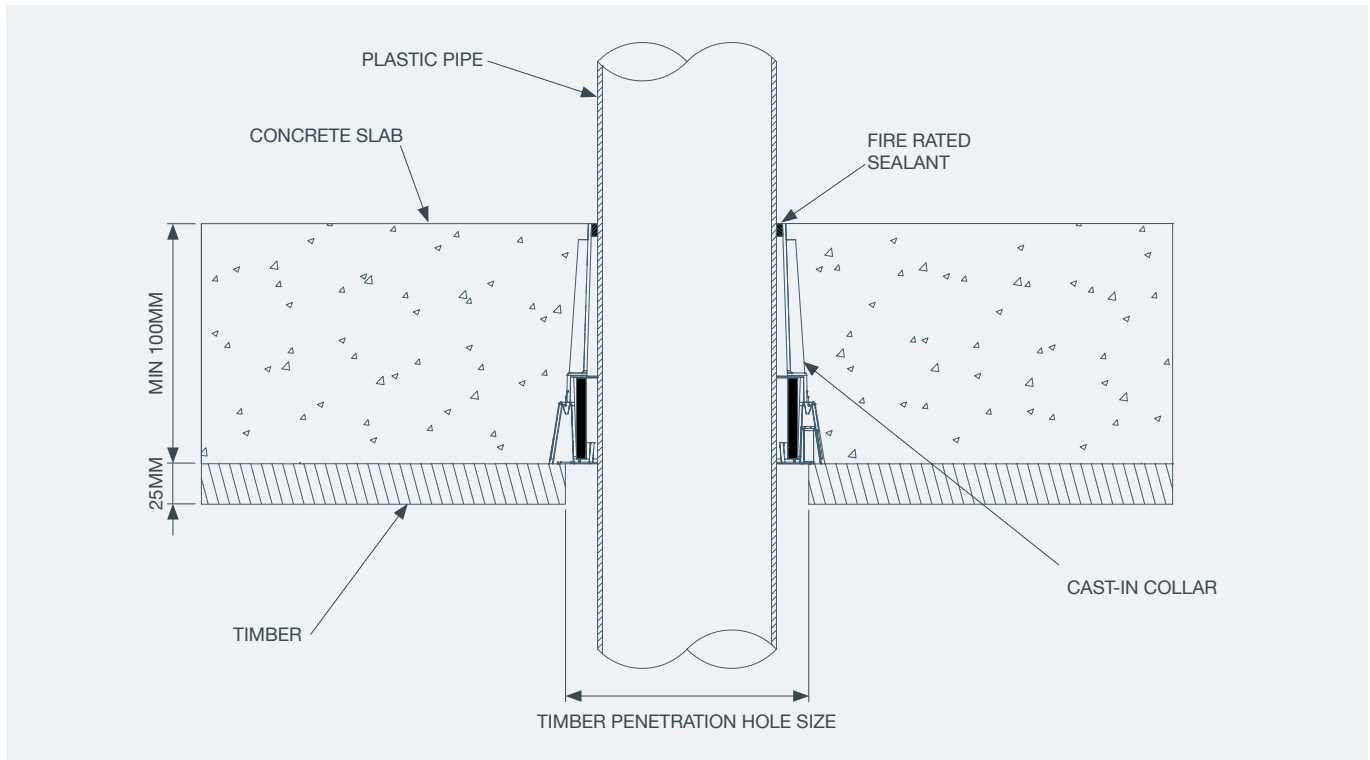
## CONCRETE SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
40	120	2.0	CIFC50S	-/180/180	5573
50	120	2.2	CIFC50S	-/240/180	5573
65	120	2.7	CIFC80S	-/240/180	5573
80	120	2.9	CIFC80S	-/240/180	5573
100	120	3.0	CIFC100S	-/240/180	13411
150	120	4.5	CIFC150S	-/180/120	45052500.2
<b>PVC PLASTIC PIPE - WITH SOCKET</b>					
40	120	Socket	CIFC50S	-/180/180	145535
50	120	Socket	CIFC50S	-/180/180	145535
65	120	Socket	CIFC80S	-/180/180	145535
80	120	Socket	CIFC80S	-/180/180	145535
100	120	Socket	CIFC100S	-/240/180	13411
<b>HDPE PLASTIC PIPE</b>					
40	120	3.0	CIFC50S	-/240/180	5573
50	120	3.0	CIFC50S	-/120/120	11057
56	120	3.0	CIFC50S	-/120/120	11057
63	120	3.0	CIFC80S	-/120/120	11057
75	120	3.0	CIFC80S	-/120/120	11057
90	120	3.5	CIFC100S	-/120/120	11057
110	120	4.3	CIFC100S	-/240/120	200098.1
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>					
40	120	5.5	CIFC50S	-/240/120	5573
110	120	15.1	CIFC100S	-/180/180	5573
<b>RAUPIANO PP-MD</b>					
40	120	1.8	CIFC50S	-/240/180	5573
50	120	1.8	CIFC50S	-/120/120	4466
75	120	1.9	CIFC80S	-/120/120	4466
110	120	2.7	CIFC100S	-/240/180	13411
<b>D-BLUE PP-MD</b>					
40	120	1.8	CIFC50S	-/120/120	4467
50	120	1.8	CIFC50S	-/240/180	5573
75	120	2.3	CIFC80S	-/120/120	4467
90	120	2.8	CIFC100S	-/120/120	4467
110	120	3.4	CIFC100S	-/240/180	13411

## RIB & TIMBER INFILL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	TIMBER PENETRATION HOLE SIZE (MM)	PRODUCT CODE	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>							
40	100	25	2.0	89	CIFC50S	-/90/90	145087-001
50	100	25	2.2	89	CIFC50S	-/120/120	145087-001
65	100	25	2.7	120	CIFC80S	-/120/120	145087-001
80	100	25	2.9	120	CIFC80S	-/120/120	145087-001
100	100	25	3.2	145	CIFC100S	-/90/90	145087-001
<b>RAUPIANO PP-MD</b>							
50	100	25	1.8	89	CIFC50S	-/120/120	145087-001

## RIB & TIMBER INFILL INSTALLATION DETAILS:



# LOW CAST-IN COLLARS



Allproof low cast-in collars are designed to suit 40-150mm PVC pipe penetrations. The low cast-in collar is installed in a similar manner to the standard cast-in collar. The main difference with the lowcast-in collar is that the pipe acts as the riser to the required height during the concrete pour. The pipe should be capped to prevent concrete entering the pipework during construction.

## SUITABLE FOR FITTING WITHIN:

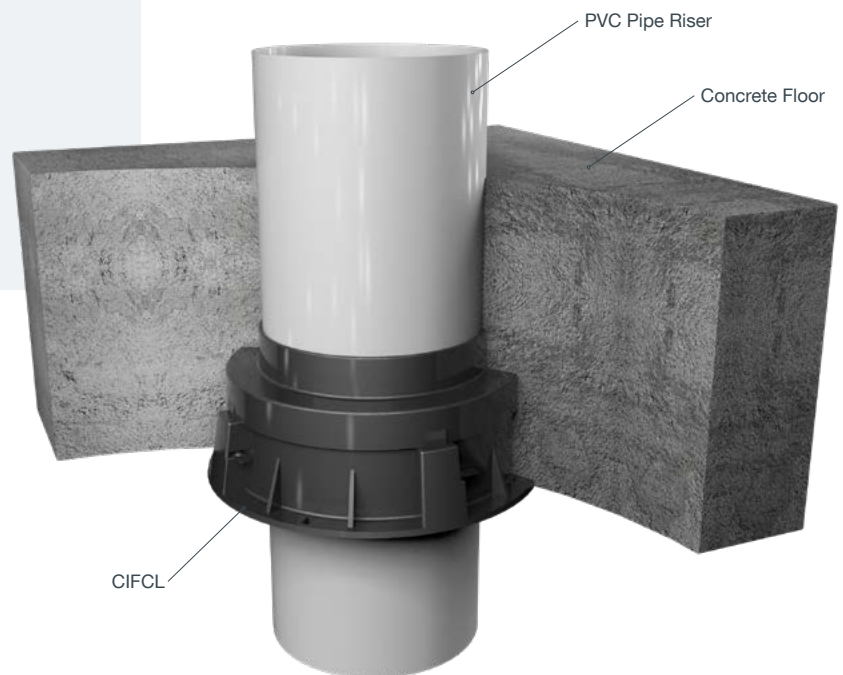
- Solid masonry floors

## FEATURES:

- Sturdy construction for casting in
- Multiple fixing positions
- Made from recycled PP

## INSTALLATION INSTRUCTIONS:

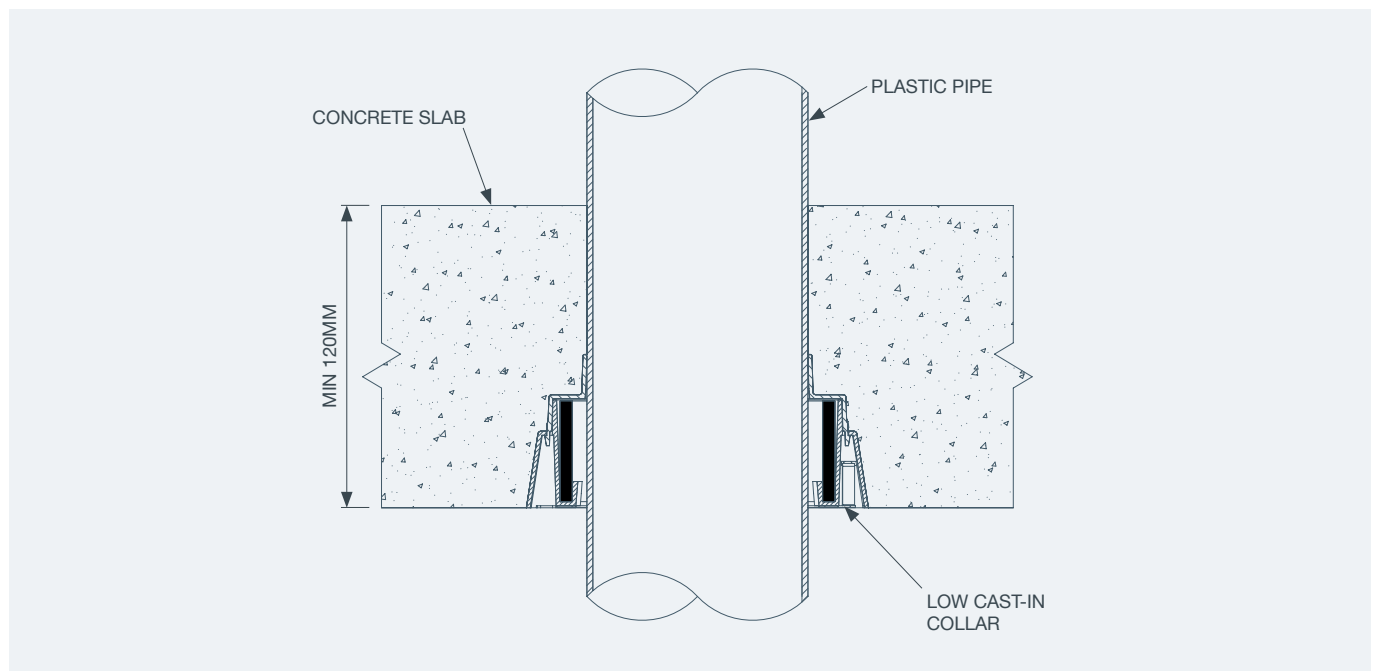
1. Fix collar to formwork in correct location.
2. Install pipe and cap.
3. Pour concrete floor.
4. Remove formwork ensuring galvanised steel ring is exposed.
5. Cut pipe to desired height.
6. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.



## LOW CAST-IN COLLAR TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
40	120	2.0	CIFC40S L	-/240/240	5573
50	120	2.2	CIFC50S L	-/240/180	5573
65	120	2.7	CIFC65S L	-/240/180	5573
80	120	2.9	CIFC80S L	-/240/180	5573
100	120	3.2	CIFC100S L	-/240/180	5573
150	150	4.5	CIFC150S L	-/120/120	145430
<b>PVC PLASTIC PIPE - WITH SOCKET</b>					
40	120	Socket	CIFC40S L	-/120/120	200399
50	120	Socket	CIFC50S L	-/120/120	200399
65	120	Socket	CIFC65S L	-/180/180	200399
80	120	Socket	CIFC80S L	-/180/120	200399
100	150	Socket	CIFC100S L	-/180/180	145430
<b>HDPE PLASTIC PIPE</b>					
110	120	4.3	CIFC100S L	-/240/180	5573
<b>RAUPIANO PP-MD</b>					
110	120	2.7	CIFC100S L	-/240/180	5573
<b>D-BLUE PP-MD</b>					
110	120	3.4	CIFC100S L	-/240/180	5573

## INSTALLATION DETAILS:



# CAST-IN FIRE RATED FLOOR WASTE KITS

Allproof cast-in floor waste collar kits provide a fully fire rated solution for floor waste penetrations.

## KIT INCLUDES:

- Cast In fire Collar (High or Low)
- Fire Rated Floor Waste System

## INSTALLATION INSTRUCTIONS:

1. Fix to formwork in correct location.
2. Pour concrete floor.
3. Remove formwork.
4. Cut plastic collar to desired height.
5. Install pipework and fire rated floor waste kit.
6. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.



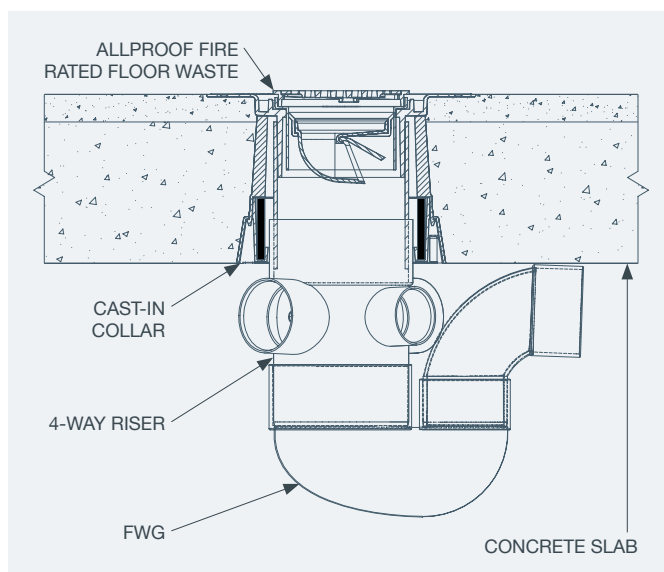
## SUITABLE FOR FITTING WITHIN:

- Solid masonry floors

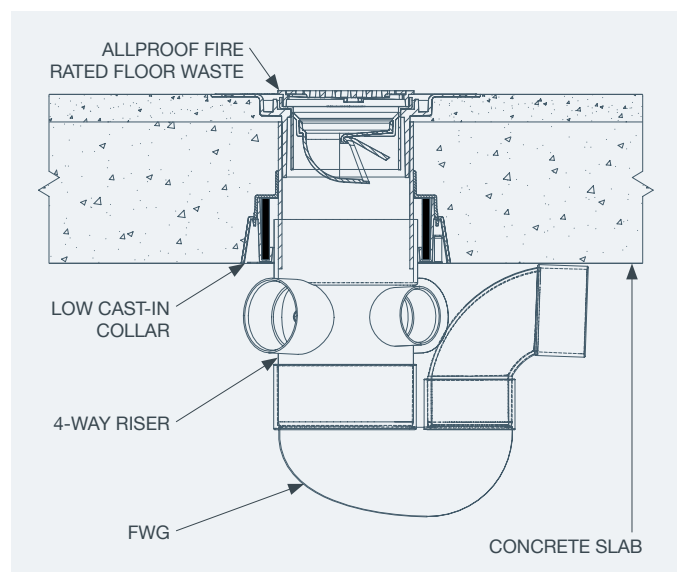
## FEATURES:

- Sturdy construction for casting in
- Multiple fixing positions
- Unique fire rated floor waste system

## CIFC FLOOR WASTE KIT INSTALLATION DETAILS:



## CIFCL FLOOR WASTE KIT INSTALLATION DETAILS:



# CAST-IN KIT TEST RESULTS:

All testing on 120mm thick concrete floor slab unless otherwise noted.

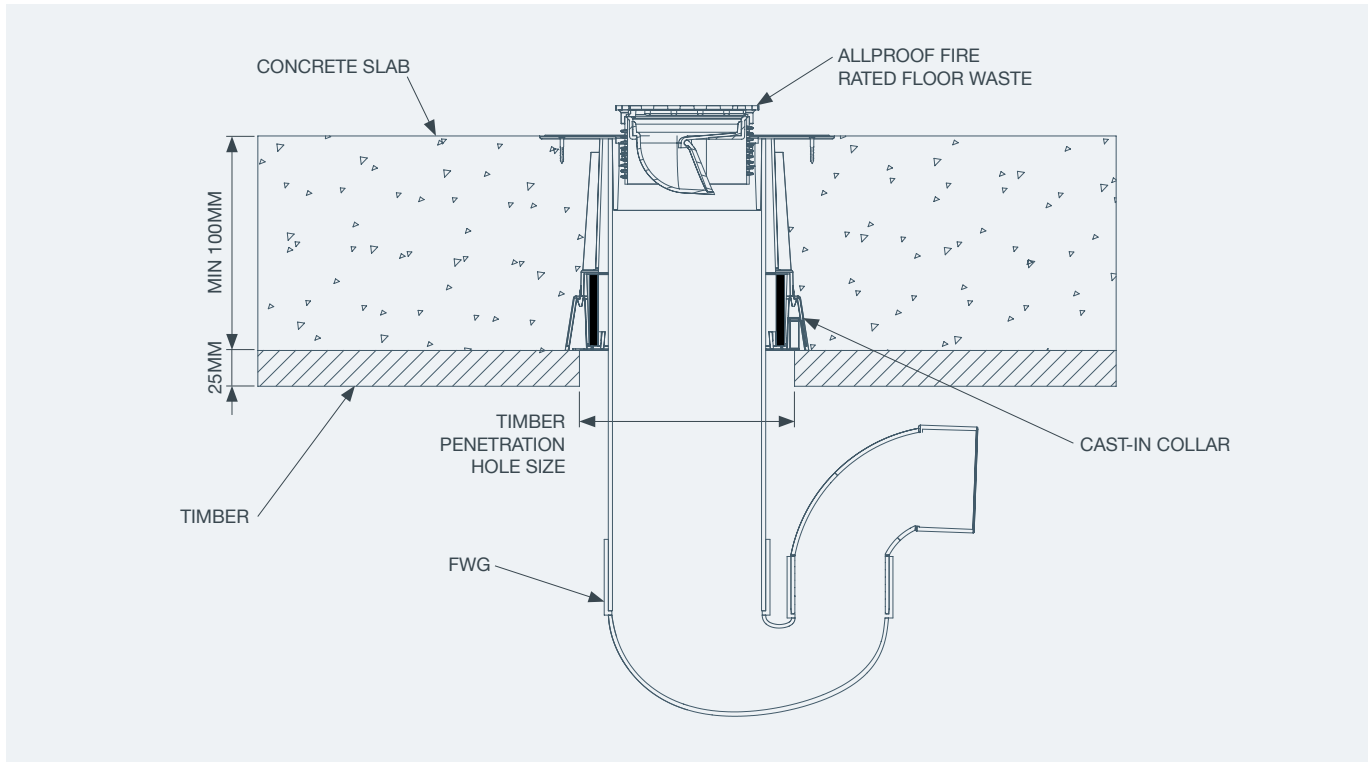
NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	FIRE PROTECTION PRODUCT	SOCKET*	FLOOR FRL	REPORT NUMBER
<b>CIFC WITH PVC PIPE SOCKET CONNECTIONS</b>					
80	80mm Socket	CIFC80S	50mm	-/240/240	5950
100	100mm Socket	CIFC100S	30mm	-/240/240	5950
<b>CIFCL WITH PVC PLASTIC PIPE</b>					
100	Pipe Only	CIFC100S	-	-/180/180	5950
<b>CIFCL WITH PVC PIPE SOCKET CONNECTIONS</b>					
80	80mm Socket	CIFC80S L	45mm	-/120/90	5950
100	100mm Socket	CIFC100S L	33mm	-/180/180	5950

\* Refers to the socket length within the fire collar

# RIB & TIMBER INFILL FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	TIMBER PENETRATION HOLE SIZE (MM)	FIRE PROTECTION PRODUCT	FLOOR FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>							
100	100	25	3.2	145	CIFC100S	-/120/120	145087-001

# RIB & TIMBER INFILL INSTALLATION DETAILS:



## CAST-IN KIT CODES:

CODE	DESCRIPTION
<b>80MM</b>	
CIFC80L FRTAG	80mm Low Cast-In Fire Collar and Fire Rated Tilt a Grate Floor Waste System
CIFC80L FRCYC	80mm Low Cast-In Fire Collar and Fire Rated Cyclone Floor Waste System
CIFC80 FRTAG	80mm High Cast-In Fire Collar and Fire Rated Tilt a Grate Floor Waste System
CIFC80 FRCYC	80mm High Cast-In Fire Collar and Fire Rated Cyclone Floor Waste System
<b>100MM</b>	
CIFC100L FRTAG	100mm Low Cast-In Fire Collar and Fire Rated Tilt a Grate Floor Waste System
CIFC100L FRCYC	100mm Low Cast-In Fire Collar and Fire Rated Cyclone Floor Waste System
CIFC100 FRTAG	100mm High Cast-In Fire Collar and Fire Rated Tilt a Grate Floor Waste System
CIFC100 FRCYC	100mm High Cast-In Fire Collar and Fire Rated Cyclone Floor Waste System

## KIT INCLUDES:



CIFC

Cast in Collar - High or Low



CIFCL

And



FRTAG

Fire Rated Tilt A Grate or Fire Rated Cyclone Floor Waste



FRCYC



# DROP IN FIRE COLLARS



Allproof Drop In Fire Collars (DIFC'S) provide a simple and effective passive fire rating option for thin concrete floors or trapezoidal steel tray concrete floors. These composite floors feature profile changes on the underside of the slab and make it difficult to fire rate with a conventional fire collar fixed to the underside of a floor slab.

## INSTALLATION INSTRUCTIONS:

1. Core drill hole to specified diameter to suit pipe size.
2. Install drop in fire collar fixing with two metal pin anchors. (Floor waste installs require the tabs to be recessed into the slab).
3. Ensure collar on underside of slab is exposed no greater than 80mm and recessed in slab no more than 5mm.
4. Insert pipework through collar.
5. Seal gaps between concrete/collar and collar/pipe with a minimum 5mm depth of Allproof MAS310 or Bostik Fireban One intumescent sealant.
6. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.

## SUITABLE FOR FITTING WITHIN:

- Thin concrete floors (minimum 70mm)
- Trapezoidal steel tray concrete floors (composite floors)

## FEATURES:

- Installed and fixed from top side of slab
- Can be retrofit around pipe
- Made from Galvanised steel



# DIFC COMPOSITE FLOOR AND FLAT SLAB ASSESSMENTS:

Allproof DIFCs have been tested and assessed to provide a passive fire protection system for composite floor and flat slab penetrations on a range of plumbing services. The assessment found that Allproof DIFCs FRL is equal to the FRL of composite floor with tray profiles on the underside of the slab ranging from 0mm to 210mm.

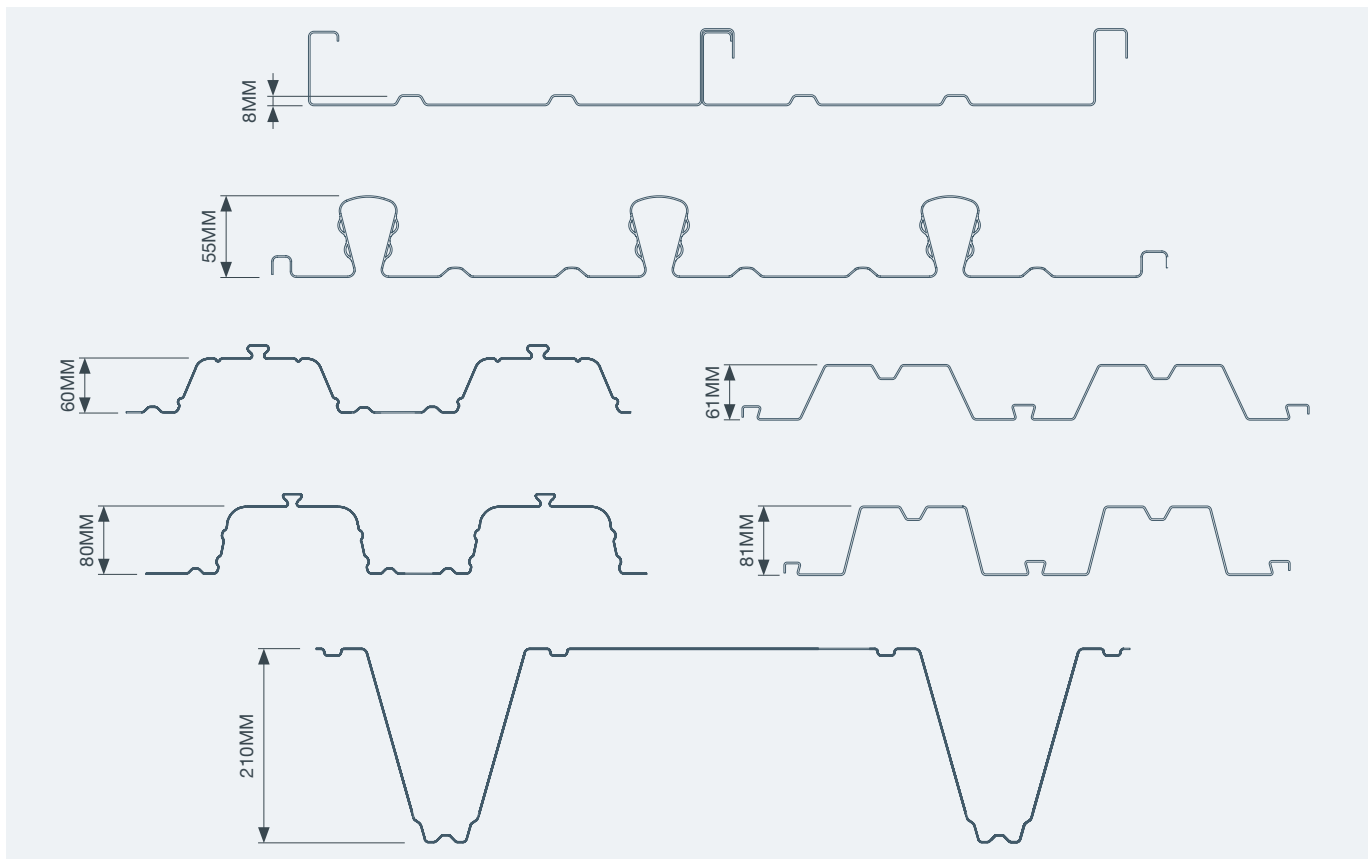
Tray and concrete slab FRL's are variable by adjusting the minimum depth at the shallowest section of the profile, refer to tray suppliers documentation for further information. Allproof DIFC's have been assessed to provide an FRL for a minimum depth of 70mm and minimum depth of 100mm at the shallowest section of the profile.

Reference assessment numbers 12424-03, 13920-01 and 12424-002 for stack and floor waste results.

PIPE MATERIAL	PIPE SIZES (MM)	DIFC PRODUCT	MIN DEPTH (MM)	FRL
PVC Stack	40, 50, 65, 80, 100 & 150	40, 50, 65, 80, 100 & 150	70	-/60/60
			100	-/120/120
PVC Stack (Socket Connection)	40, 50, 65, 80 & 100	40, 50, 65, 80 & 100	70	-/60/60
			100	-/120/120
PVC FWG	80 & 100	80 & 100	70	-/60/60
			100	-/120/120
HDPE Stack	40, 50, 80, 100 & 150	40, 50, 80, 100 & 150	70	-/60/60
			100	-/120/120
HDPE FWG	100	100	70	-/60/60
			100	-/120/120
D-Blue	50, 75, 100 & 150	50, 80, 100 & 150	70	-/60/60
			100	-/120/120
PP-R SDR9	32, 40, 110 & 125	32, 40, 100 & 125	70	-/60/60
			100	-/120/120
PP-R SDR11	32 & 40	32 & 40	70	-/60/60
			100	-/120/120

Socket Connection: Pipe socket connection located within aperture of DIFC.  
 Penetration Hole Sizes: See "DIFC COLLAR DIMENSIONS" on page 35.

## ASSESSED COMPOSITE FLOOR TRAY PROFILES



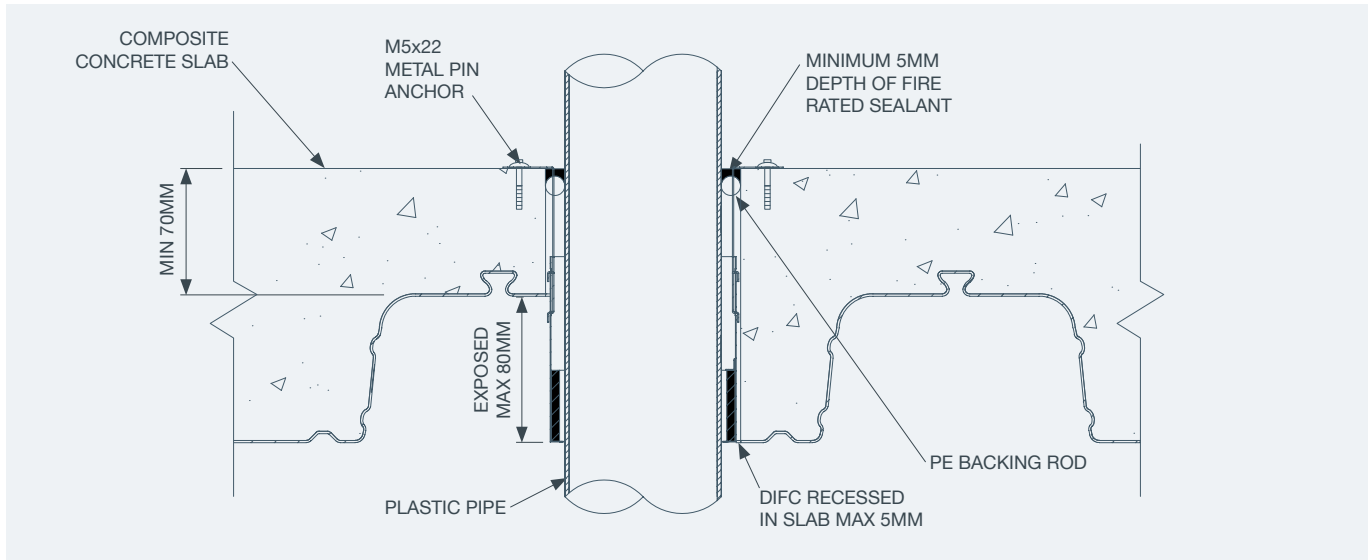
# DIFC COMPOSITE FLOOR TEST RESULTS:

Tests that fall outside the assessments for Allproof DIFC's.

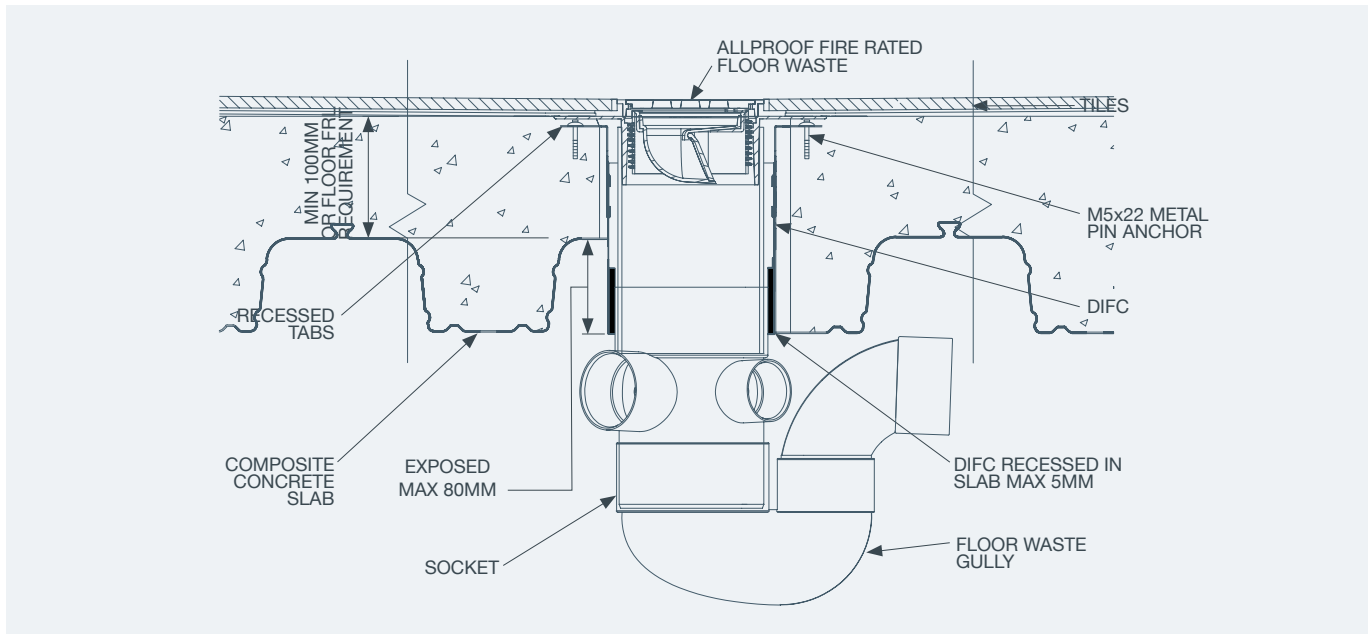
NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
OTHER PLASTIC PIPE						
16 PEX	70/130	2.2	DIFC32	57	-/120/120	143281-002
25 PEX	70/130	3.5	DIFC32	57	-/120/60	143281-002
15 PB	70/130	1.6	DIFC32	57	-/120/90	143281-002
28 PB	70/130	3.5	DIFC32	57	-/120/120	143281-002
25 PEX/AL/PE	70/130	2.5	DIFC32	57	-/120/60	143281-002

70/130 - Tested on a composite concrete floor with 70mm minimum thickness and 130mm maximum thickness. Profile change of 60mm.

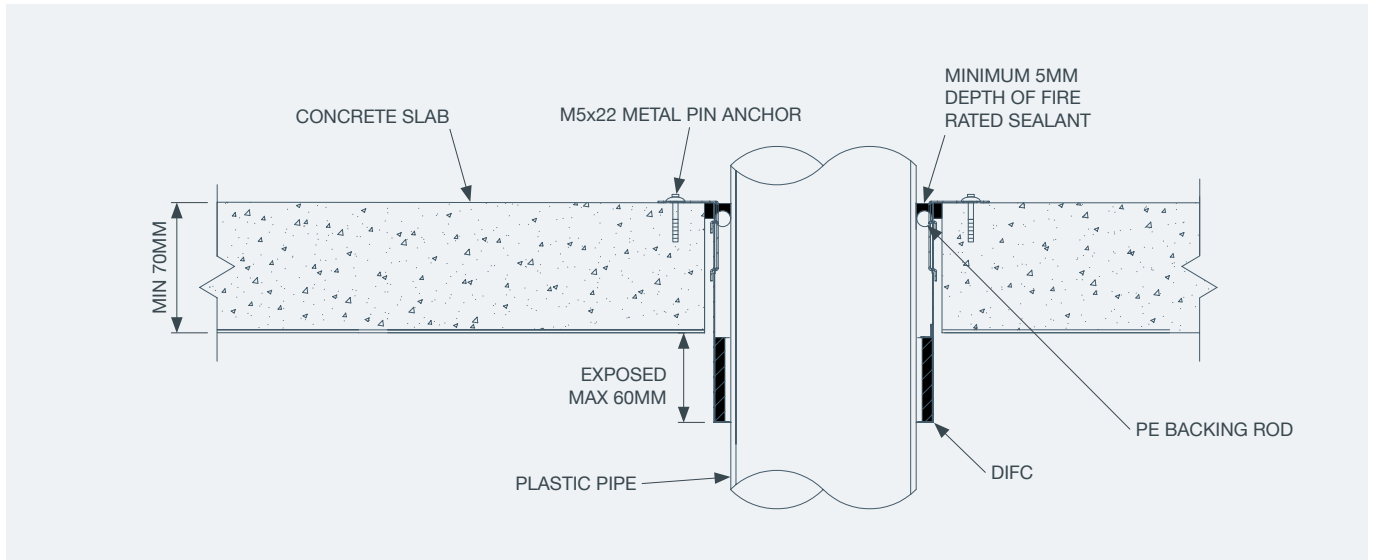
## COMPOSITE FLOOR INSTALLATION DETAILS:



## COMPOSITE FLOOR WASTE INSTALLATION DETAILS:



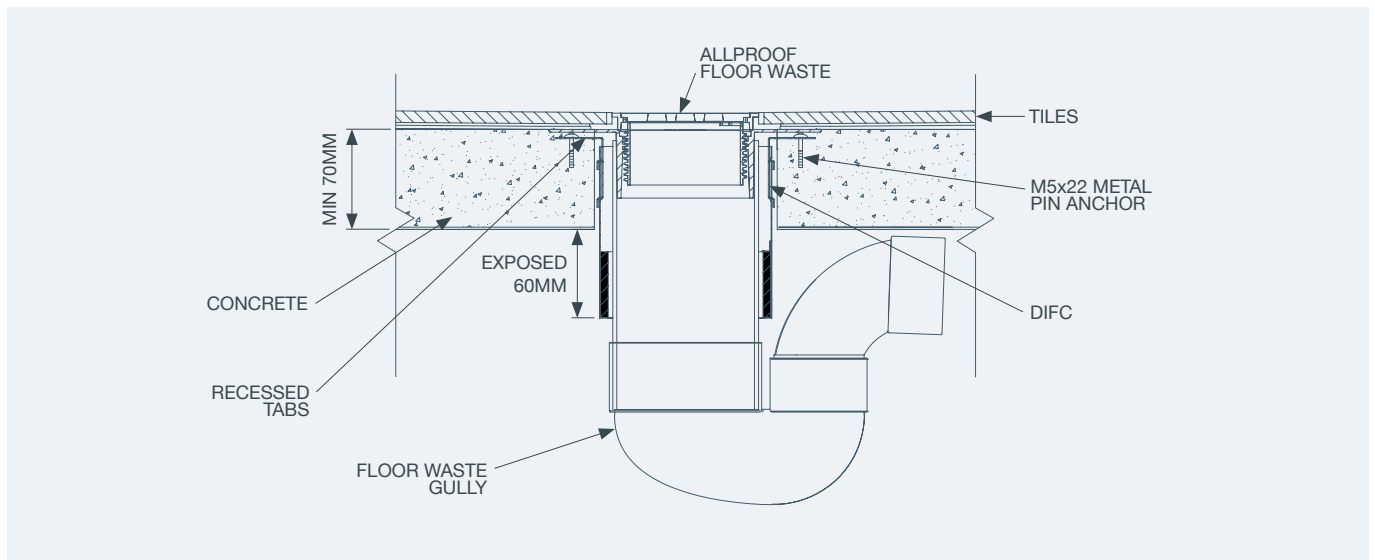
## FLAT SLAB INSTALLATION DETAILS:



## DIFC FLOOR WASTE FLAT SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	FIRE PROTECTION PRODUCT	SOCKET	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER
PVC PLASTIC PIPE							
80	70	2.9	DIFC80	No	112	-/120/120	10471
100	70	3.2	DIFC100	No	143	-/120/90	10471

## FLAT SLAB FLOOR WASTE INSTALLATION DETAILS:



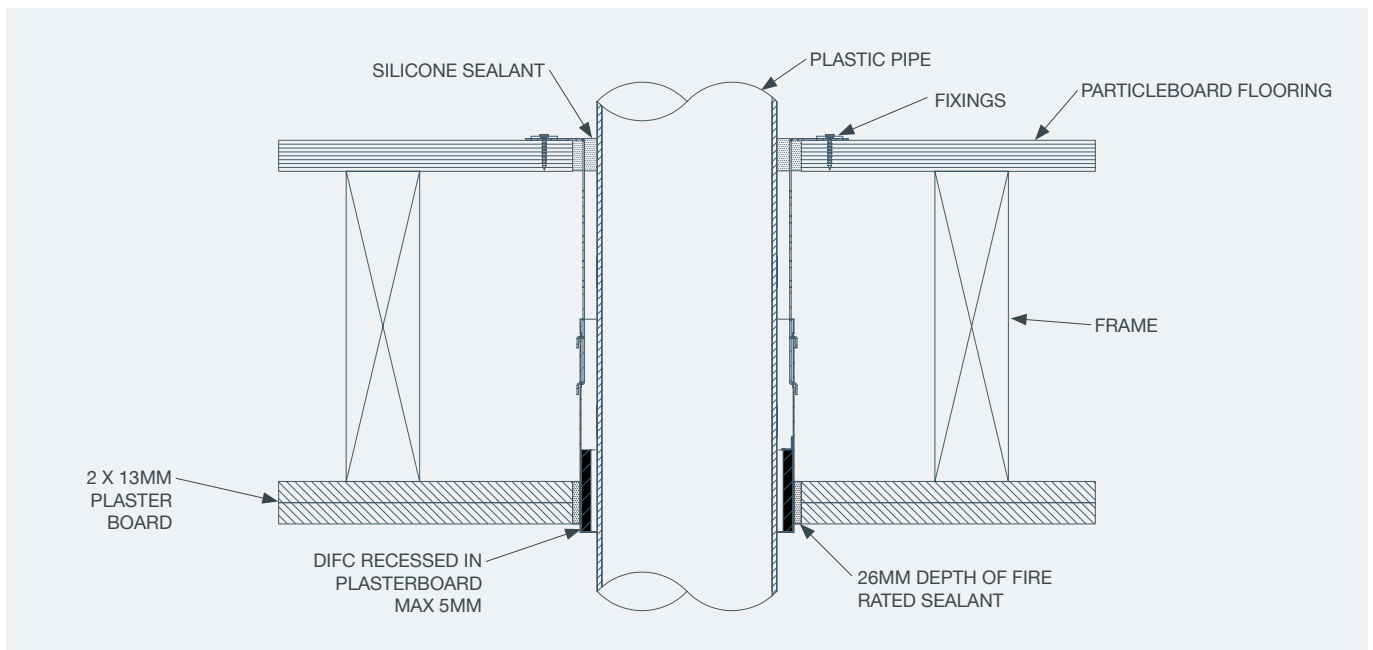
## 2 X 13MM PLASTERBOARD CEILING TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL	REPORT NUMBER
PVC PLASTIC PIPE					
40	2	DIFC40	78	-/90/90	190268.1
50	2.5	DIFC50	88	-/90/90	190268.1
100	3.5	DIFC100	140	-/90/90	190268.1

Fixing: 6G x 32mm Plasterboard screws

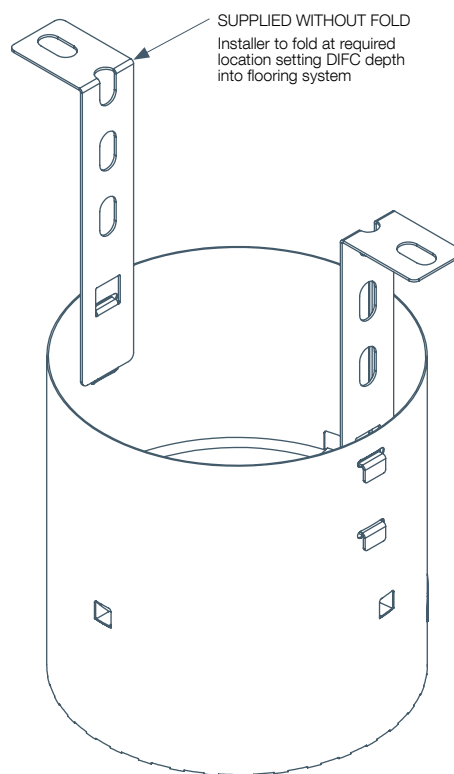
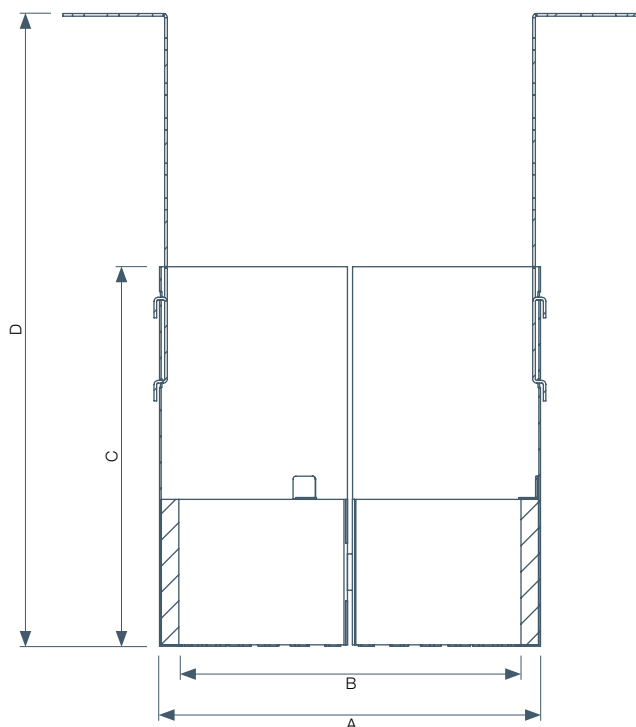
Tested using a 190mm deep timber framing with two layers of 13mm fire rated plasterboard on the exposed side of the frame and 19mm particleboard flooring on the unexposed side of the frame. A total floor-ceiling thickness of 235mm. DIFCs fixed using 6Gx32mm plasterboard screws with M6x16 washers into the particleboard flooring on the unexposed side - not fixed into framing or studs. DIFCs extended 5mm from face of the ceiling on the exposed side. Intumescent sealant is applied in the space between the DIFC and plasterboard at a depth of 26mm on the exposed face and silicone sealant between the pipe and particleboard flooring on the unexposed face.

## PLASTERBOARD CEILING INSTALLATION DETAILS:



## DIFC COLLAR DIMENSIONS:

CODE	CONCRETE PENETRATION HOLE SIZE (MM)	OUTER DIAMETER (A)	INNER DIAMETER (B)	CYLINDER LENGTH (C)	MIN - MAX DEPTH (D)
DIFC32 X210	57	48	35	130	130 - 210
DIFC40 X210	72	66	53	130	130 - 210
DIFC50 X210	86	79	66	130	130 - 210
DIFC65 X210	102	92	78	130	130 - 210
DIFC80 X210	112	106	92	130	130 - 210
DIFC100 X210	142	131	118	130	130 - 210
DIFC125 X210	162	154	133	130	130 - 210
DIFC150 X210	192	187	161	130	130 - 210



# PIPE WRAPS

Pipe wraps are designed to be installed in solid construction walls and floors and consist of a layer(s) of intumescent sealed in a polyethylene sleeve. The sleeve features a strip of double sided tape to enable easy installation.

When a fire occurs the intumescent seal is activated and expands into the penetration cavity as the burning plastic pipe melts. When the intumescent seal expands it forms a fire resistant plug in the penetration, preventing the spread of fire.

The pipe wrap is designed to have the ends of intumescent material meet around the circumference of the pipe. No overlap will exist, allowing pipe to be centrally located within a core hole. For pipe sizes up to 100mm, only one layer of intumescent material is required, ensuring core holes can be kept to a minimum size. Allproof pipe wraps have been tested on a variety of plastic pipes and are available in stock sizes from 40-150mm.



## SUITABLE FOR FITTING WITHIN:

- Concrete, masonry and porous concrete wall constructions
- Concrete floor construction
- Plasterboard penetrations (with Fireband)

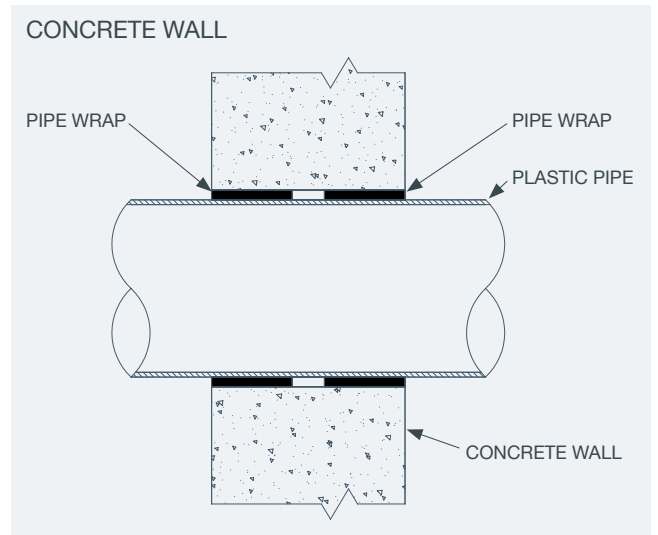
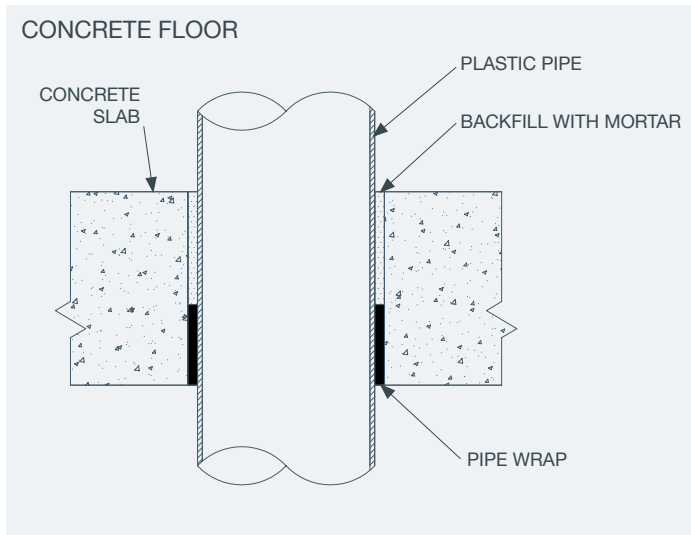
## FEATURES:

- Water resistant
- Advanced intumescent technology allows smaller core holes
- Simple to use - easy to install
- For use on various plastic pipes
- Removable “pipe wrap installed” label for pipe work/wall

## INSTALLATION INSTRUCTIONS:

1. Position fire wrap around circumference of pipe and remove backing from the self adhesive strip and join ends together.
2. Slide wrap into position ensuring wrap is located entirely within depth of the wall or floor. For floor applications, the wrap should be flush with the underside of the floor. For wall applications, two wraps are required - one from each side; each wrap should be flush with the outside wall.
3. If there is a space between the concrete and the outer side of the wrap and above the wrap, backfill the space with mortar.
4. The polyethylene sleeve can be removed and intumescent strip taped in place if the core hole is very tight.
5. For plasterboard wall applications, an Allproof Fireband must be used.

## CONCRETE INSTALLATION DETAILS:



## PIPE WRAP TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT	PENETRATION HOLE SIZE (MM)	FLOOR FRL	REPORT NUMBER	WALL FRL	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>								
40	150	2.0	FW40	62	-/120/120	3788	-/120/120	5957
50	150	2.2	FW50	72	-/120/120	3808	-/120/120	3808
65	150	2.7	FW65	87	-/180/180	3655	-/120/120	5956
80	150	2.9	FW80	102	-/120/120	3808	-/180/180	4211
100	150	3.2	FW100	127	-/120/120	3655	-/180/120	4211
150	150	4.5	FW150	192	-/90/90	4058	-/120/120	4836
<b>HDPE PLASTIC PIPE</b>								
50	150	3.0	FW50	67	-/120/120	4100	-/120/120	4836
56	150	3.0	FW50	73	-/120/120	11057		
63	150	3.0	FW65	80	-/120/120	11057		
75	150	3.0	FW65	92	-/120/120	4100		
90	150	3.5	FW100	107	-/120/120	11057		
110	150	4.3	FW100	127	-/120/120	4100		
150	120	6.2	FW150 + PR150*	192	-/180/180	5573		
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>								
40	150	5.5	FW40	57	-/120/120	4100	-/180/180	4211
75	150	10.3	FW80	92	-/120/120	4100	-/180/180	4211
110	150	15.1	FW100	127	-/120/120	4100	-/120/120	4836
125	150	17.1	FW125	152			-/180/180+	4211
<b>RAUPIANO PP-MD</b>								
40	120	1.8	FW40	57	-/120/120	5169		
50	120	1.8	FW50	67	-/120/120	5169		

\*0.9 Perforated ring fixed to underside of slab. Contact Allproof for details.  
+ 75mm Wide Double Layer Pipe Wrap Used.

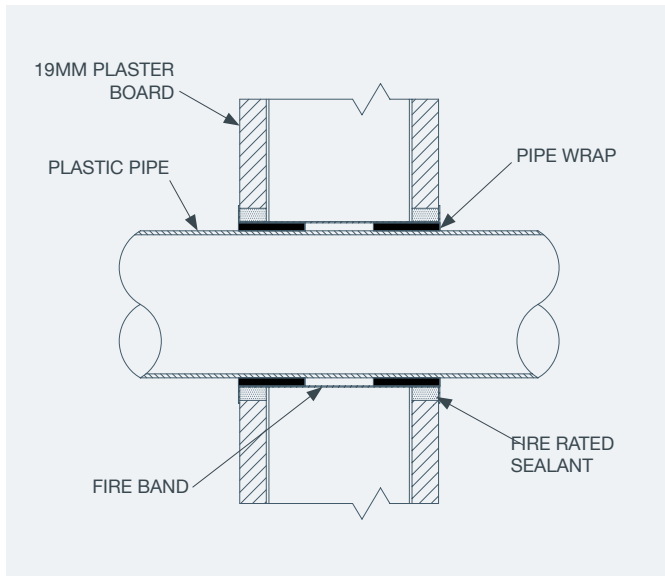


# FIRE BANDS

Designed for the fire protection of plasterboard walls penetrated by plastic pipes, Fire Bands are rolled galvanized steel sleeves with two slide tabs fixed through a corresponding slot and fold back tabs for fixing to the plasterboard. An Allproof pipe wrap is installed on each face of the plasterboard within the Fire Band. When a fire occurs the intumescent pipe wraps contained within the steel Fire Band activate, filling the band with a fire resistant seal.



## INSTALLATION DETAILS:



### SUITABLE FOR:

- Plasterboard wall penetrations

### FEATURES:

- Easy to use and install

## INSTALLATION INSTRUCTIONS:

1. Open fire band around pipe, slide tabs through slot and fold back 180° to secure. Slide into plasterboard wall penetration.
2. Install an Allproof pipe wrap on each face of the plasterboard wall (two per fire band).
3. Seal gap between the Fire Band and the plasterboard of both wall faces with intumescent sealant.

## PLASTERBOARD WALL TEST RESULTS:

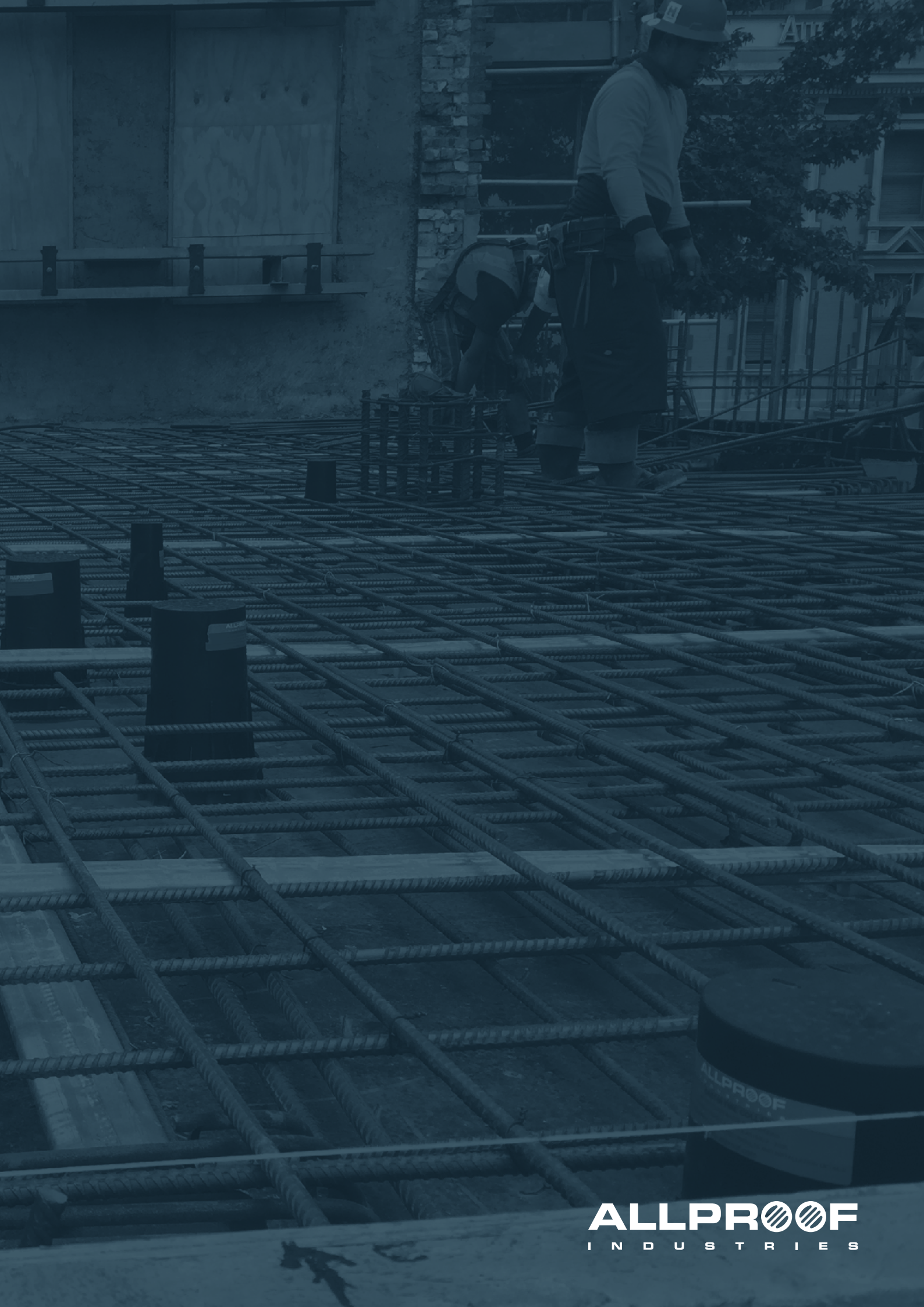
NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL*	REPORT NUMBER
<b>PVC PLASTIC PIPE</b>					
40	2.0	FB40+FW40	65	-/120/90	4041
65	2.7	FB65+FW65	90	-/120/90	4041
80	2.9	FB80+FW80	105	-/90/60	4289
100	3.2	FB100+FW100	130	-/90/90	4289
<b>HDPE PLASTIC PIPE</b>					
50	3.0	FB50+FW50	70	-/120/90	4466
75	3.0	FB75+FW75	95	-/120/90	4466
100	4.3	FB100+FW100	130	-/120/90	3808
<b>PP-R (SDR 7.4)</b>					
40	5.5	FB40+FW40	60	-/120/120	4584
63	8.6	FB65+FW65	83	-/120/90	4584
110	15.1	FB100+FW100	130	-/120/90	4584

\*Tested using a 92mm wide steel stud with a single layer of 19mm plasterboard on each side of the frame. A total wall thickness of 130mm. Intumescent sealant is applied in the space between the fire band and plasterboard on both the exposed and unexposed face.



**PASSIVE FIRE  
PRODUCTS DESIGNED  
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