

OCTOBER 2021

# PASSIVE FIRE PROTECTION SYSTEMS PLUMBING

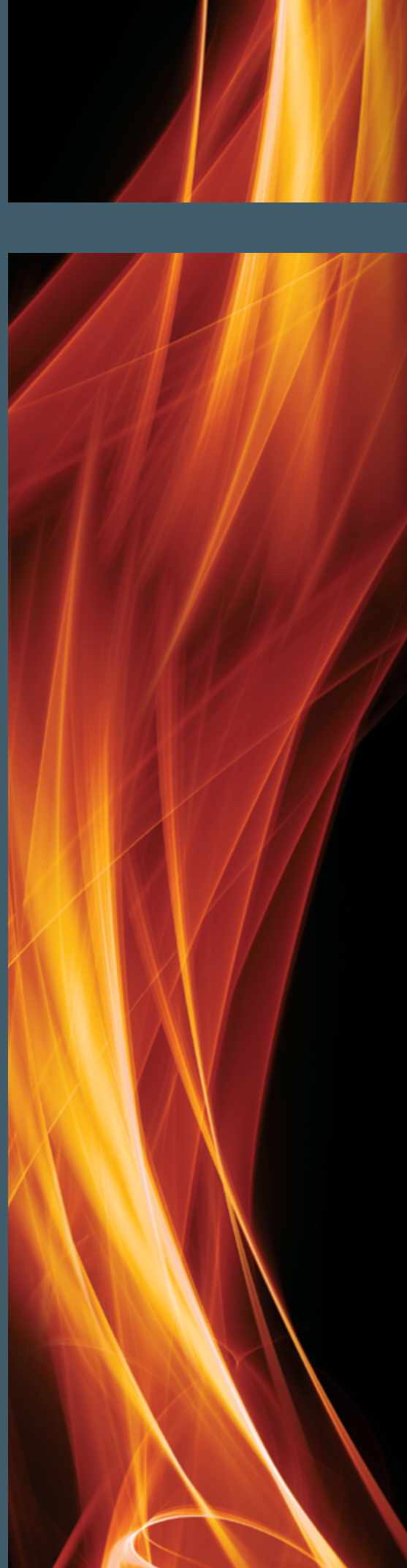


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# CONTENTS

<b>FIRE TESTING</b>	<b>1</b>
<b>ADVANCED INTUMESCENT</b>	<b>2</b>
<b>LOW PROFILE PIPE COLLARS</b>	<b>3</b>
CONCRETE SLAB TEST RESULTS:	4
CONCRETE SLAB FLOOR WASTE TEST RESULTS:	5
RIB & TIMBER INFILL TEST RESULTS:	6
RIB & TIMBER INFILL FLOOR WASTE TEST RESULTS:	6
HOLLOW CORE SLAB TEST RESULTS:	7
HOLLOW CORE SLAB FLOOR WASTE TEST RESULTS:	8
COMPOSITE FLOOR TEST RESULTS:	9
2 X 13MM PLASTERBOARD CEILING TEST RESULTS:	10
2 X 13MM PLASTERBOARD CEILING FLOOR WASTE TEST RESULTS:	11
13MM PLASTERBOARD WALL TEST RESULTS:	12
STANDARD 13MM PLASTERBOARD WALL TEST RESULTS:	13
16MM PLASTERBOARD WALL TEST RESULTS:	13
19MM PLASTERBOARD WALL TEST RESULTS:	14
2 X 13MM PLASTERBOARD WALL TEST RESULTS:	15
2 X 16MM PLASTERBOARD WALL TEST RESULTS:	15
SPEEDPANEL TEST RESULTS:	16
SPEEDPANEL WITH PLASTERBOARD PATCH TEST RESULTS:	17
HEBEL POWERPANEL WITH PLASTERBOARD PATCH TEST RESULTS:	18
<b>CAST-IN COLLARS</b>	<b>21</b>
CAST IN COLLAR TEST RESULTS:	22
<b>LOW CAST-IN COLLARS</b>	<b>23</b>
LOW CAST-IN COLLAR TEST RESULTS:	23
<b>CAST-IN FIRE RATED FLOOR WASTE KITS</b>	<b>24</b>
CAST-IN KIT TEST RESULTS:	25
<b>DROP IN FIRE COLLARS</b>	<b>26</b>
DIFC COMPOSITE FLOOR ASSESSMENT RESULTS:	27
DIFC COMPOSITE FLOOR WASTE ASSESSMENT RESULTS:	27
DIFC FLAT SLAB TEST RESULTS:	29
DIFC FLOOR WASTE FLAT SLAB TEST RESULTS:	29
2 X 13MM PLASTERBOARD CEILING TEST RESULTS:	30
<b>PIPE WRAPS</b>	<b>32</b>
PIPE WRAP TEST RESULTS:	33
<b>FIRE BANDS</b>	<b>34</b>
PLASTERBOARD WALL TEST RESULTS:	34



# WHAT IS THE BEST SOLUTION FOR ME?

## Installation

### Floor

### Wall

### Ceiling

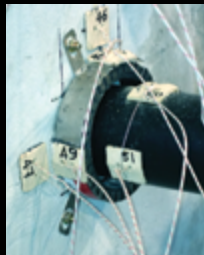
#### Pre Pour

#### Post Pour

#### Concrete

#### Plasterboard

#### Plasterboard



This document features current test results at time of print.  
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 or floors.

## 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 PIPE COLLARS

The low profile pipe collars are designed to be installed in concrete, masonry fire rated walls and floors, and fire rated plasterboard walls. The Allproof pipe 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 for the 25-80mm pipe collars.

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.

Pipe 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.



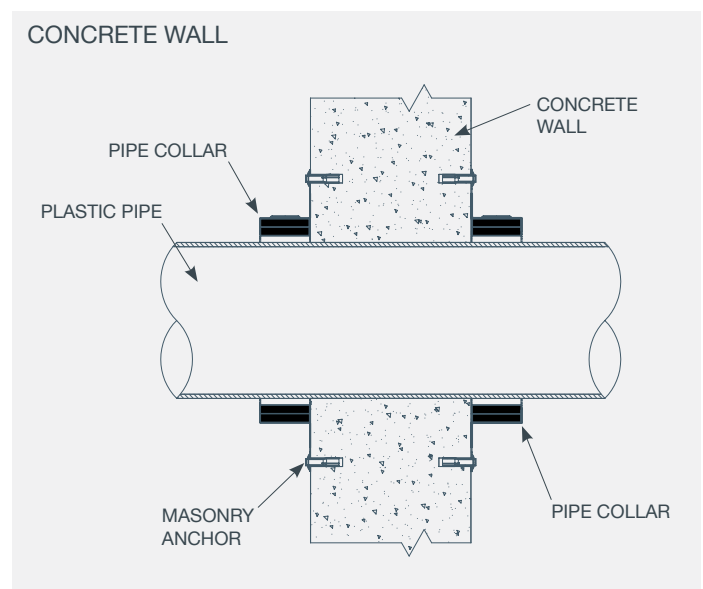
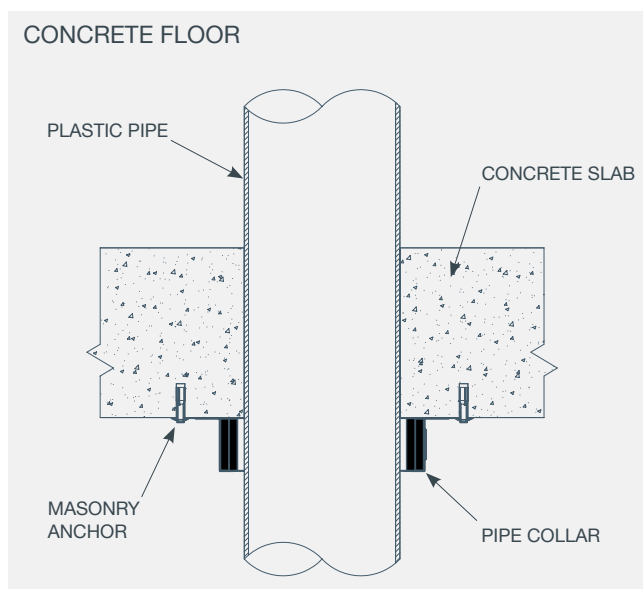
## SUITABLE FOR FITTING TO:

- Concrete floors
- Hollow core construction floors
- Rib & timber infill floors
- Composite floors
- Concrete, masonry walls
- Plasterboard walls
- Speedpanel walls
- Hebel Powerpanel walls

## FEATURES:

- Totally unaffected by water
- Unique low profile design (25-80mm)
- Stainless or galvanized steel case
- Retro fitting - easy install slide tab
- For use on various penetrations

## CONCRETE INSTALLATION DETAILS:



# CONCRETE SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#	WALL FRL	FTC#
<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	650		
40	150	2.0	ALLFC40	47	-/120/120	644	-/120/120	716
50	150	2.2	ALLFC50	57	-/120/120	644	-/120/120	717
65	150	2.7	ALLFC65	72	-/120/120	609	-/180/180	610
80	150	2.9	ALLFC80	87	-/120/120	615	-/180/180	610
100	150	3.2	ALLFC100	112	-/120/120	644	-/120/120	615
150	150	4.5	ALLFC150	162	-/120/120	609	-/120/120	717
<b>PVC PLASTIC PIPE - WITH SOCKET</b>								
40	120	Socket	ALLFC40	47	-/240/180	692		
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	606		
<b>HDPE PLASTIC PIPE</b>								
50	150	3.0	ALLFC50	52	-/120/120	606	-/120/120	612
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	606	-/120/120	614
110	150	4.3	ALLFC100	112	-/120/120	606	-/120/120	614
150	150	6.2	ALLFC150	162	-/120/120	609		
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>								
20	120	2.2	ALLFC25	28	-/120/120	650		
40	150	5.5	ALLFC40	42	-/120/120	608	-/120/120	614
75	150	10.3	ALLFC80	77	-/120/120	608		
110	150	15.1	ALLFC100	112	-/90/90	608		
<b>RAUPIANO PP-MD</b>								
40	120	1.8	ALLFC40	42	-/120/120	639		
50	120	1.8	ALLFC50	52	-/120/120	639		
75	120	1.9	ALLFC80	77	-/120/120	639		
110	120	2.7	ALLFC100	112	-/120/120	639		
<b>D BLUE PP-MD</b>								
40	120	1.8	ALLFC40	42	-/120/120	726		
50	120	1.8	ALLFC50	52	-/240/240	692		
75	120	2.3	ALLFC80	77	-/120/120	726		
110	120	3.4	ALLFC100	112	-/240/240	692		

Continued on next page.

## 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	FTC#	WALL FRL	FTC#
OTHER PLASTIC PIPE								
16 PEX	120	2.35	ALLFC25	28	-/120/120	650		
20 PEX	120	2.95	ALLFC25	28	-/120/120	12424-001		
25 PEX	120	3.75	ALLFC25	28	-/120/120	650		
16 PB	120	1.7	ALLFC25	28	-/120/120	650		
20 PB	120	2.1	ALLFC25	28	-/120/120	12424-001		
28 PB	120	2.8	ALLFC25	32	-/120/120	650		
25 PEX/AL/PEX	120	2.8	ALLFC25	28	-/120/120	650		

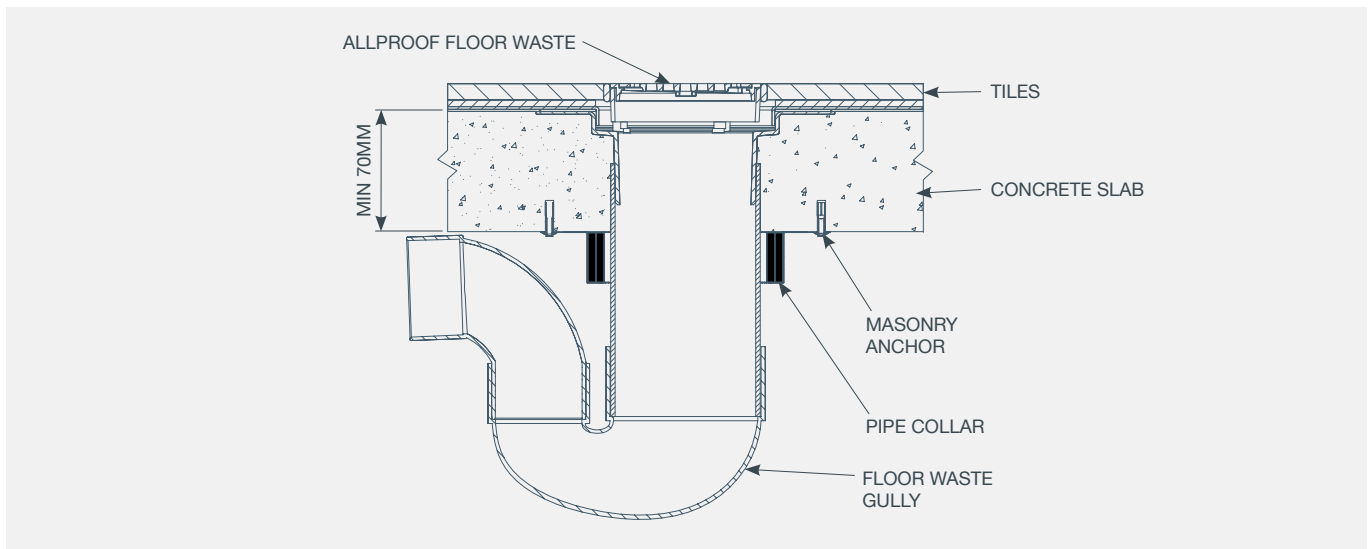
Fixing: Collars tested using M6x25 masonry anchors or M6x4.5 DBZ Wedge Anchors.

## 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	FTC#
PVC PLASTIC PIPE						
80	70	2.9	ALLFC80	92	-/120/120	10471
100	70	3.2	ALLFC100	117	-/120/0	10471
50	120	2.2	ALLFC50	57	-/120/120	650
100	120	3.2	ALLFC100	112	-/120/120	650

Fixing: Collars tested using M6x25 masonry anchors or M6x4.5 DBZ Wedge Anchors.

## FLOOR WASTE INSTALLATION DETAILS:



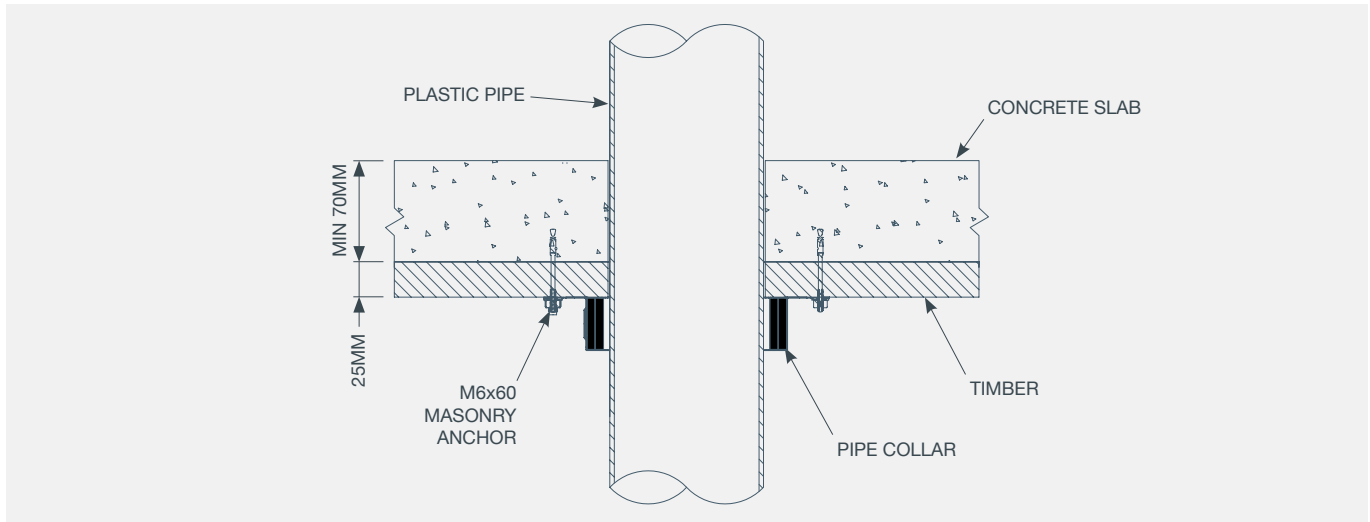


## RIB & TIMBER INFILL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
PVC PLASTIC PIPE							
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

Fixing: Collars tested using M6x60 masonry anchors.

## RIB & TIMBER INFILL STACK INSTALLATION DETAILS:

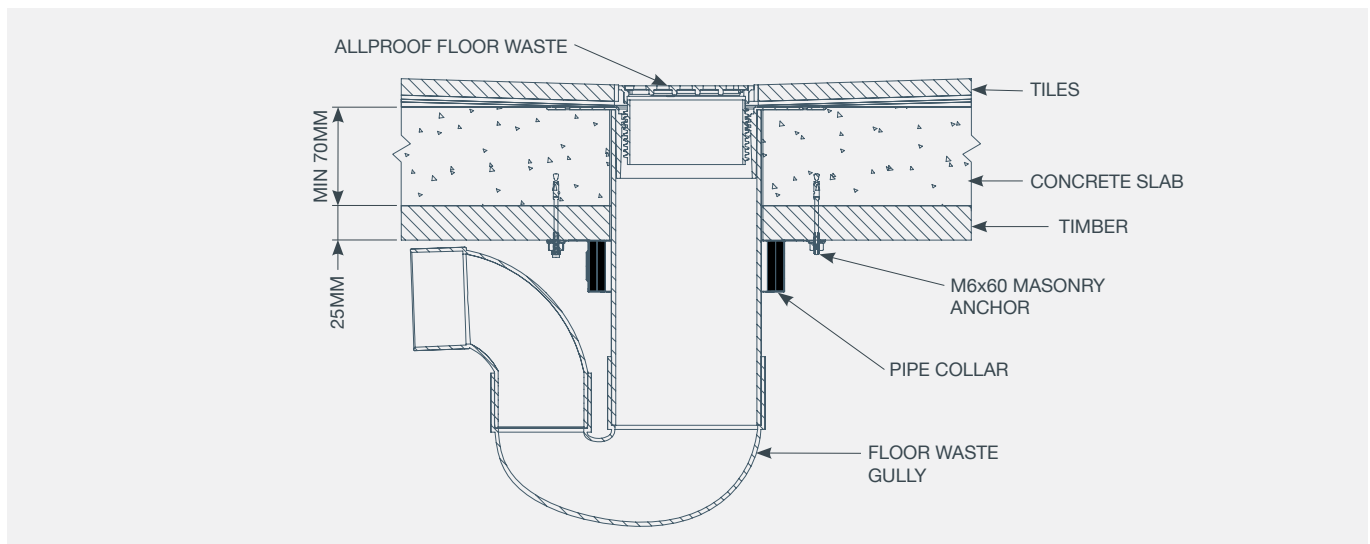


## RIB & TIMBER INFILL FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	TIMBER DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
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:



# HOLLOW CORE SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
<b>PVC PLASTIC PIPE</b>						
20	150	1.8	ALLFC25	28	-/60/60	4687
40	150	2.0	ALLFC40	47	-/60/60	4687
50	150	2.2	ALLFC50	57	-/60/60	4687
65	150	2.7	ALLFC65	72	-/60/60	4687
80	150	2.9	ALLFC80	87	-/60/60	4687
100	150	3.2	ALLFC100	112	-/60/60	4687
150	150		ALLFC150	162	-/60/60	4687
<b>PVC PLASTIC PIPE - WITH PVC SOCKETS</b>						
40	150	2.4	ALLFC40	47	-/60/60	4687
100	150	3.3	ALLFC100	112	-/60/60	4687
<b>HDPE PLASTIC PIPE</b>						
50	150	3.0	ALLFC50	52	-/60/60	4687
80	150	3.0	ALLFC80	77	-/60/60	4687
100	150	4.3	ALLFC100	112	-/60/60	4687
160	150	6.2	ALLFC150	162	-/60/60	4687
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>						
40	150	5.5	ALLFC40	55	-/60/60	4687
75	150	10.3	ALLFC80	85	-/60/60	4687
110	150	15.1	ALLFC100	112	-/60/60	4687
<b>RAUPIANO PP-MD</b>						
40	150	1.8	ALLFC40	44	-/60/60	4687
50	150	1.8	ALLFC50	54	-/60/60	4687
75	150	1.9	ALLFC80	79	-/60/60	4687
110	150	2.7	ALLFC100	114	-/60/60	4687
<b>D BLUE PP-MD</b>						
50	150	1.8	ALLFC50	52	-/60/60	4687
110	150	3.4	ALLFC100	112	-/60/60	4687
<b>OTHER PLASTIC PIPE</b>						
16 PEX	150	2.35	ALLFC25	28	-/60/60	4687
25 PEX	150	3.75	ALLFC25	28	-/60/60	4687
25 PEX/AL/PEX	150	2.8	ALLFC25	28	-/60/60	4687
16 PB	150	1.7	ALLFC25	28	-/60/60	4687
28 PB	150	2.8	ALLFC25	32	-/60/60	4687

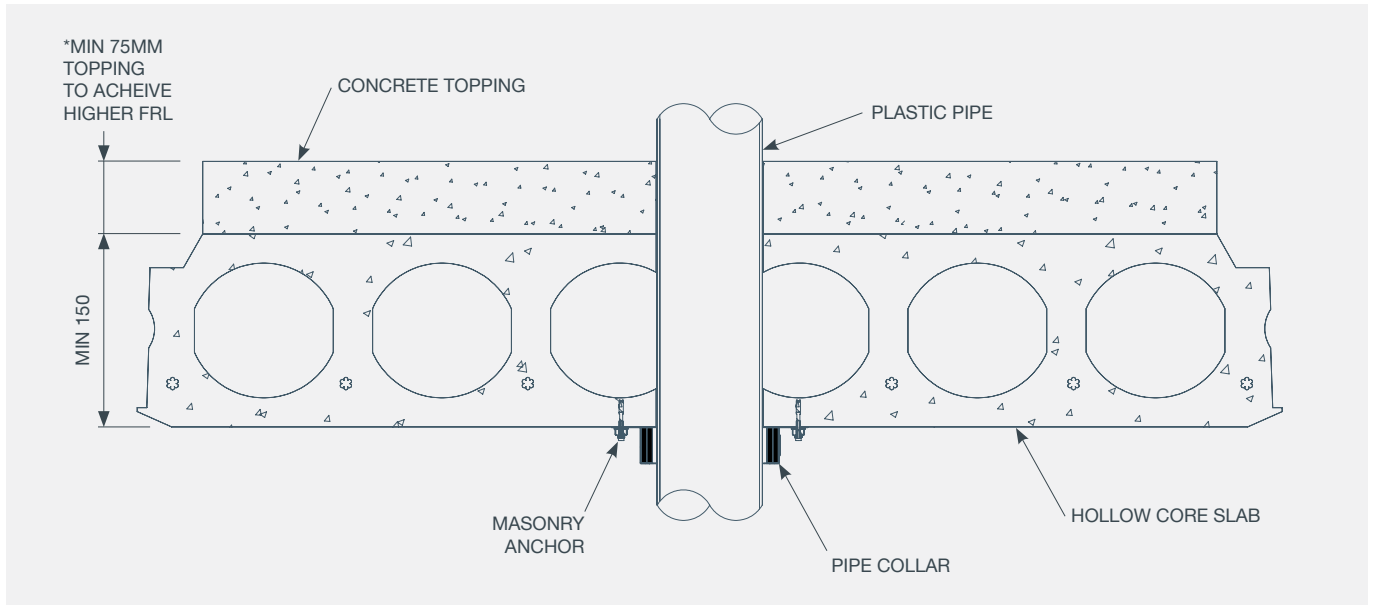
Fixing: Collars tested using M6x25 masonry anchors or M6x4.5 DBZ Wedge Anchors.

Note: FRL can be increased with the below floor depth specifications,

75mm concrete topping can be added to 150mm hollow core floor to achieve -/90/90 FRL.

Hollowcore floors with a minimum depth of 200mm will achieve -/90/90 FRL.

## HOLLOW CORE SLAB INSTALLATION DETAILS:



\*75mm concrete topping can be added to 150mm hollow core floor to achieve -/90/90 FRL.

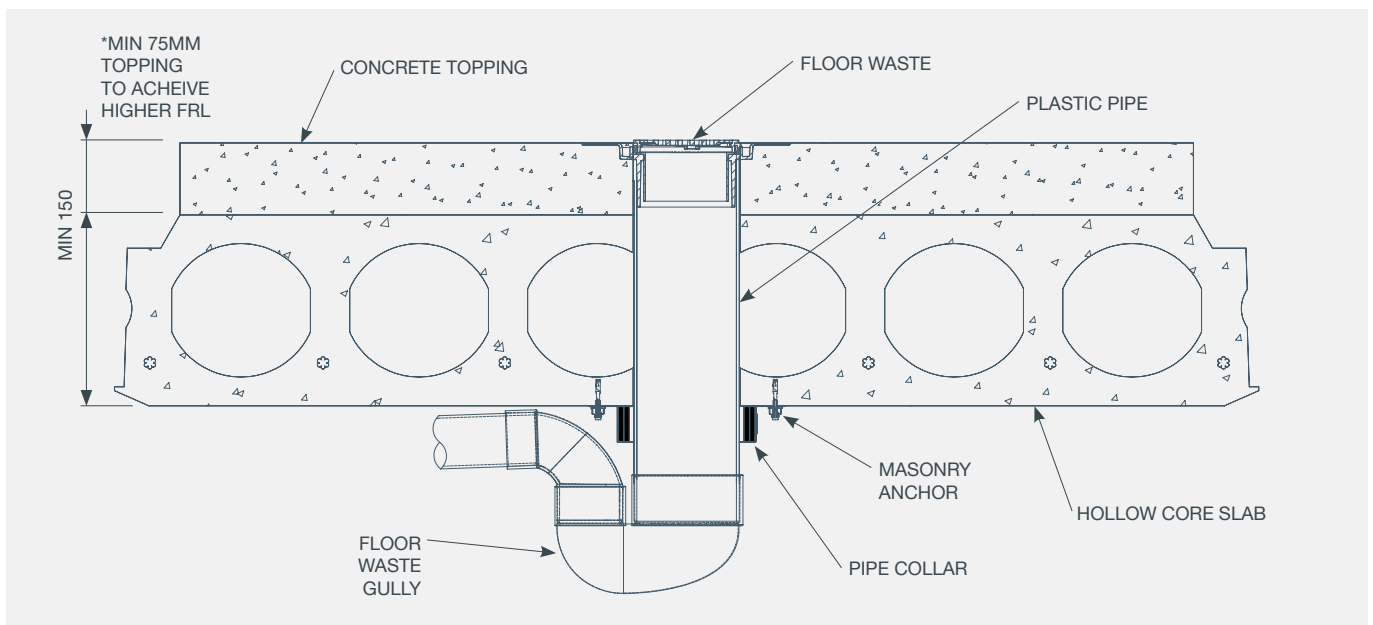
## HOLLOW CORE SLAB FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
PVC PLASTIC PIPE						
80	150		ALLFC80	87	-/60/60	4687
100	150		ALLFC100	112	-/60/60	4687
80	200		ALLFC80	87	-/90/90	4687
100	200		ALLFC100	112	-/90/90	4687

Fixing: Collars tested using M6x25 masonry anchors or M6x4.5 DBZ Wedge Anchors.

Note: 75mm concrete topping can be added to 150mm hollow core floor to achieve -/90/90 FRL.

## HOLLOW CORE SLAB FLOOR WASTE INSTALLATION DETAILS:



\*75mm concrete topping can be added to 150mm hollow core floor to achieve -/90/90 FRL.

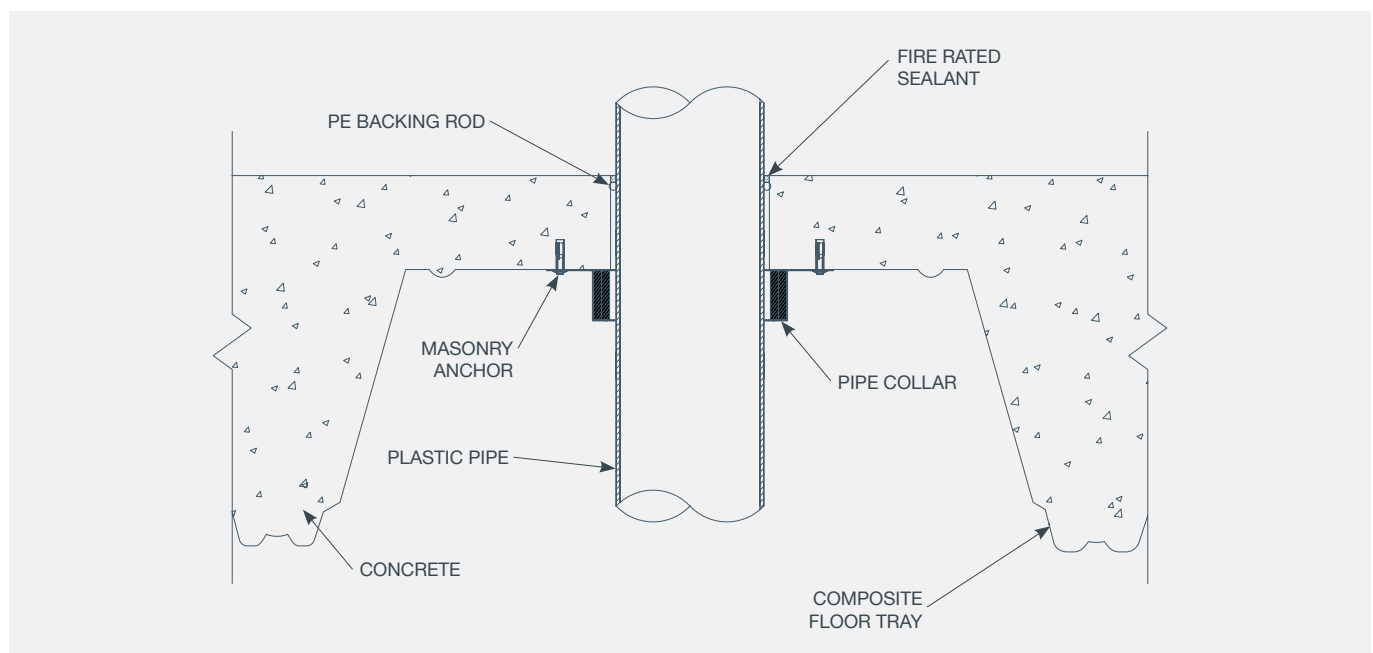
# COMPOSITE FLOOR TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
<b>PVC PLASTIC PIPE</b>						
40	70	2.5	ALLFC40	52	-/60/60	11267
100	70	3.2	ALLFC100	118	-/60/60	11267
<b>PP-R PLASTIC PIPE (SDR 11)</b>						
32	70	3.5	ALLFC40	37	-/60/60	11267
<b>PEX PIPE</b>						
16	70	2.7	ALLFC25	28	-/60/60	11267

Fixing: Collars tested using M6x26 masonry anchors.

Note: Collars installed on flat surfaces between the trough profiles.

## COMPOSITE FLOOR INSTALLATION DETAILS:



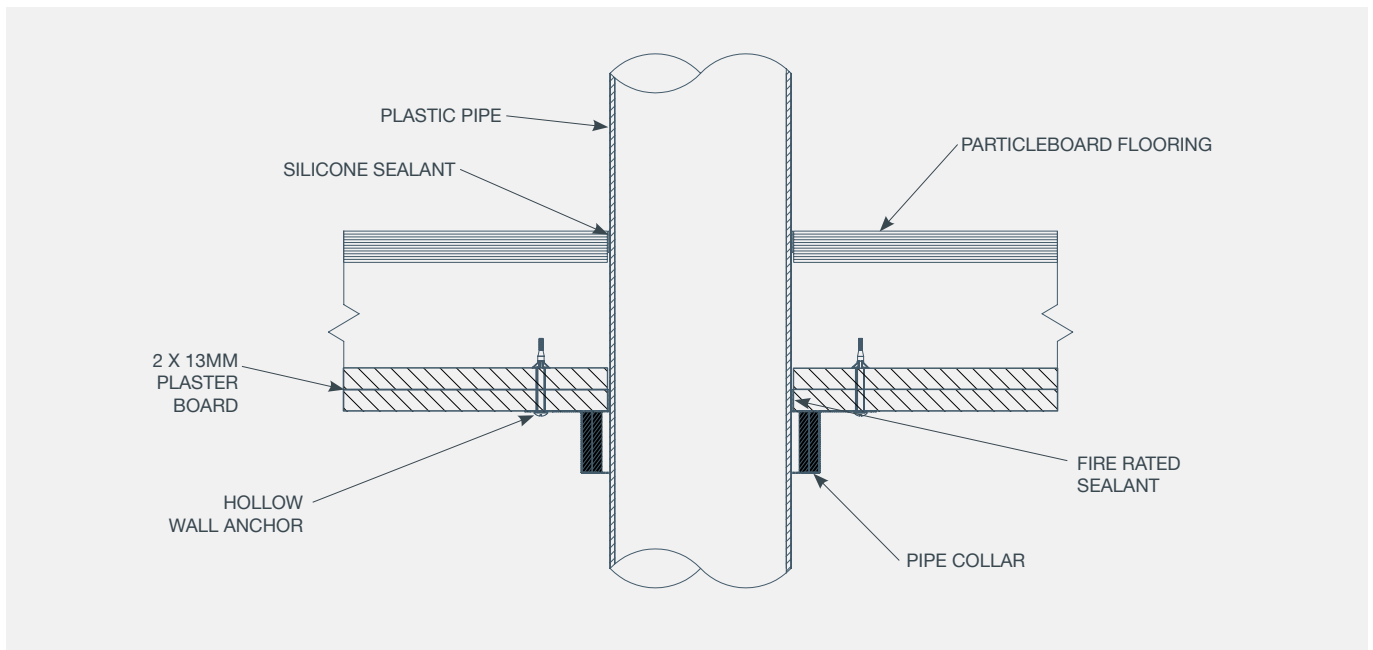
## 2 X 13MM PLASTERBOARD CEILING TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD CEILING FRL*	FTC#
<b>PVC PLASTIC PIPE</b>					
40	2.0	ALLFC40	55	-/90/90	190268.1
50	2.5	ALLFC50	70	-/90/90	190268.1
100	3.5	ALLFC100	110	-/90/90	190268.1
<b>PVC PLASTIC PIPE - WITH PVC SOCKETS</b>					
40	Socket	ALLFC40	51	-/90/90	142100
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>PEXa 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. Pipe 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:





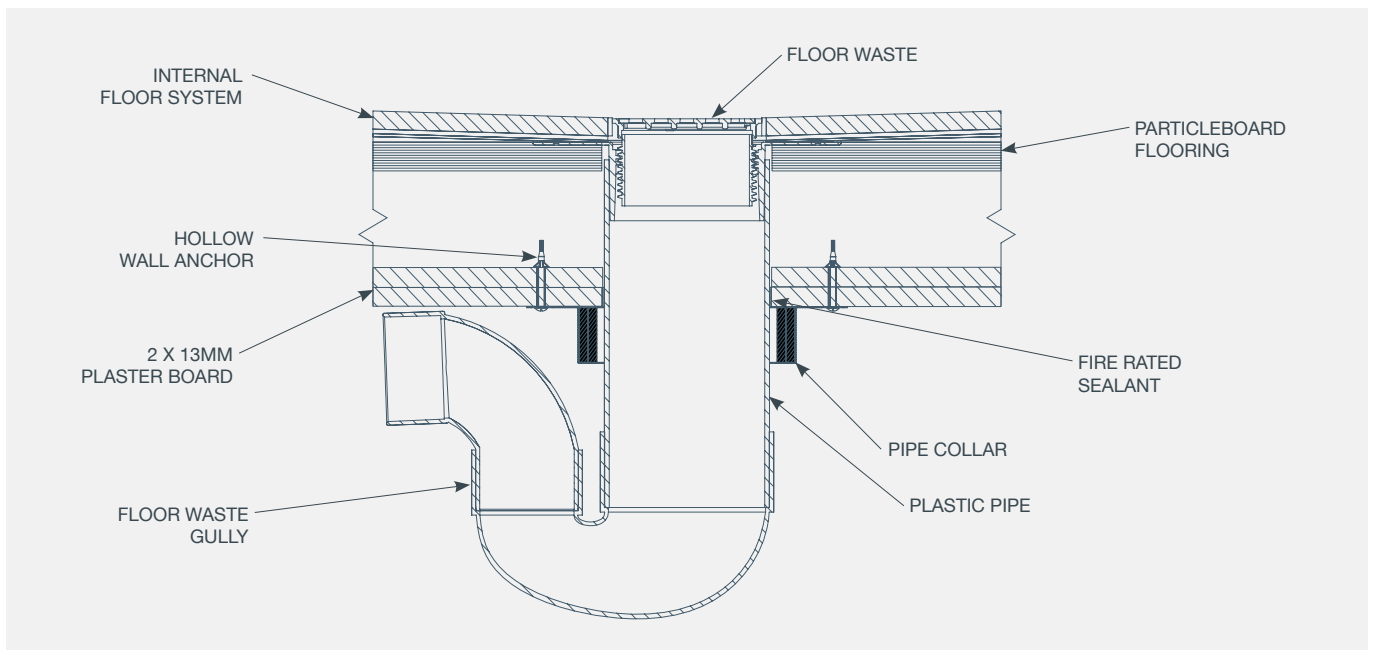
# 2 X 13MM PLASTERBOARD CEILING FLOOR WASTE TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD CEILING FRL*	FTC#
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. Pipe 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*	FTC#
<b>PVC PLASTIC PIPE</b>					
25	2.1	ALLFC25	30	-/60/60	13509
40	2.0	ALLFC40	47	-/60/45	693
50	2.2	ALLFC50	57	-/60/60	693
65	2.7	ALLFC65	72	-/60/60	729
80	2.9	ALLFC80	87	-/60/60	693
100	3.2	ALLFC100	112	-/60/60	729
<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>PEXa PIPE</b>					
16 PEXa	2.6	ALLFC25	19	-/60/60	143281
20 PEXa	2.9	ALLFC25	25	-/60/60	143281
25 PEXa	3.5	ALLFC25	30	-/60/60	13509
<b>RAUPIANO PP-MD</b>					
40	1.8	ALLFC40	47	-/60/45	143281
50	1.8	ALLFC50	57	-/60/45	143281
100	2.7	ALLFC100	117	-/60/60	143281
<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>OTHER PLASTIC PIPE</b>					
25 PP-R (SDR 11)	2.3	ALLFC25	29	-/60/45	143281
32 PP-R (SDR 11)	2.9	ALLFC40	38	-/60/60	13509
16 PEX/AL/PEX	2.0	ALLFC25	19	-/60/45	729
20 PEX/AL/PEX	3.1	ALLFC25	25	-/60/45	729
20 PEX/AL/PE	2.9	ALLFC25	30	-/60/60	13509
16 PE-RT/AL/PE-RT	2.2	ALLFC25	20	-/60/45	190083
20 PE-RT/AL/PE-RT	2.2	ALLFC25	25	-/60/45	190083
25 PE-RT/AL/PE-RT	2.7	ALLFC25	29	-/60/45	190083
32 PE-RT/AL/PE-RT	3.1	ALLFC40	38	-/60/45	190083
40 PE-RT/AL/PE-RT	4.3	ALLFC40	44	-/60/0	190083
<b>PLASTIC PIPE - IN WALL</b>					
40 PVC	2.0	ALLFC40	70	-/60/45	143281
20 PEX	2.9	ALLFC25	45	-/60/45	693
25 PP-R	4.0	ALLFC25	45	-/60/45	693

\* 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. Pipe 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*	FTC#
<b>PVC PLASTIC PIPE</b>					
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
<b>PVC PLASTIC PIPE - IN-WALL</b>					
40	2.4	ALLFC40	70	-/30/30	13088
<b>OTHER PLASTIC PIPE</b>					
20 PEXa	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. Pipe 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*	FTC#
<b>PVC PLASTIC PIPE</b>					
40	2	ALLFC40	47	-/90/60	200379
<b>PEXa PIPE</b>					
16 PEXa	2	ALLFC25	19	-/90/60	200379
20 PEXa	3	ALLFC25	25	-/90/60	200379
25 PEXa	4	ALLFC25	30	-/90/60	200379
<b>PEXa PIPE - IN WALL</b>					
16 PEXa	2	ALLFC25	45	-/90/90	200379
20 PEXa	3	ALLFC25	45	-/90/60	200379
25 PEXa	4	ALLFC25	45	-/90/90	200379
<b>OTHER PLASTIC PIPE - IN WALL</b>					
25 PEXa/AL/PE	4	ALLFC25	30	-/90/60	200379

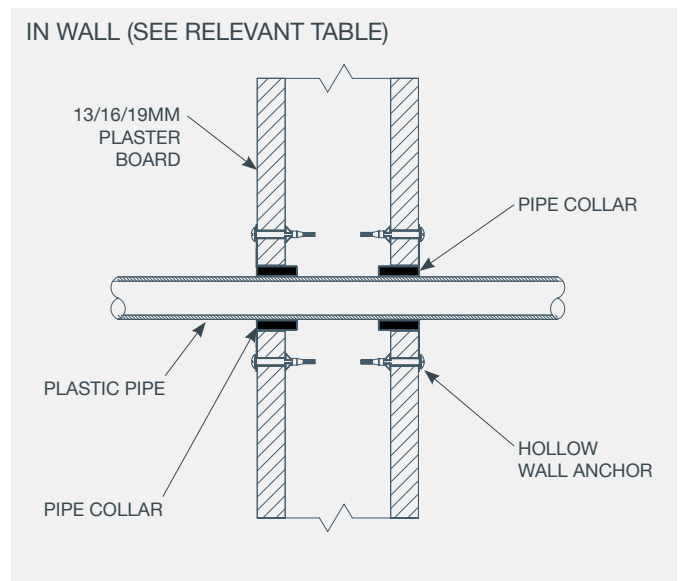
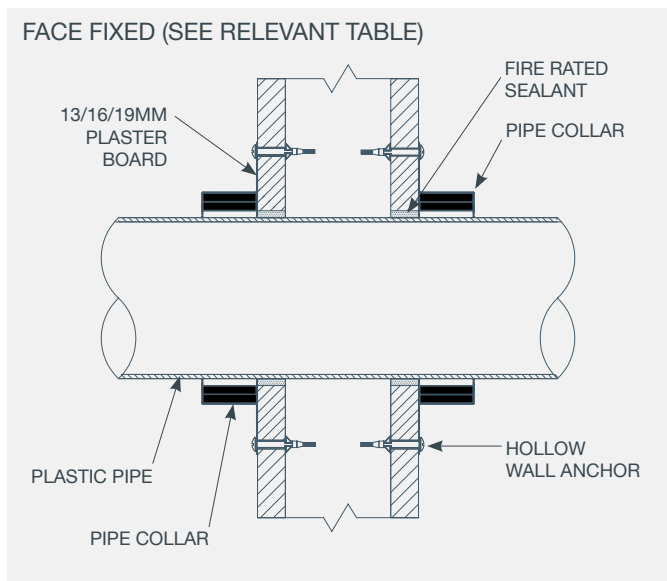
\* Tested using a 64mm wide steel stud with a single layer of 16mm fire rated plasterboard on each side of the frame. A total wall thickness of 96mm. Pipe collars are fixed using M8 hollow wall anchors to suit 10-16mm plasterboard- not fixed into framing or studs in wall. Intumescent sealant is applied 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*	FTC#
<b>PVC PLASTIC PIPE</b>					
40	2.0	ALLFC40	47	-/120/90	607
50	2.2	ALLFC50	57	-/120/90	615
65	2.7	ALLFC65	72	-/120/90	611
80	2.9	ALLFC80	87	-/120/90	607
100	3.2	ALLFC100	112	-/120/90	612
150	4.5	ALLFC150	162	-/90/60	621
<b>HDPE PLASTIC PIPE</b>					
50	3.0	ALLFC50	52	-/120/120	612
75	3.0	ALLFC80	77	-/120/90	611
110	4.3	ALLFC100	112	-/120/90	612
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>					
40	5.5	ALLFC40	42	-/120/90	611
50	6.9	ALLFC50	52	-/120/90	611
63	8.6	ALLFC65	65	-/90/90	613
75	10.3	ALLFC80	77	-/90/30	613
110	15.1	ALLFC100	112	-/30/30	613
<b>PLASTIC PIPE - IN WALL</b>					
40 PVC	2.2	ALLFC40	70	-/120/90	645
100 PVC	3.3	ALLFC100	150	-/45/45	4101
25 PP-R (SDR 7.4)	3.7	ALLFC25	45	-/120/90	645
25 PEX	3.7	ALLFC25	45	-/120/90	645
22 PB	2.2	ALLFC25	45	-/120/90	645

\* 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. Pipe collars are fixed using hollow wall anchors directly into plasterboard - not fixed into framing or studs in wall. 25mm pipe 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*	FTC#
PEXa 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

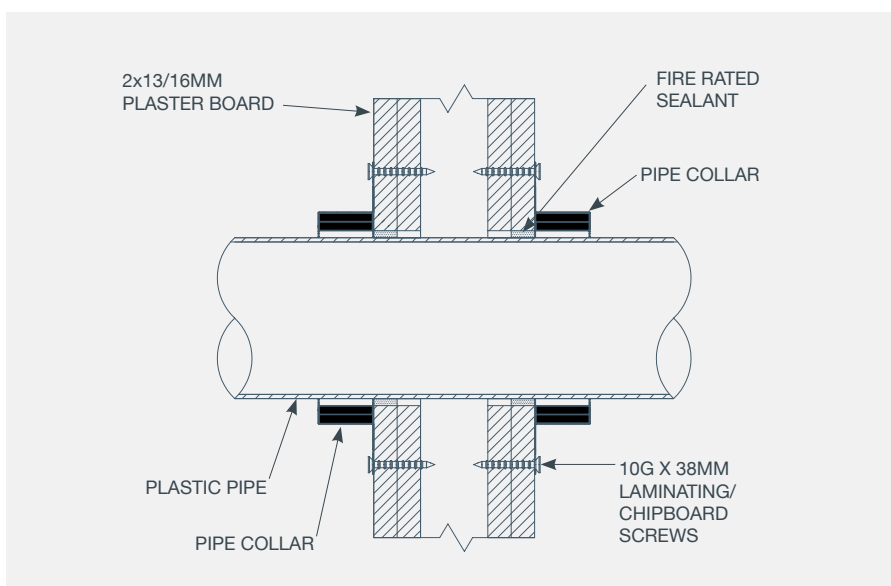
\* Tested using a 64mm wide steel stud with a single layer of 2 x 13mm fire rated plasterboard on each side of the frame. A total wall thickness of 116mm. Pipe collars are fixed using 2 x 10G x 38mm laminating or chipboard screws directly into plasterboard - not fixed into framing or studs in wall. Intumescent 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*	FTC#
PVC PLASTIC PIPE					
40	2.0	ALLFC40	47	-/120/120	718
50	2.2	ALLFC50	57	-/120/120	718
65	2.7	ALLFC65	72	-/120/120	718
80	2.9	ALLFC80	87	-/120/120	718
100	3.2	ALLFC100	112	-/120/120	718
PEX PIPE					
16	2.6	ALLFC25	19	-/120/120	718
OTHER PLASTIC PIPE					
20 PEX/AL/PEX	3.1	ALLFC25	25	-/120/120	718

\* 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. Pipe 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:





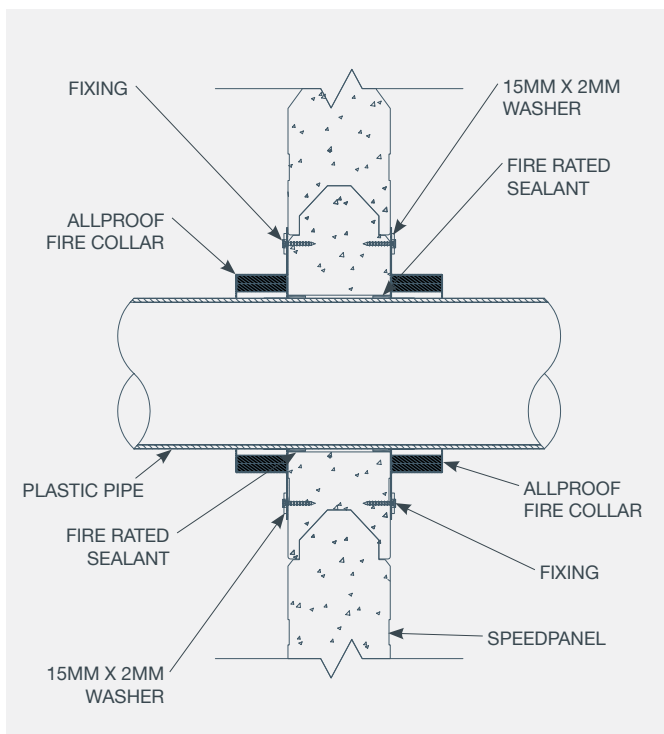
# SPEEDPANEL TEST RESULTS:

NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	FTC#
<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
100	78	4.3	ALLFC100	114	-/120/90	190283.1

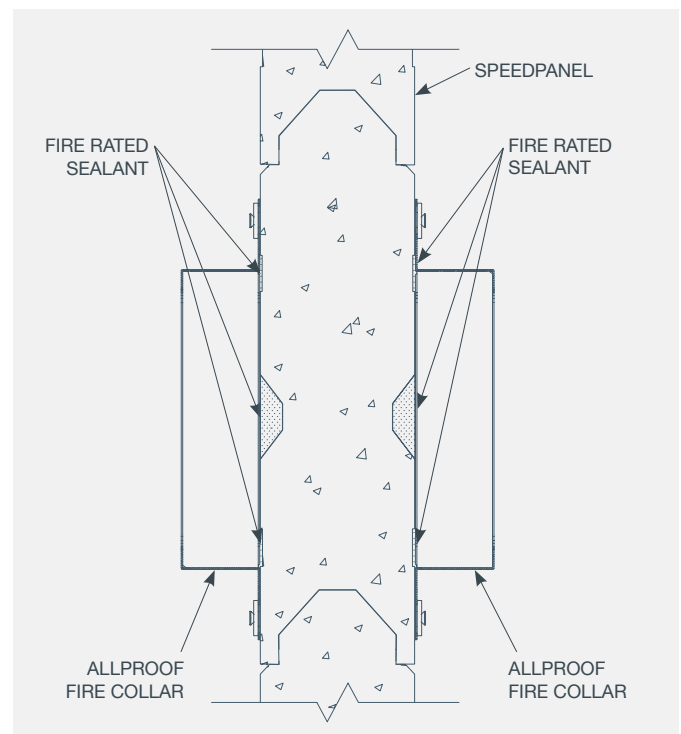
Fixing: Collars tested using 10G x 38mm needle point screws with Ø15mm x 2mm thick washers.

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:

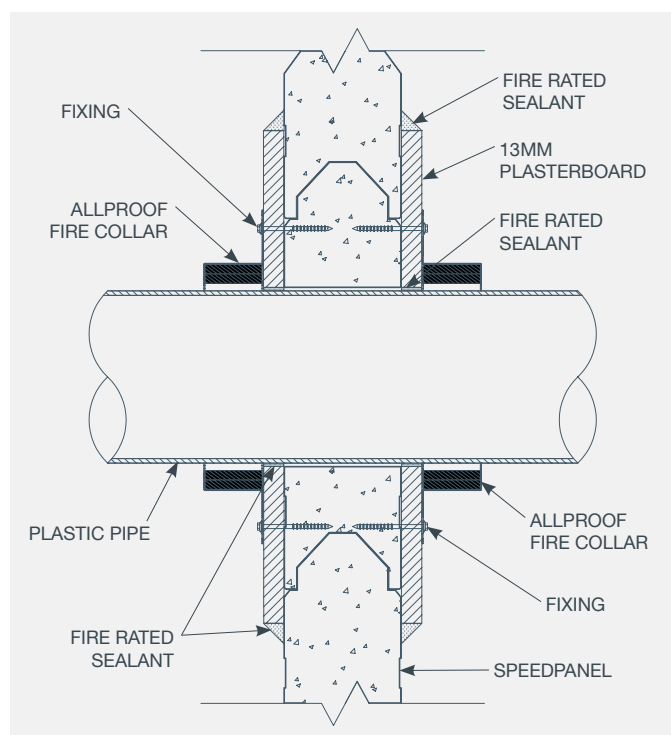
NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	PLASTER-BOARD (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	FTC#
<b>PVC PLASTIC PIPE</b>							
40	78	13	2.0	ALLFC40	44	-/120/120	180434.4
50	78	13	2.3	ALLFC50	54	-/120/120	180434.4
65	78	13	2.7	ALLFC65	70	-/120/120	180434.4
80	78	13	2.9	ALLFC80	85	-/120/120	180434.4
100	78	13	3.0	ALLFC100	111	-/120/120	180434.4
<b>PEXa 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.

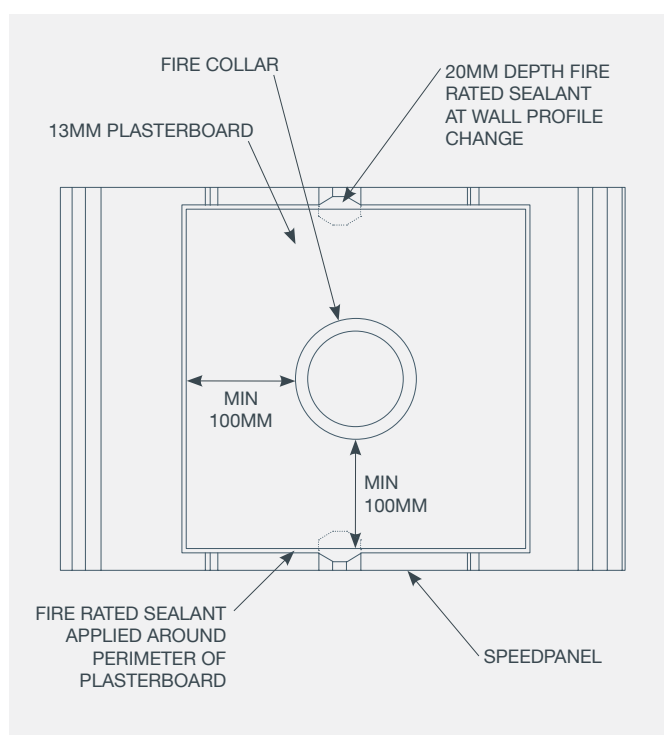
Intumescent sealant installed around edge and between Speedpanel and plasterboard where profile changes (see 'Front Detail' below)

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:



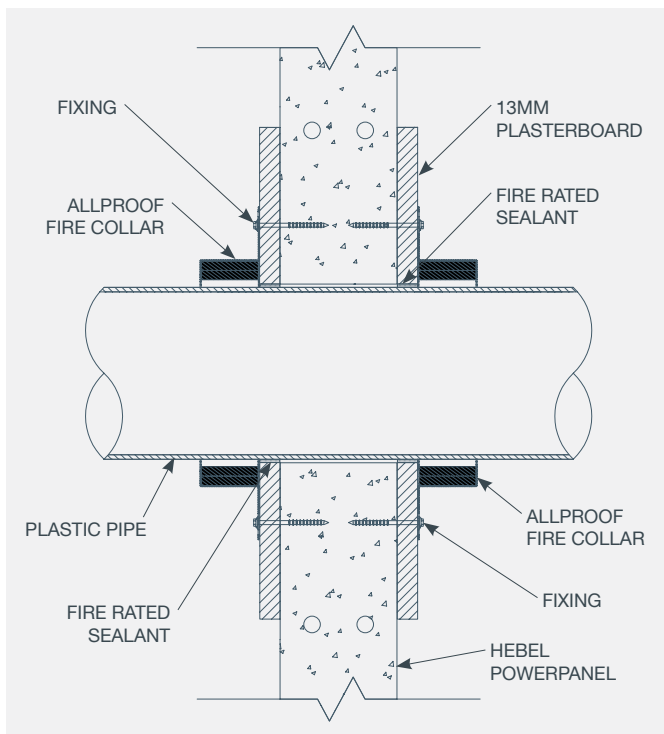
# HEBEL POWERPANEL WITH PLASTERBOARD PATCH TEST RESULTS:

NOMINAL PIPE SIZE (MM)	PANEL DEPTH (MM)	PLASTERBOARD (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	WALL FRL	FTC#
<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>PEXa 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

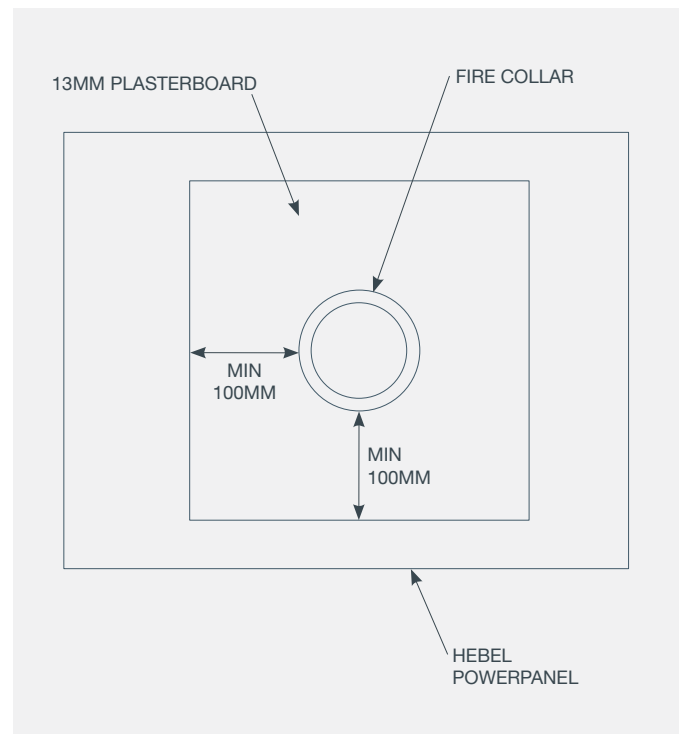
Fixing: 14-10 x 65mm hex head type 17 screws.

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:

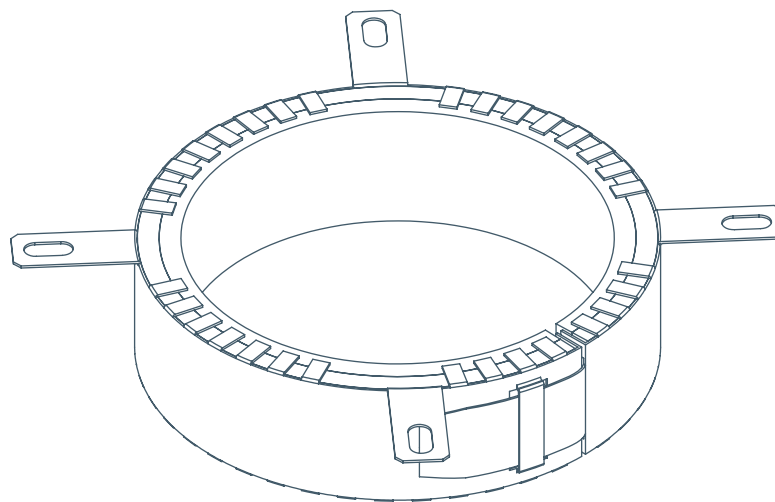
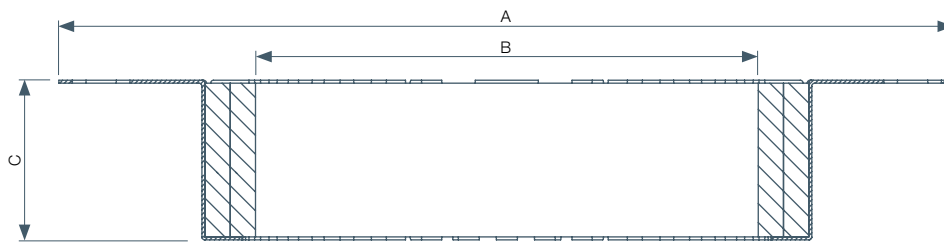


## HEBEL POWERPANEL WITH PLASTERBOARD PATCH FRONT DETAIL:



# PIPE COLLAR DIMENSIONS

CODE	ALLFC25GALV	ALLFC40SS ALLFC40GALV	ALLFC50SS ALLFC50GALV	ALLFC65SS ALLFC65GALV	ALLFC80SS ALLFC80GALV	ALLFC100SS ALLFC100GALV	ALLFC150SS ALLFC150GALV
Nom. Pipe Diameter	25mm	40mm	50mm	65mm	80mm	100mm	150mm
Outside Diameter (A)	100mm	121mm	122mm	136mm	154mm	213mm	258mm
Inside Diameter (B)	31mm	50mm	63mm	77mm	95mm	120mm	165mm
Collar Height (C)	28mm	28mm	28mm	28mm	28mm	38mm	54mm
# of Fixing Tabs	2	2	3	3	3	4	6



## INSTALLATION INSTRUCTIONS:

1. Ensure substrate around pipe is flat and free from obstructions.
2. Open pipe collar and position around pipe.
3. Slide tab through slot in pipe collar and fold back 180° to secure.
4. Secure pipe 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 pipe collar on both sides for wall penetrations.
6. Allproof recommends any thermal or acoustic lagging maintains a 50mm separation to the fire collar.





**ALLPROOF**  
WATERPROOFING  
MEMBRANE  
FOR CONCRETE  
AND MASONRY  
SURFACES  
APPLY TO ALL  
TYPES OF  
CONCRETE  
AND MASONRY  
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**ALLPROOF**  
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# 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:

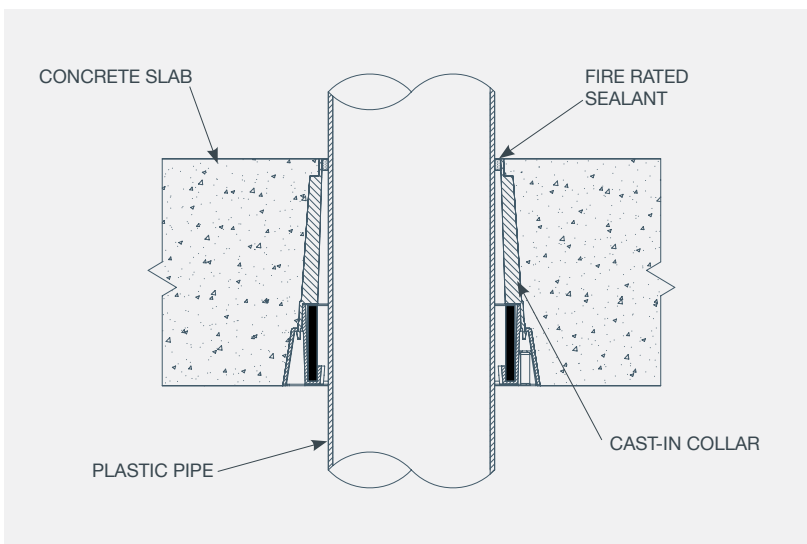
- Solid Masonry Floors

## 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.

## CAST IN COLLAR TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT	FLOOR FRL	FTC#
<b>PVC PLASTIC PIPE</b>					
40	120	2.0	CIFC50S	-/180/180	692
50	120	2.2	CIFC50S	-/240/180	692
65	120	2.7	CIFC80S	-/240/180	692
80	120	2.9	CIFC80S	-/240/180	692
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	2.4	CIFC40S	-/120/120	200399
50	120	2.0	CIFC50S	-/120/120	200399
65	120	2.5	CIFC65S	-/180/180	200399
80	120	3.0	CIFC80S	-/180/120	200399
100	120	3.0	CIFC100S	-/240/180	13411
<b>HDPE PLASTIC PIPE</b>					
40	120	3.0	CIFC50S	-/240/180	692
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
100	120	4.3	CIFC100S	-/240/120	200098.1
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>					
40	120	5.5	CIFC50S	-/240/120	692
110	120	15.1	CIFC100S	-/180/180	692
<b>RAUPIANO PP-MD</b>					
40	120	1.8	CIFC50S	-/240/180	692
50	120	1.8	CIFC50S	-/120/120	727
75	120	1.9	CIFC80S	-/120/120	727
110	120	2.7	CIFC100S	-/240/180	13411
<b>D-BLUE PP-MD</b>					
40	120	1.8	CIFC50S	-/120/120	726
50	120	1.8	CIFC50S	-/240/180	692
75	120	2.3	CIFC80S	-/120/120	726
90	120	2.8	CIFC100S	-/120/120	726
110	120	3.4	CIFC100S	-/240/180	13411

# LOW CAST-IN COLLARS

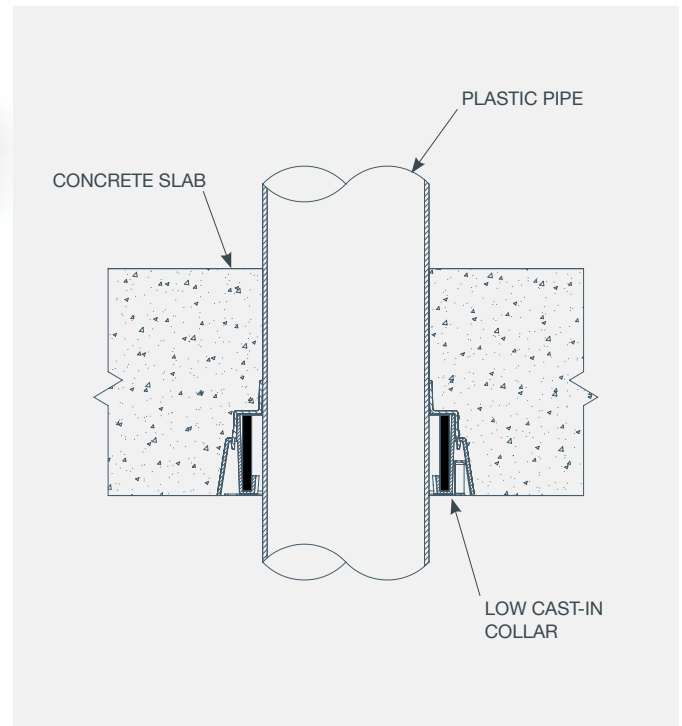
Allproof low cast-in collars are designed to suit 40-100mm PVC pipe penetrations. The low cast-in collar is installed in a similar manner to the standard cast-in collar. The main difference with the lowcast-in collar is that the pipe acts as the riser to the required height during the concrete pour. The pipe should be capped to prevent concrete entering the pipework during construction.



## 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.

## INSTALLATION DETAILS:



## LOW CAST-IN COLLAR TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT	FLOOR FRL	FTC#
<b>PVC PLASTIC PIPE</b>					
40	120	2.0	CIFC40S L	-/240/240	692
50	120	2.2	CIFC50S L	-/240/180	692
65	120	2.7	CIFC65S L	-/240/180	692
80	120	2.9	CIFC80S L	-/240/180	692
100	120	3.2	CIFC100S L	-/240/180	692
<b>HDPE PLASTIC PIPE</b>					
110	120	4.3	CIFC100S L	-/240/180	692
<b>RAUPIANO PP-MD</b>					
110	120	2.7	CIFC100S L	-/240/180	692
<b>D-BLUE PP-MD</b>					
110	120	3.4	CIFC100S L	-/240/180	692

# 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.



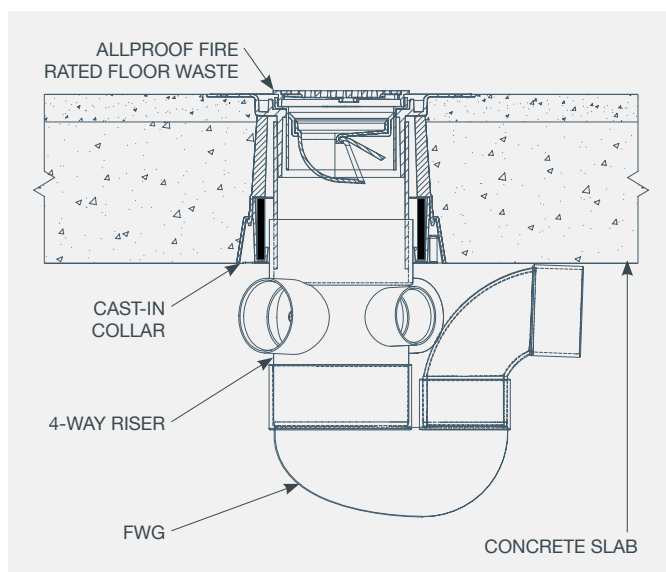
## SUITABLE FOR FITTING WITHIN:

- Solid Masonry Floors

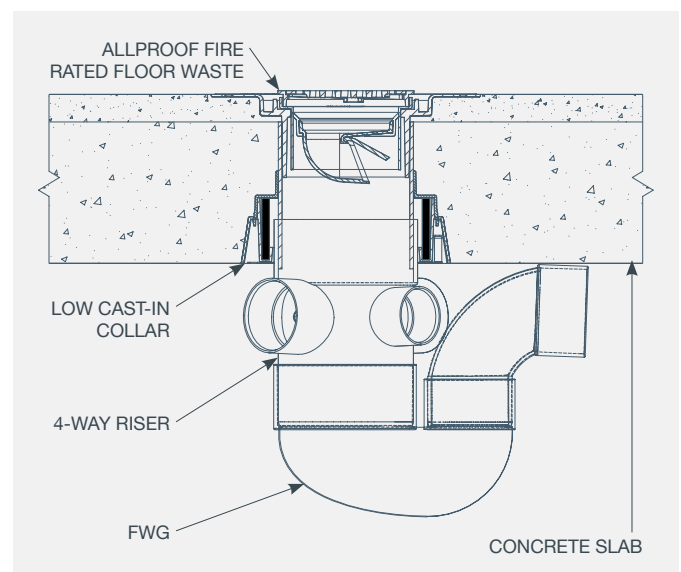
## FEATURES:

- 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	FTC#
<b>CIFC WITH PVC PIPE SOCKET CONNECTIONS</b>					
80	80mm Socket	CIFC80S	50mm	-/240/240	739
100	100mm Socket	CIFC100S	30mm	-/240/240	739
<b>CIFCL WITH PVC PLASTIC PIPE</b>					
100	Pipe Only	CIFC100S	-	-/180/180	739
<b>CIFCL WITH PVC PIPE SOCKET CONNECTIONS</b>					
80	80mm Socket	CIFC80S L	45mm	-/120/90	739
100	100mm Socket	CIFC100S L	33mm	-/180/180	739

\* Refers to the socket length within the fire collar

# 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

CIFCL

Cast in Collar - High or Low



FRTAG

FRCYC

And

Fire Rated Tilt A Grate or Fire Rated Cyclone Floor Waste

# DROP IN FIRE COLLARS

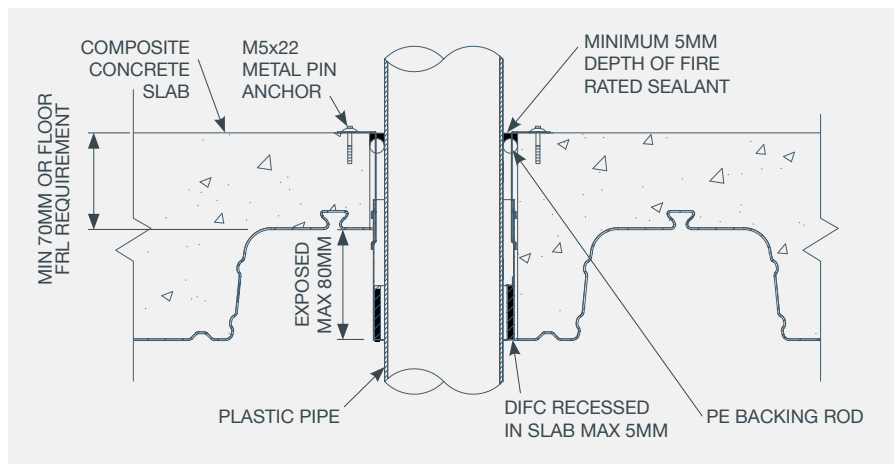
Allproof Drop In Fire Collars (DIFC'S) provide a simple and effective passive fire rating option for thin concrete floors or trapezoidal steel tray concrete floors. These composite floors feature profile changes on the underside of the slab and make it difficult to fire rate with a conventional fire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



## COMPOSITE FLOOR INSTALLATION DETAILS:



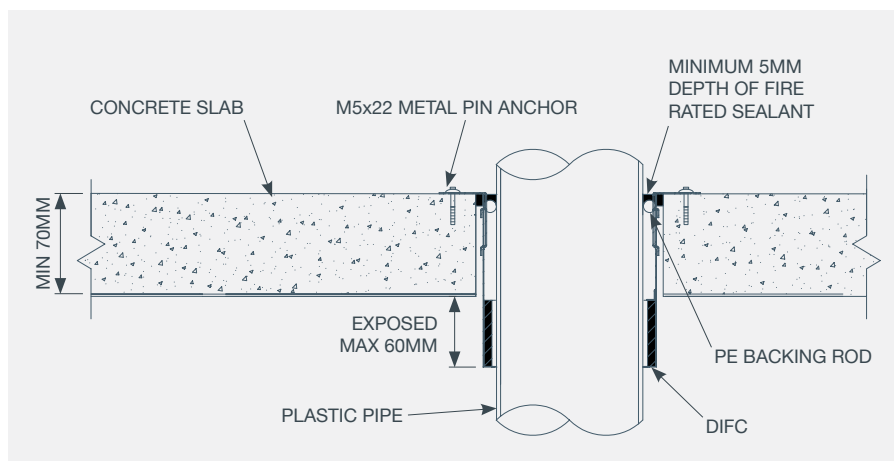
## SUITABLE FOR FITTING WITHIN:

- 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

## FLAT SLAB INSTALLATION DETAILS:





## DIFC COMPOSITE FLOOR RESULTS:

Allproof DIFCs have been tested and assessed to provide a passive fire protection system for composite floor 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 of 60mm, 80mm and 210mm.

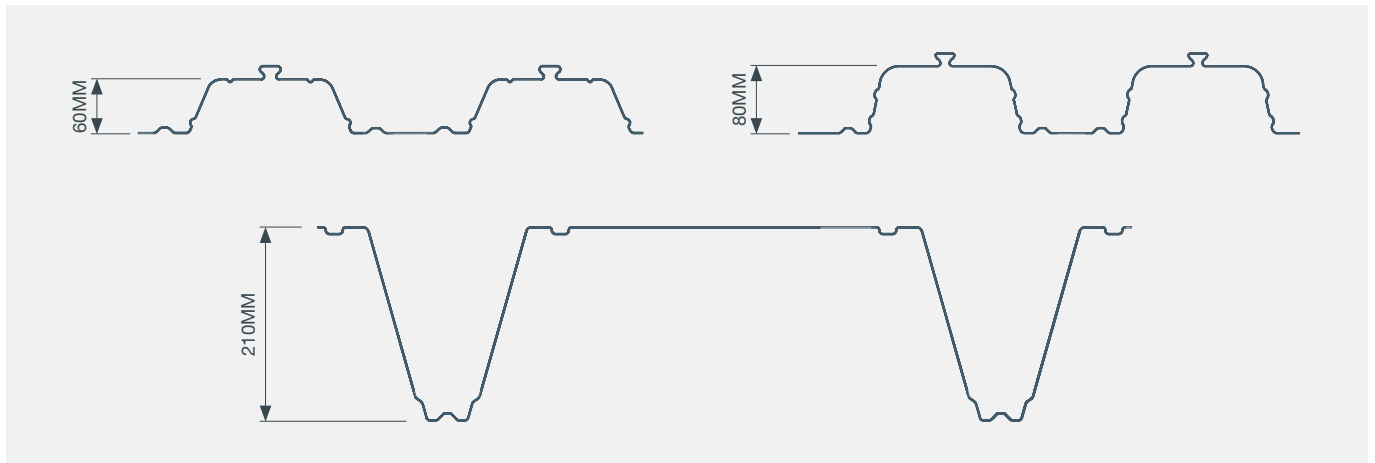
Tray FRL's are variable by adjusting the minimum depth at the shallowest section of the profile, refer to tray suppliers documentation for further information. Allproof DIFC's have been assessed to be equal to the floor FRL to a maximum of 120 minutes.

NOMINAL PIPE SIZE (MM)	PRODUCT CODE	TRAY PROFILE (MM)	PENETRATION HOLE SIZE (MM)	MAX FRL	ASSESSMENT#
<b>PVC PLASTIC PIPE</b>					
40	DIFC40	60, 80, 210	72	-/120/120	12424-003
50	DIFC50	60, 80, 210	82	-/120/120	12424-003
65	DIFC65	60, 80, 210	102	-/120/120	12424-003
80	DIFC80	60, 80, 210	112	-/120/120	12424-003
100	DIFC100	60, 80, 210	142	-/120/120	12424-003
150	DIFC150	60, 80, 210	192	-/120/120	12424-003
<b>PVC PLASTIC PIPE - WITH SOCKET</b>					
40	DIFC40	60, 80, 210	72	-/120/120	12424-002
50	DIFC50	60, 80, 210	82	-/120/120	12424-002
65	DIFC65	60, 80, 210	102	-/120/120	12424-002
80	DIFC80	60, 80, 210	112	-/120/120	12424-002
100	DIFC100	60, 80, 210	142	-/120/120	12424-002
<b>HDPE</b>					
50	DIFC50	60, 80, 210	82	-/120/120	12424-003
100	DIFC100	60, 80, 210	143	-/120/120	12424-003
150	DIFC150	60, 80, 210	192	-/120/120	12424-003
<b>D-BLUE PP-MD</b>					
50	DIFC50	60, 80, 210	82	-/120/120	12424-003
100	DIFC100	60, 80, 210	142	-/120/120	12424-003

## DIFC COMPOSITE FLOOR WASTE RESULTS:

NOMINAL PIPE SIZE (MM)	PRODUCT CODE	TRAY PROFILE (MM)	PENETRATION HOLE SIZE (MM)	MAX FRL	ASSESSMENT#
<b>PVC - WITH SOCKET</b>					
80	DIFC80	60, 80, 210	112	-/120/120	12424-003
<b>PVC - FIRE RATED FLOOR WASTE</b>					
100	DIFC100	60, 80, 210	142	-/120/120	12424-002
<b>HDPE</b>					
100	DIFC100	60, 80, 210	143	-/120/120	12424-002

## COMPOSITE FLOOR TRAY PROFILES



### ComFlor 60 - FTC 728:

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

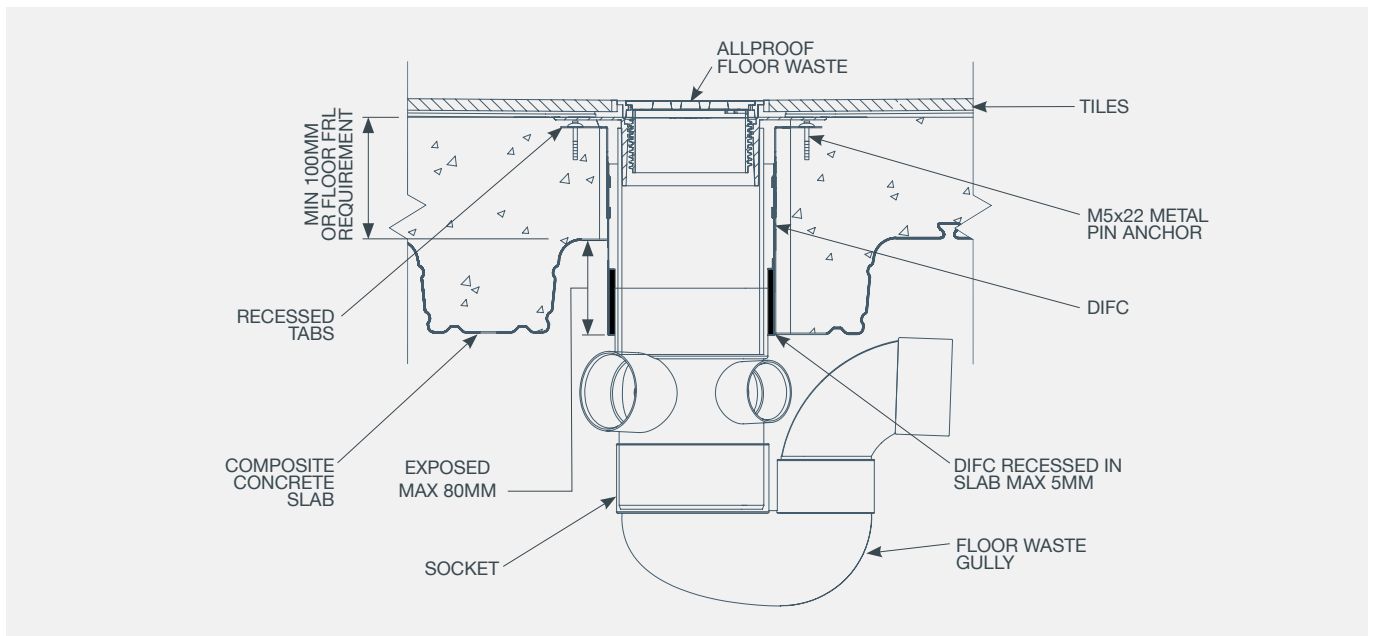
### ComFlor 80 - FTC 6341:

100/180 - Tested on a composite concrete floor with 100mm minimum thickness and 180mm maximum thickness. Profile change of 80mm.

### ComFlor 210 - FTC 11267:

70/280 - Tested on a composite concrete floor with 70mm minimum thickness and 280mm maximum thickness. Profile change of 210mm.

## COMPOSITE FLOOR WASTE INSTALLATION DETAILS:



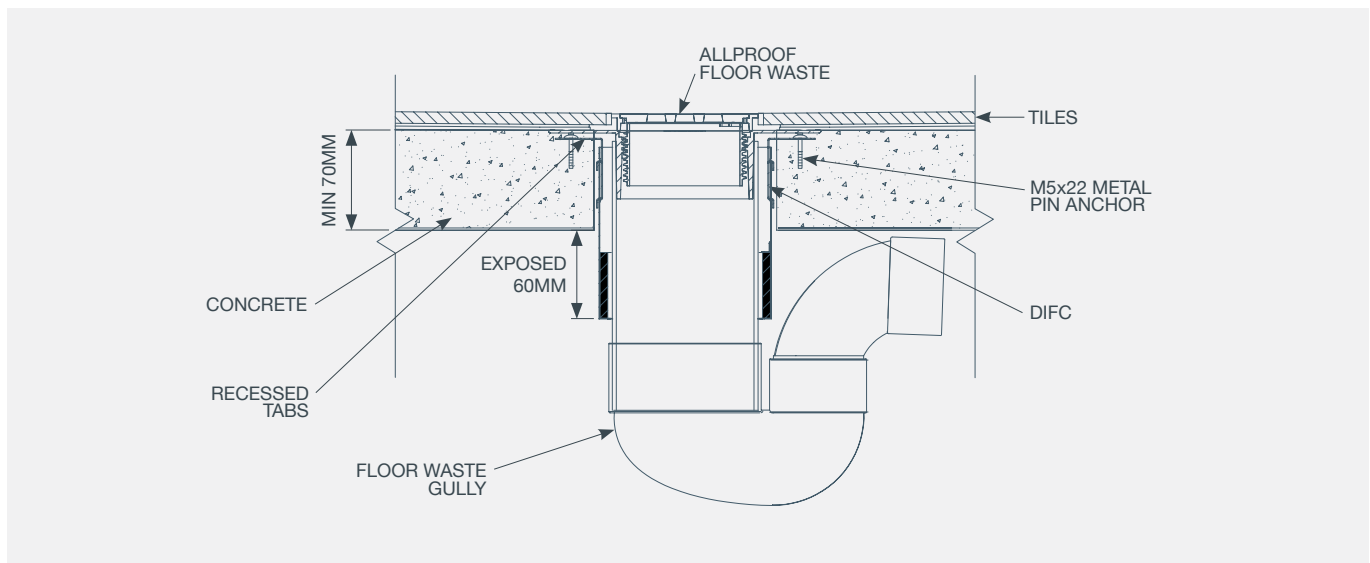
## DIFC FLAT SLAB TEST RESULTS:

NOMINAL PIPE SIZE (MM)	SLAB DEPTH (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	FLOOR FRL	FTC#
<b>D-BLUE PP-MD</b>						
50	70	1.8	DIFC50	82	-/90/60	6017
75	70	2.3	DIFC65	112	-/90/45	6017
110	70	3.4	DIFC100	142	-/90/60	6017
150	70	4.9	DIFC150	192	-/90/60	6017
<b>PP-R PLASTIC PIPE (SDR 11)</b>						
32	70	2.9	DIFC32	57	-/90/60	6017
40	70	3.7	DIFC40	72	-/90/60	6017
110	70	10	DIFC100	142	-/45/60	6017
125	70	11.4	DIFC125	162	-/45/45	6017
<b>PP-R PLASTIC PIPE (SDR 9)</b>						
32	70	4.1	DIFC32	57	-/90/60	6017
40	70	3.7	DIFC40	72	-/90/60	6017
110	70	10	DIFC100	142	-/90/60	6017
125	70	11.4	DIFC125	162	-/90/60	6017

## 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	FTC#
<b>PVC PLASTIC PIPE</b>							
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:



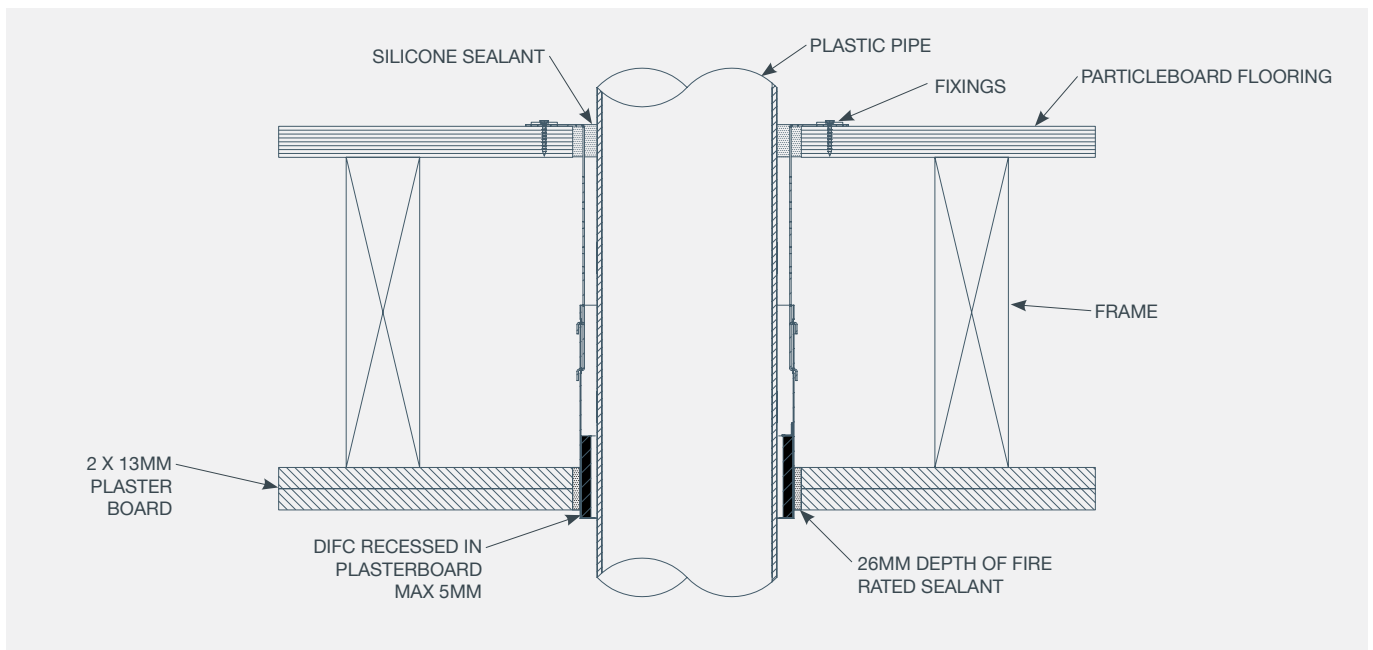
## 2 X 13MM PLASTERBOARD CEILING TEST RESULTS:

NOMINAL PIPE SIZE (MM)	NOMINAL PIPE WALL THICKNESS (MM)	PRODUCT CODE	PENETRATION HOLE SIZE (MM)	PLASTERBOARD WALL FRL	FTC#
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

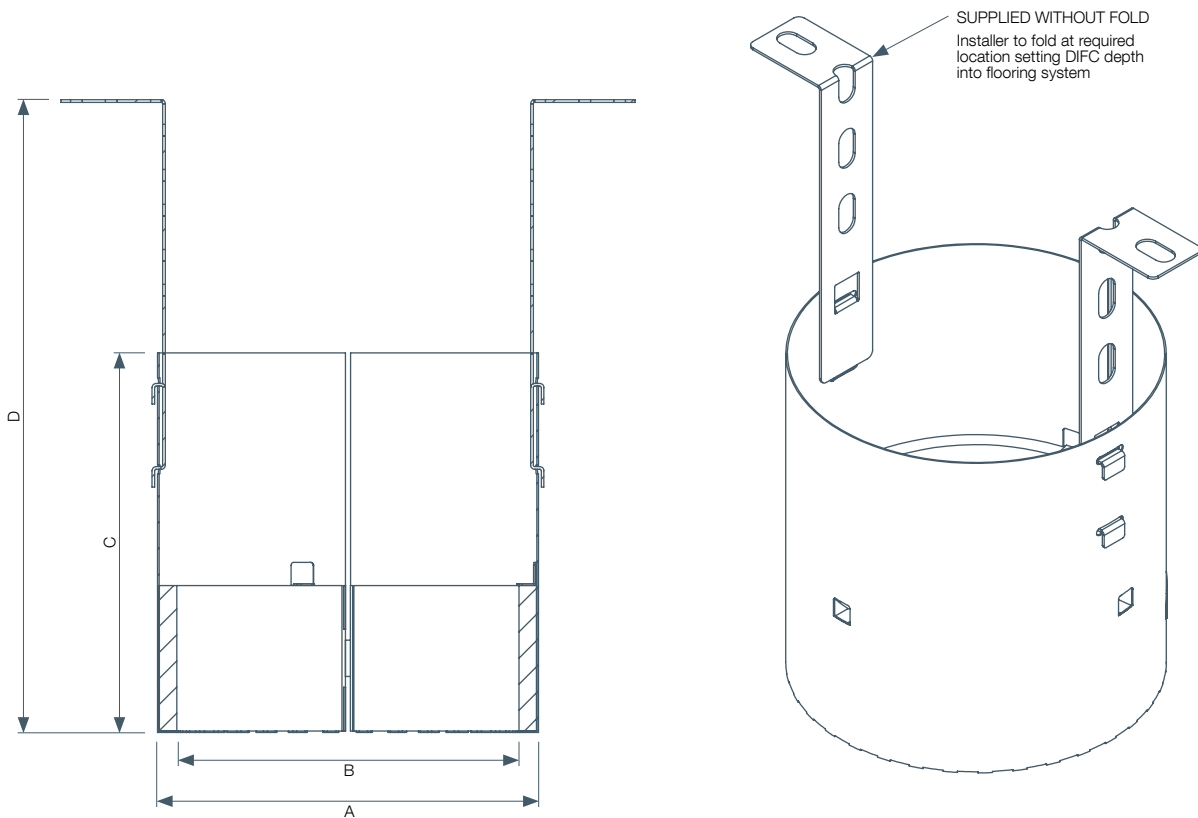
Tested using a 190mm deep timber framing with two layers of 13mm fire rated plasterboard on the exposed side of the frame and 19mm particleboard flooring on the unexposed side of the frame. A total floor-ceiling thickness of 235mm. DIFCs fixed using 6Gx32mm plasterboard screws with M6x16 washers into 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	OUTER DIAMETER (A)	INNER DIAMETER (B)	CYLINDER LENGTH (C)	MIN - MAX DEPTH (D)
<b>FLOOR DEPTHS UPTO 210MM</b>				
DIFC32 X210	48	35	130	130 - 210
DIFC40 X210	66	53	130	130 - 210
DIFC50 X210	79	66	130	130 - 210
DIFC65 X210	92	78	130	130 - 210
DIFC80 X210	106	92	130	130 - 210
DIFC100 X210	131	118	130	130 - 210
DIFC125 X210	154	133	130	130 - 210
DIFC150 X210	187	161	130	130 - 210
<b>FLOOR DEPTHS UPTO 300MM</b>				
DIFC32 X300	48	35	130	130 - 300
DIFC40 X300	66	53	130	130 - 300
DIFC50 X300	79	66	130	130 - 300
DIFC65 X300	79	78	130	130 - 300
DIFC80 X300	106	92	130	130 - 300
DIFC100 X300	131	118	130	130 - 300
DIFC125 X300	154	133	130	130 - 300
DIFC150 X300	187	161	130	130 - 300



# 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:

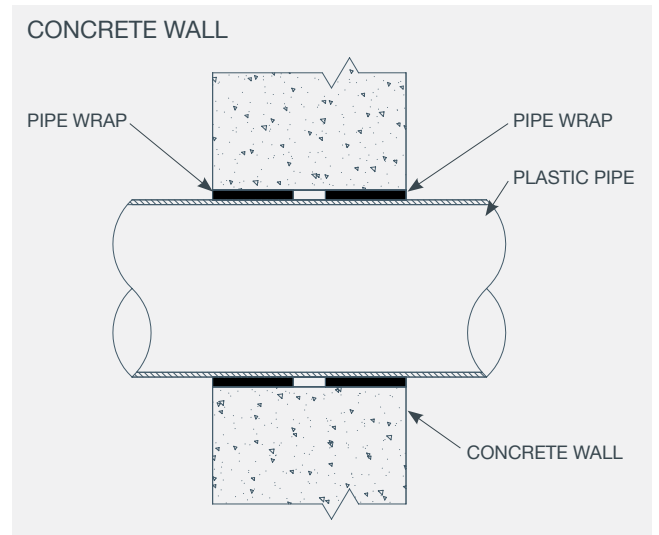
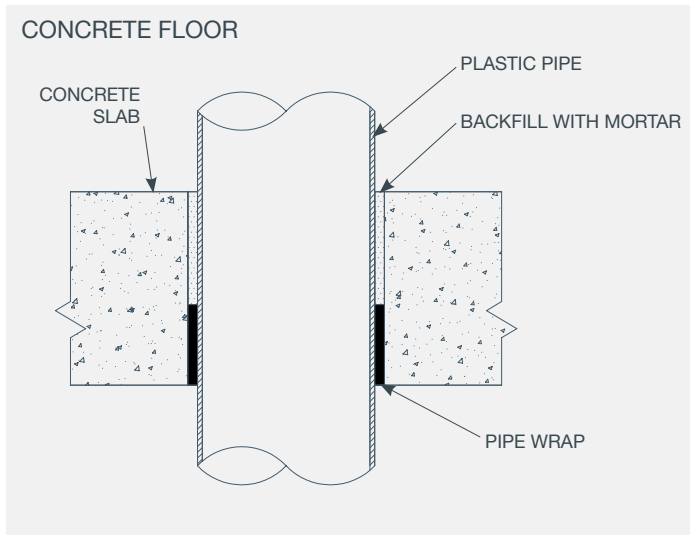
- Water resistant
- Advanced intumescent technology allows smaller core holes
- Simple to use - easy to install
- For use on various plastic pipes
- Removable “pipe wrap installed” label for pipe work/wall

## 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	FTC#	WALL FRL	FTC#
<b>PVC PLASTIC PIPE</b>								
40	150	2.0	FW40	62	-/120/120	644	-/120/120	717
50	150	2.2	FW50	72	-/120/120	615	-/120/120	615
65	150	2.7	FW65	87	-/180/180	642	-/120/120	716
80	150	2.9	FW80	102	-/120/120	615	-/180/180	610
100	150	3.2	FW100	127	-/120/120	642	-/180/120	610
150	150	4.5	FW150	192	-/90/90	608	-/120/120	614
<b>HDPE PLASTIC PIPE</b>								
50	150	3.0	FW50	67	-/120/120	609	-/120/120	614
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	609		
90	150	3.5	FW100	107	-/120/120	11057		
110	150	4.3	FW100	127	-/120/120	609		
150	120	6.2	FW150 + PR150*	192	-/180/180	692		
<b>PP-R PLASTIC PIPE (SDR 7.4)</b>								
40	150	5.5	FW40	57	-/120/120	609	-/180/180	610
75	150	10.3	FW80	92	-/120/120	609	-/180/180	610
110	150	15.1	FW100	127	-/120/120	609	-/120/120	614
125	150	17.1	FW125	152			-/180/180+	610
<b>RAUPIANO PP-MD</b>								
40	120	1.8	FW40	57	-/120/120	639		
50	120	1.8	FW50	67	-/120/120	639		

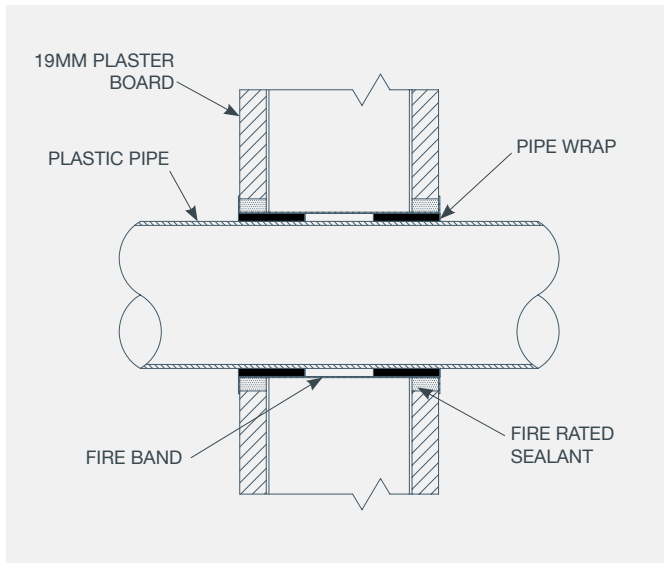
\*0.9 Perforated ring fixed to underside of slab. Contact Allproof for details.  
 + 75mm Wide Double Layer Pipe Wrap Used.

# 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*	FTC#
<b>PVC PLASTIC PIPE</b>					
40	2.0	FB40+FW40	65	-/120/90	607
65	2.7	FB65+FW65	90	-/120/90	607
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	612
75	3.0	FB75+FW75	95	-/120/90	612
100	4.3	FB100+FW100	130	-/120/90	615
<b>PP-R (SDR 7.4)</b>					
40	5.5	FB40+FW40	60	-/120/120	613
63	8.6	FB65+FW65	83	-/120/90	613
110	15.1	FB100+FW100	130	-/120/90	613

\*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 AND TESTED FOR THE REAL WORLD





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