Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A: Single FB750 Intubatt up to 120 Integrity, 60 Insulation

1. Cut FB750 Intubatt to tightly fit into aperture.
2. Coat FB750 Intubatt edges and fit into opening at required position
3. Note: Adoption of additional layer of FB750 Intubatt as per "Detail D" will provide up to 120 minutes insulation and integrity.

Detail B – Single FB750 Intubatt within FB750 Intubatt lined opening rated as Detail A

1. Cut FB750 Intubatt to form lining to aperture to bridge cavity, ensuring FB750 Intubatt finishes flush with face of concrete / block-work wall.
2. Bond FB750 Intubatt lining to the opening with FS702 Intumastic
3. Fit FB750 Intubatt into opening ensuring good bonding to framing and concrete / blockwork edge.
4. Cut FB750 Intubatt to tightly fit into FB760 Intubatt Lining
5. Note: Adoption of additional layer of FB750 Intubatt as per "Detail D" will provide up to 120 minutes insulation and integrity.

Detail C – Double pattress FB750 Intubatt rated up to 120 Integrity and Insulation

1. Cut FB750 Intubatt to required size and shape, ensuring the FB750 Intubatt will overlap the concrete/ blockwork wall a minimum of 75mm around the opening.
2. Apply FS702 Intumastic to concrete/blockwork where the FB750 Intubatt is to be fitted, to bond FB750 Intubatt to concrete / blockwork.
3. Firmly press FB750 Intubatt to concrete/blockwork to ensure bond.
4. Fix the FB750 Intubatt to the concrete / blockwork using minimum 75mm long steel screws and 25mm diameter steel washers. Fixings should not exceed 50mm from any edge and not exceeding 200mm centres.
5. Repeat to opposite side of the wall if required.

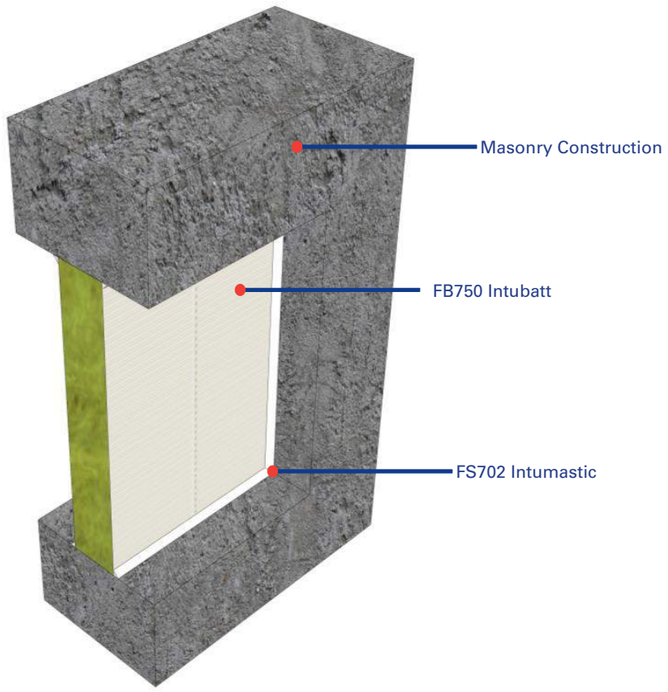
Detail D – Double FB750 Intubatt up to 240 Integrity and Insulation

1. Cut FB750 Intubatt to tightly fit into aperture
2. Coat FB750 Intubatt edges and fit into opening ensuring FB750 Intubatt finishes flush with plasterboard face.
3. Repeat to opposite side of the wall if required.

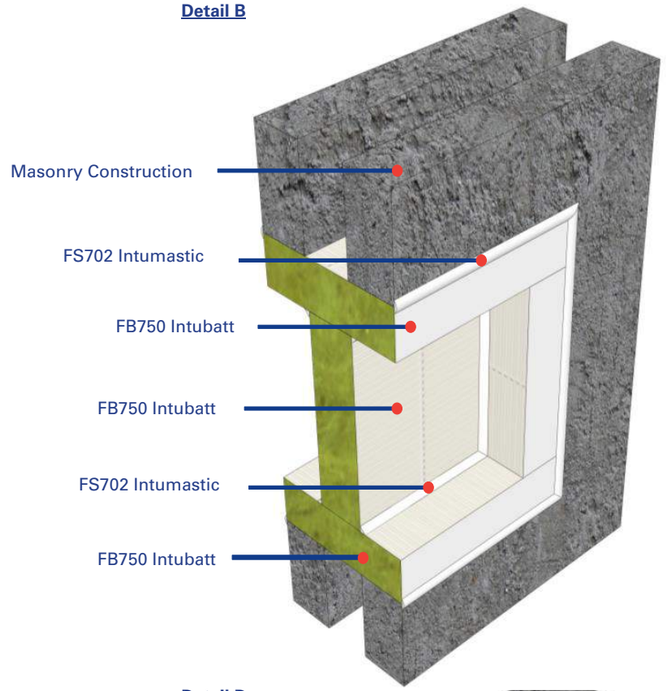
General

1. Coat all joints, exposed edges of FB750 Intubatt and damages to coating with FS702 Intumastic Brush Grade.
2. Apply FS702 Intumastic bead to all FB750 Intubatt Interfaces.

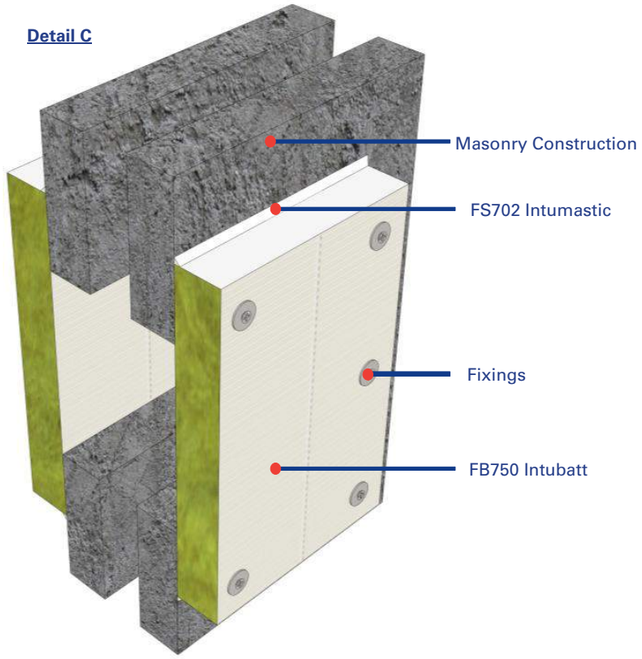
Detail A



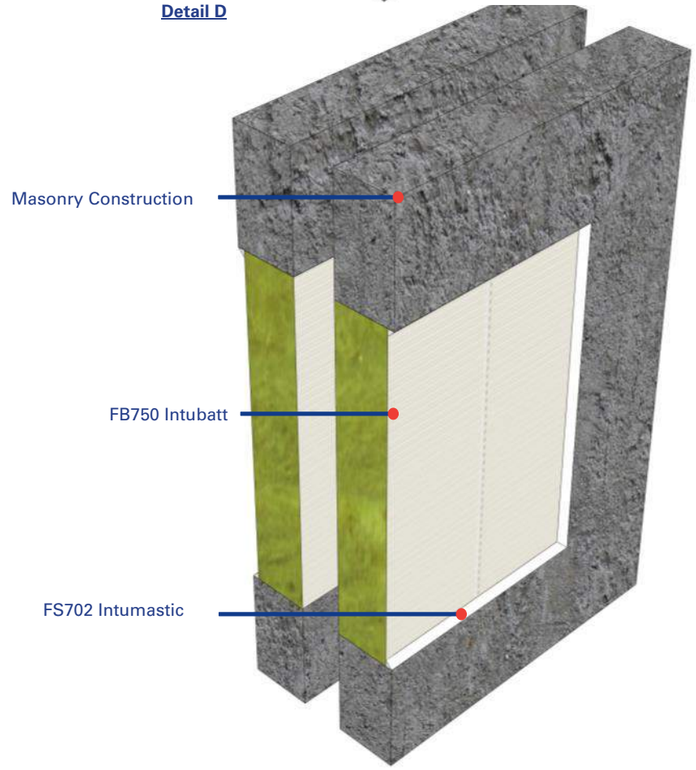
Detail B



Detail C



Detail D



Test Information:

Test: BSEN1366 / BS476

Products:

FB750 Intubatt & FS702 Intumastic

Scenario:

Penetration through conceret / blockwork wall construction

Penetrations:

Various penetrations tested, see drawings TBC for specific installation guidelines

Void Size:

1190mm x unlimited length above FB750 Intubatt length 1200 framework required.

Fire Resistance:

Tested up to 240 minutes. Please see specific detail for fire rating. Fire ratings contained herin are based upon plain seals only.

Acoustic:

Test: BRE 224463
FB750 Intubatt 1, Two Layers
Void 1.0m2 59dB

Test: BM Trada Z/12017
FB750 Intubatt 2 One Layer
Void 0.6m2 36dB

FB750 Intubatt 2 Two Layer
Void 0.3m2 57dB
Void 0.6m2 50dB

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

Openings within blockwork/concrete wall construction.

Drawing Reference No:

PS-001

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com@cpg-europe.com

2020-04 v01

Nullifire
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Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- framed & lined, single FB750 Intubatt up to 120 Minutes integrity & 60 insulation

1. Cut FB750 Intubatt to tightly fit in to aperture. Coat FB750 Intubatt edges and fit in to opening at required position.

Note: adoption of additional layer of FB750 Intubatt as per detail "d" will provide up to 120 minutes insulation and integrity

Detail B – single FB750 Intubatt with FB750 Intubatt lined opening rated as detail a

1. Cut FB750 Intubatt to form lining to framed aperture, ensuring FB750 Intubatt finishes flush with face of plasterboard.
2. Bond FB750 Intubatt lining to framed opening with FS702 Intumastic.
3. Fit FB750 Intubatt in to opening ensuring good bonding to framing and plasterboard edge.
4. Cut FB750 Intubatt to tightly fit in to FB750 Intubatt lining.

Note: adoption of additional layer of FB750 Intubatt as per detail "d" will provide up to 120 minutes insulation and integrity

Detail C- unframed, unlined, double pattress FB750 Intubatt rated up to 120 minutes integrity & insulation

1. Cut FB750 Intubatt to required size and shape, ensuring the FB750 Intubatt will overlap the plasterboard a minimum of 75mm around the opening.
2. Apply FS702 Intumastic to plasterboard where the FB750 Intubatt is to be fitted, to bond FB750 Intubatt to plasterboard and FB750 Intubatt to FB750 Intubatt
3. Firmly press FB750 Intubatt to plasterboard to ensure bond.
4. Fix the FB750 Intubatt to the plasterboard using minimum 75mm long steel screws and 25mm diameter steel washers. Fixings should not exceed 50mm from any edge and not exceed 200mm centres.

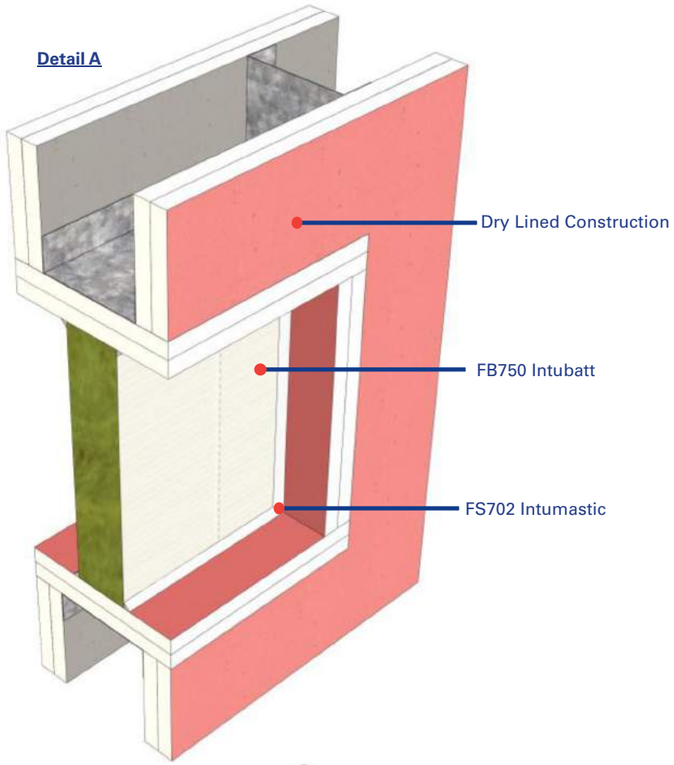
Detail D - Framed oepning, two layers of FB750 Intubatt suitable for up to 120 minutes.

1. Cut FB750 Intubatt to tightly fit in to framed aperture.
2. Coat FB750 Intubatt edges and fit in to opening, ensuring FB750 Intubatt finishes flush with plasterboard face.
3. Repeat to the opposite side of the wall if required.

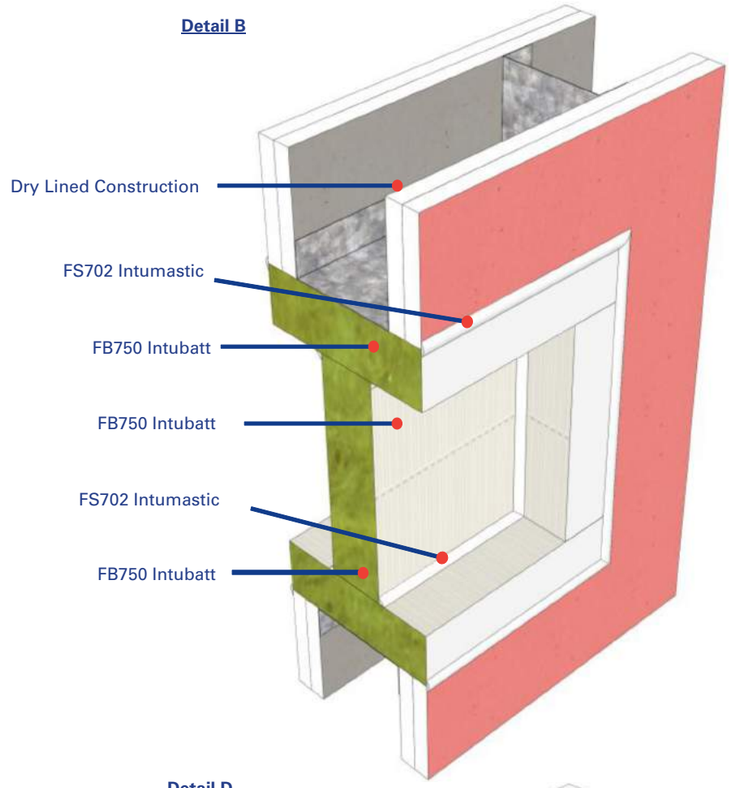
General

1. Coat all joints, exposed edges of FB750 Intubatt and damages to coating with FS702 Intumastic brush grade.
2. Apply FS702 Intumastic bead to all FB750 Intubatt interfaces/ joints.

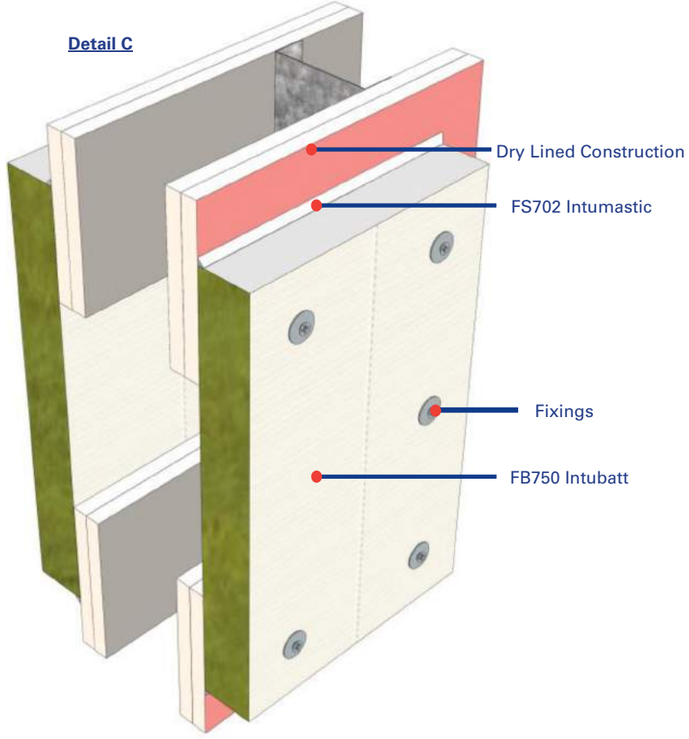
Detail A



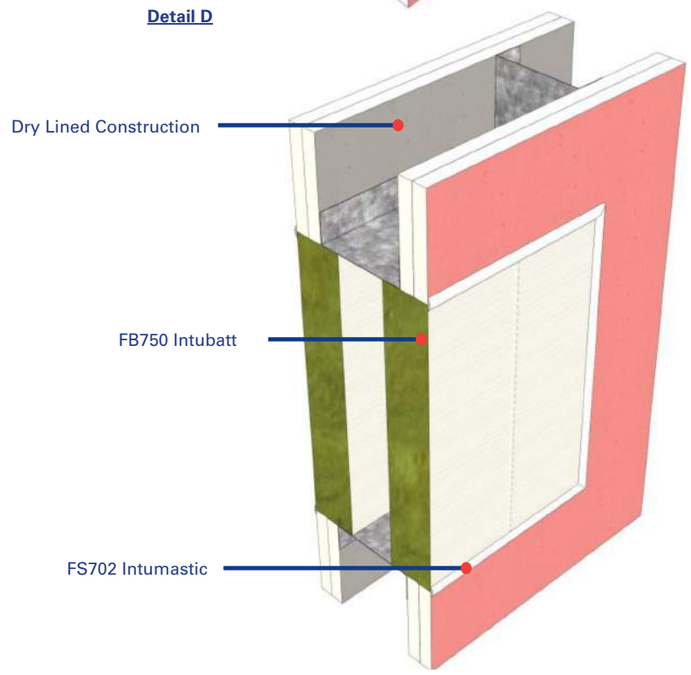
Detail B



Detail C



Detail D



Test Information:

Test: BSEN1366 / BS476

Products:

FB750 Intubatt & FS702 Intumastic

Scenario:

Penetration through dry-lined wall construction

Penetrations:

Various penetrations tested, see drawings PS006 to TBC for specific installation guidelines

Void Size:

1190mm x unlimited length. Above FB750 Intubatt length 1200 framework required.

Fire Resistance:

Tested up to 120 minutes.
Please see specific detail for fire rating. Fire ratings contained herein are based upon plain seals only.

Acoustic:

Test: BRE 224463
FB750 Intubatt 1, Two Layers
Void 1.0m2 59dB

Test: BM Trada Z/12017
FB750 Intubatt 2 One Layer
Void 0.6m2 36dB

FB750 Intubatt 2 Two Layer
Void 0.3m2 57dB
Void 0.6m2 50dB

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

Openings within Dry Lined Wall Construction.

Drawing Reference No:

PS-002

A3

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- Single FB750 Intubatt up to 120 integrity, 60 Insulation

1. Cut FB750 Intubatt to tightly fit into aperture.
2. Coat FB750 Intubatt edges and fit into opening at required position.

Detail B – Single FB750 Intubatt Patress, rated as Detail A

1. Cut FB50 Intubatt to required size and shape, ensuring the FB750 Intubatt will overlap the concrete floor a minimum of 75mm around the opening.
2. Apply FS702 Intumastic to concrete where the FB750 Intubatt is to be fitted, to bond FB750 Intubatt to concrete.
3. Firmly press FB750 Intubatt to concrete to ensure bond.
4. Fix the FB750 Intubatt to the concrete using minimum 75mm long steel screws and 25mm diameter steel washers. Fixings should not exceed 50mm from any edge and not exceeding 200mm centres.

Detail C- Double FB750 Intubatt rated up to 120 integrity and insulation.

1. Apply "detail A" instructions from both layers.
2. Bond the two layers together with FS702 Intumastic prior to installing second layer.

Detail D - Double FB750 Intubatt Single layer patress rated up to 120 integrity and insulation.

1. Apply "Detail A" instructions for first layer and fit flush with the required face of floor.
2. Apply "detail B" instructions for second layer.
3. Bond the two layers together with FS702 Intumastic prior to installing second layer.

Detail E - Double FB750 Intubatt rated up to 120 integrity, 60 insulation.

1. Cut 20mm x 45mm softwood timber battens and fix to sides of concrete aperature using suitable steel fixings at 300mm centres, not exceeding 50mm from each end/cut.
2. Cut the FB750 Intubatt to the correct size, a tight fir is not required, tested with a loose fitting FB750 Intubatt.
3. Fix the FB750 Intubatt to the timber battends using minimum 75mm long steel screws and 25mm diameter steel washers, fixings should not exceed 50mm from any edge and not exceeding 300mm centres.

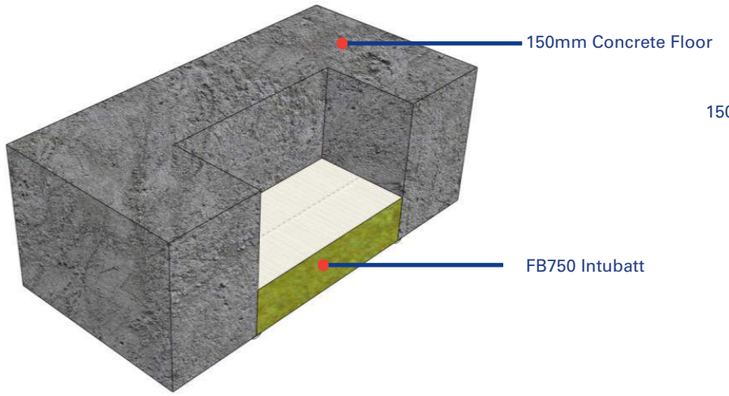
Detail F - Double FB750 Intubatt patress up to 120 integrity and Insulation.

1. Apply "Deatil B" instructions for both layers.
2. Ensure fixings are a minimum of 130mm long for second layer.
3. Bond the two layers together with FS702 Intumastic prior to installing second layer.

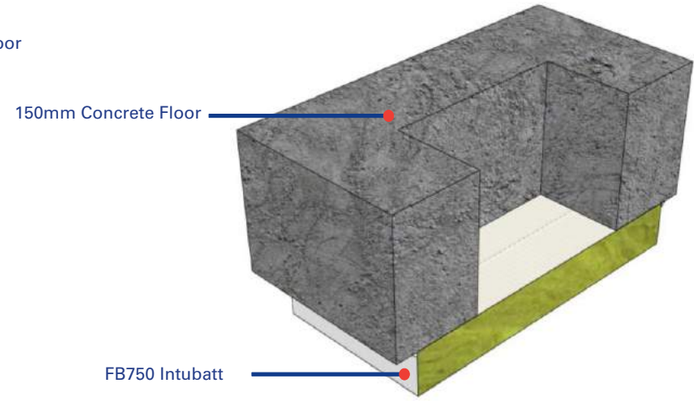
General

1. Coat all joints, exposed edges of FB750 Intubatt and damages to coating with FS702 Intumastic brush grade.
2. Apply FS702 Intumastic bead to all FB750 Intubatt interfaces/ joints.

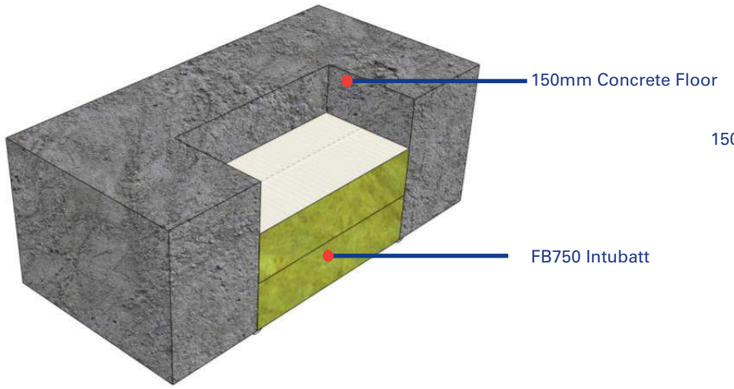
Detail A



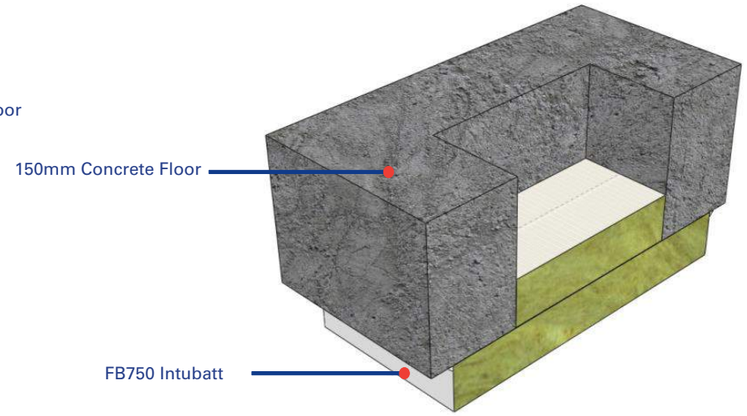
Detail B



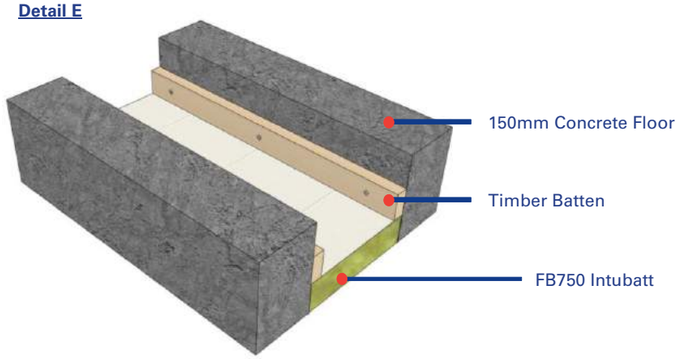
Detail C



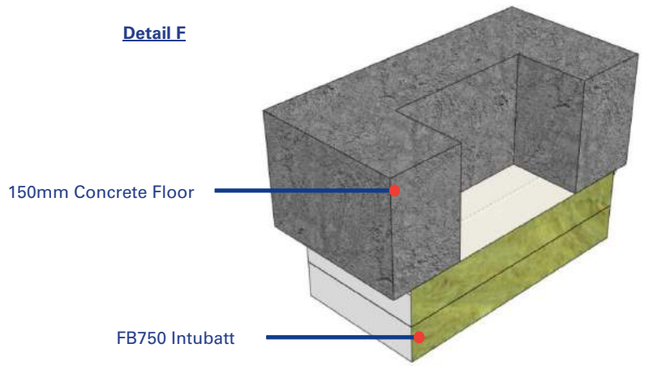
Detail D



Detail E



Detail F



Test Information:

Test: BSEN 1366 / BS 476

Products:

FB750 Intubatt & FS702 Intumastic

Scenario:

Penetration through concrete / blockwork wall construction.

Penetrations:

Various penetrations tested, see drawings TBC for specific installation guidelines.

Void Size:

1190mm x unlimited length above FB750 Intubatt length 1200 framework required.

Fire Resistance:
Tested up to 120 minutes.
Please see specific detail for fire rating. Fire ratings contained herein are based upon plain seals only,

Acoustic:

Test: BRE 224463
FB750 Intubatt 1, Two Layers
Void 1.0m2 59dB

Test: BM Trada Z/12017
FB750 Intubatt 2 One Layer
Void 0.6m2 36dB

FB750 Intubatt 2 Two Layer
Void 0.3m2 57dB
Void 0.6m2 50dB

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

Openings within concrete floor construction FB750 Intubatt

Drawing Reference No:

PS-003

A3

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Details A, B & D- Loadbearing seals up to 300mm width unlimited length or 1100mm x 1100mm (1.21m2)

1. Cut 50mm 140 or 180kg Nullifire FI140 Shutter Slab, to tightly fit within aperture.
2. Fit FI140 Shutter Slab into aperture to provide a minimum measurement of 100mm from the top edge of floor slab.
3. Select required quantity of FR230 Intucompound for void fill, based approximately upon 3.75 bags per 1m x 1m opening to achieve 100mm thickness.
4. Mix approxminately 25% of the overall volume of FR230 intucompound with water, approximately upon 3.75 bags per 1m x 1m opening to achieve 100mm thickness
5. Trowel into void, ensure filling any voids where FR230 Intucompound may bleed through shuttering and allow to cure for approximately 30 minutes.
6. Mix the remaining volume of FR230 Intucompound with water, approximately 1.0 parts water to 2 parts FR230 Intucompound.
7. Pour mixed FR230 Intucompound into aperture until flush with the top side of the floor slab.
8. Leave to cure. Fully cured in 30 days, this will depend upon atmospheric conditions.

Note to Detail D:
A stiffer mix of FR230 Intucompound may be used to enable vertical installation. If using FI140 Shutter Slab, the product may be left installed, proven in floor testing. However, if another form of shuttering is utilise it must be removed.

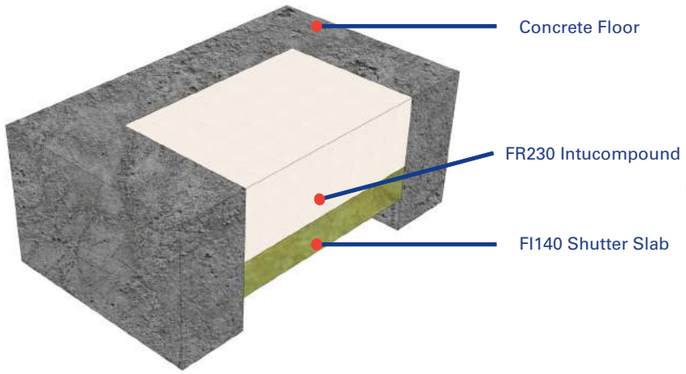
Detail C- loadbearing seals above 300mm width or above 1100mm x 1100mm (1.21m2) floors only.

1. Cut 50 x 50 x 2mm galvanised angle to perimeter of aperture and fix at 300 centres, using FFS 82mm self drill, to form 150mm depth from the top side of concrete floor to face of angle.
2. Cut 50 x 50 x 2mm galvanised angle to form intermediate back to back angle detail across the span of seal, and position to centres as highlighted within table 1 as per span requirements.
3. Fix back to back angles and junctions with suitable metal fixings.
4. Cut 50mm 140 or 180kg, FI140 Shutter Slab to tightly fit within framework.
5. Fit FI140 Shutter Slab into framework to provide a minimum measurement of 100mm from the top edge of floor slab.
6. Follow instructions from details A & B instructions 4 to 9 as above.

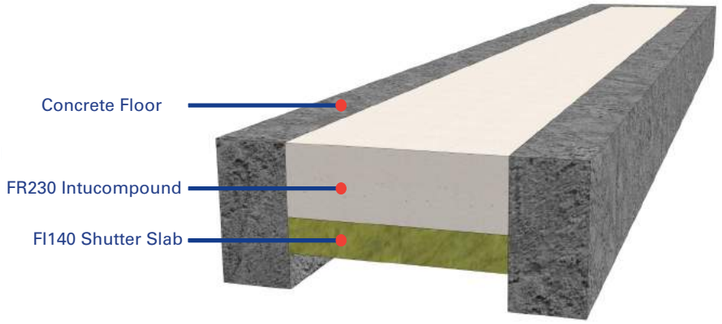
Table 1:

Span	Back to Back Angle Centre
Up to 0.3m or 1.21m2	Not Required
Over 0.3m or 1.21m2 to 1.3	600mm
1.3m to 2.0m	400mm

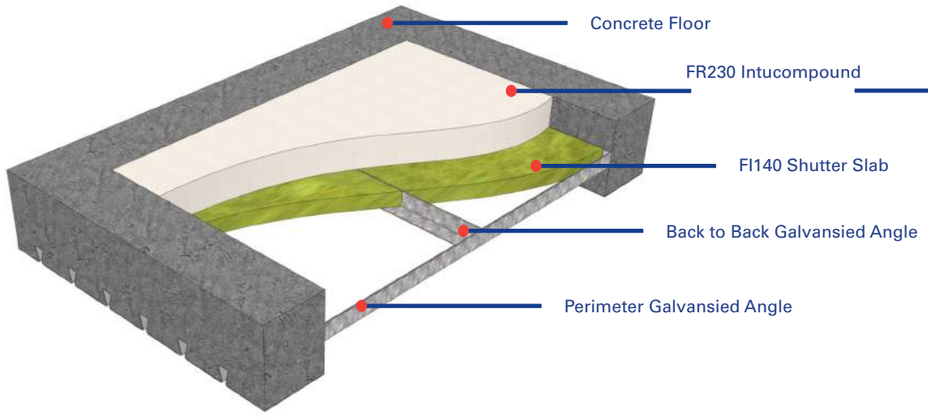
Detail A - Loadbearing seals up to 1100mm x 1100mm (1.21m2)



Detail B - Loadbearing seals up to 300mm width unlimited length



Detail C - Over 300mm width or above 1100mm x 1100mm (1.21m2)



Detail D - Seals up to 1100mm x 1100mm (1.21m2)

Test Information:

Test: BSEN 1366 / BS476

Products:

FR230 Intucompound and FI140 Shutter Slab

Scenario:

Loadbearing blank seal to concrete floor up to 2.5kN/m2 and wall

Penetrations:

As per Nullifire detail

Void Size:

Up to 2m span

Fire Resistance:
Up to

100mm Thick 240 Integrity
240 Insulation

Please see specific detail for fire rating. Fire ratings contained herein are based upon plain seals only.

Acoustic:

Up to 65dB.

FR230 Intucompound is loadbearing up to 2.5kN/m2 at 100mm thickness only, without rthe requirement for reinforcement when installed within voids that do not exceed 1.21m2, or 300mm width/depth. This is based upon all four sides of opening being rigid concrete construction.

Service penetrations must be assessed for movement/thermal expansion in accordance with Document B.

Please ensure all technical data is digested and understood prior to installation of Nullifire products.

Drawing Title:

Openings within concrete floor construction

Drawing Reference No:

PS-004
A3

Construction Products Group Europe

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2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- Linear opening up to 35mm, dry lined walls up to 120 minutes integrity and insulation, concrete blockwork walls up to 240 minutes integrity and insulation.

1. Select correct size polyethylene backer to tightly fit into aperture allowing for movement requirement and cut to required length (e.g. if void is 35mm and movement requirement is +15% (30mm overall) the backer must be 45mm, this allows for 5mm expansion (15% at 35mm) and 5mm additionally to maintain the backer at full extension of seal.
2. Fit polyethylene backer into opening to form reccess (as per table below) from front face of wall.
3. Fill recess until flush with wall and trowl smooth
4. Repeat to the opposite side of the wall.

Table 1:

Void Size	FS702 Intumastic / FS703 Silicone Depth
35mm	25mm
25mm	25mm
10mm to 25mm	1 to 1 ratio
Up to 10mm	10mm

Note: where wall is solid concrete blockwork wall detail is only required to one side or centrally.

Detail B- Linear opening up to 120 minutes insulation & integrity

1. Cut 50mm 64kg/m3 rock minearl fibre to tightly fit into the aperture alowing for movement requirement. E.g, if void is 100mm and movement requirement is +15% (30mm overall) the backer must be cut at 120mm, this allows for 15mm expansion (15% at 100mm) and 5mm additionally to maintain the backer at full extension of seal.
2. Fit 64kg/m3 rock mineral fibre into opening to form 3mm recess from front face of wall.
3. Fill reccess until flush with wall and trowel smooth
4. Repeat to the opposite side of the wall

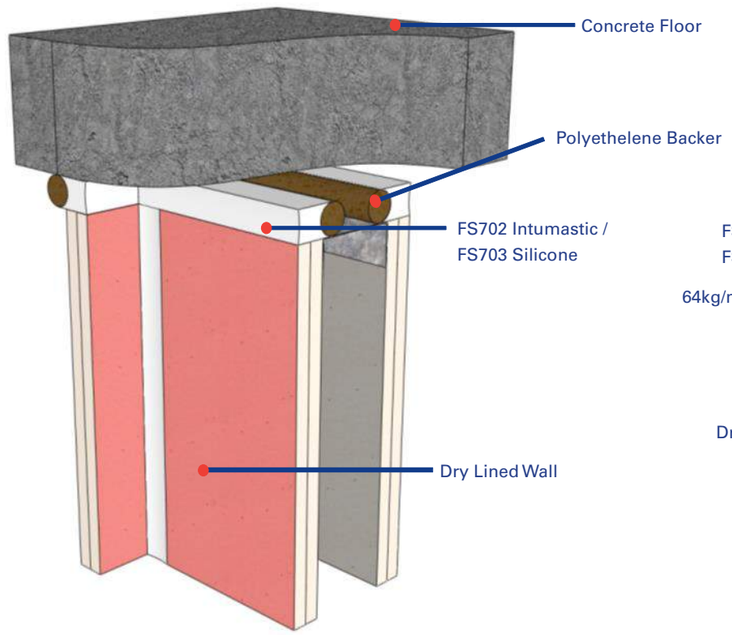
Note: where wall is solid concrete blockwork wall detail is only required to one side of centrally rock mineral fibre must be a minimum of 100mm thickness & FS702 Intumastic must be applied to both sides.

Detail C- Linear opening up to 200mm up to 120minutes insulation & integrity

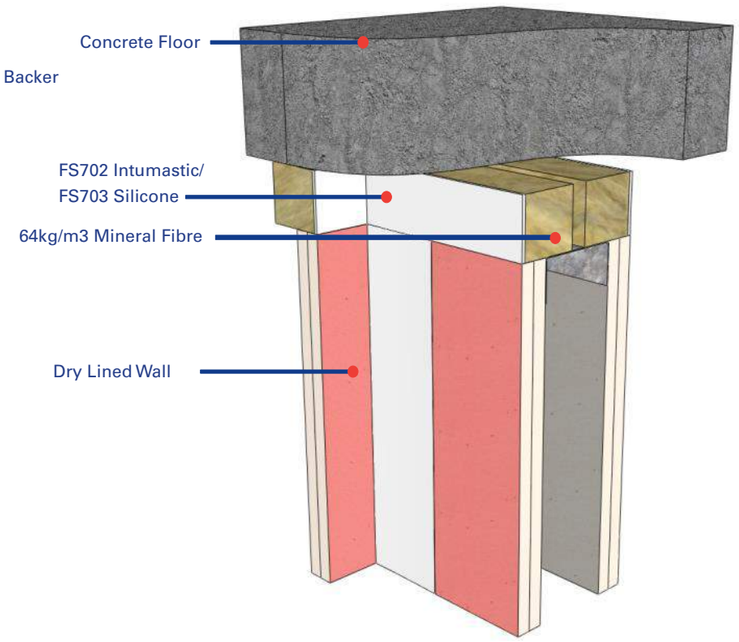
1. Cut 100mm 64kg/m3 rock mineral fibre to tightly fit into aperture allowing for movement requirement. Note 1 within detail A and B above applies.
2. Fit 64kg/m3 rock mineral fibre into opening to form 3mm recess from top face of floor.
3. Fill reccess until flush with floor and trowel smooth.

Mastic Seal	FS702 Intumastic / FS703 Silicone Linear M Per 310ml tube
3mm x 50mm	2.07
10mm x 10mm	3.10
12mm x 25mm	1.03
25mm x 25mm	0.50

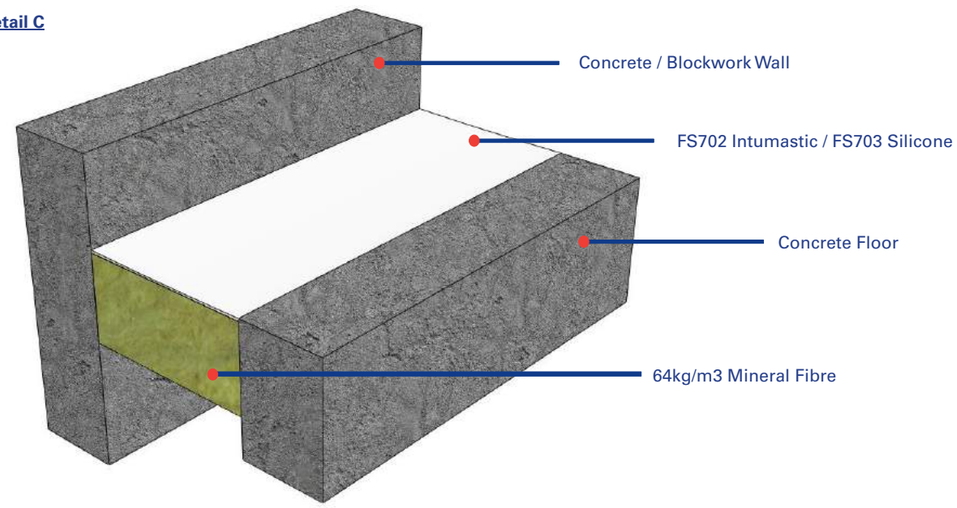
Detail A



Detail B



Detail C



Test Information:

Test: BSEN 1366 / BS476

Products:

FS702 Intumastic and FS703 Silicone

Scenario:

Linear seals to construction interfaces

Penetrations:

N/A

Void Size:

Detail A: Up to 35mm
Detail B: Up to 200mm
Detail C: Up to 200mm

Fire Resistance:
Tested up to 240 minutes

Movement:

FS702 Intumastic: Up to ± 15%
FS703 Silicone : Up to ± 25%

Acoustic:

Up to 35mm reinstate wall 35 to 200mm up to 55dB

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic.
Details may be applied to certain penetration seals, please see drawing sheet number TBC.

It is the responsibility of the purchaser to ensure suitability. If in doubt, please call a member of technical.

Drawing Title:

Linear seal to various wall and floor constructions.

Drawing Reference No:

PS-006
A3

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- Single layer FB750 Intubatt detail suitable for detail references PS-001 to PS-003 , 120 minutes integrity & 60 minutes insulation

1. Cut FB750 Intubatt as per detail references PS-001 to PS-003 and reference below.
2. Cut FP302 Intustrap in accordance with table below and pipe size.
3. Secure around pipe in line with proposed fire seal, ensuring the product is fully within the supporting product.
4. Form the product to tightly fit around the FP302 Intustrap, remembering to bond the FP302 Intustrap in position.
5. Apply FS702 Intumastic the FP302 Intustrap meets the product.
6. Repeat item 5 of the above to the opposite side of the wall.

Detail B- Double layer FB750 Intubatt detail suitable for detail references PS-001 to PS-003, 120 minutes integrity & 120 minutes insulation.

1. Follow detail A instructions and repeat to the opposite side of the wall.

Detail C & D - Annular opening up to 200mm as per detail reference PS-006, up to 120 minutes insulation & integrity, suitable for directly fitting into all wall and floor systems, direct fix to plasterboard requires a 0.7 guage metal sleeve, can also be fitted within PS-001 to PS-004.

1. Follow items 1 to 3 of the above within detail A.
2. Fit 60mm depth of 64kg/m3 rock mineral fibre into opening to form 3mm recess from face of substrate.
3. Fill recess with FS703 silicone / FS702 Intumastic until flush with substrate and trowel smooth.
4. Repeat to the opposite side of the wall. Floors require 60mm depth only and FS702 Intumastic / FS703 silicone to top face.

Detail E- FR230 Intucompound detail as per detail references PS-004, 120 minutes integrity & 120 minutes insulation.

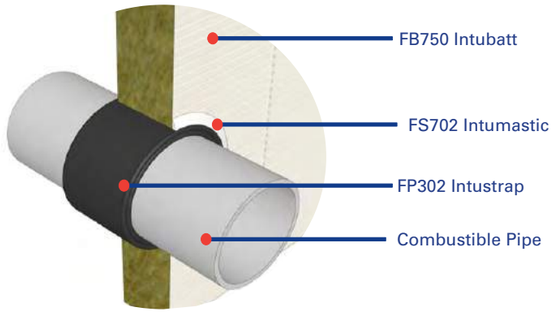
1. Follow detail refereneces PS-004, to point of installing FR230 Intucompound
2. Follow items 1 to 3 of the above within detail A.
3. Follow detail reference PS-004, from point of installing FR230 Intucompound.

Detail F- FR230 Intucompound detail as per detail references PS-004, 240 minutes integrity & 240 minutes insulation.

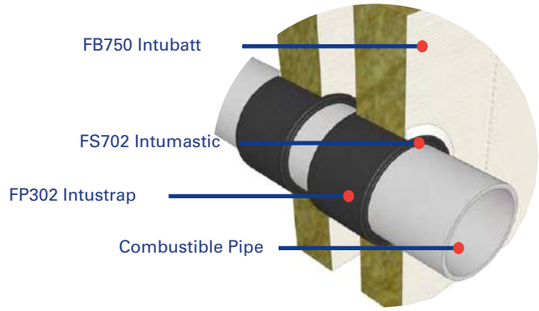
1. Follow detail references PS-004, to point of installing FR230 Intucompound.
2. Follow items 1 to 3 of the above within detail A and repeat for second row of FP302 Intustrap.
3. Follow detail reference PS-004, from point of installing FR230 Intucompound.

Note: FP302 Intustrap must always be fully within Nullifire product, if FP302 Intustrap extends past the product more than 10mm, this will constitute an incorrect installation.

Detail A

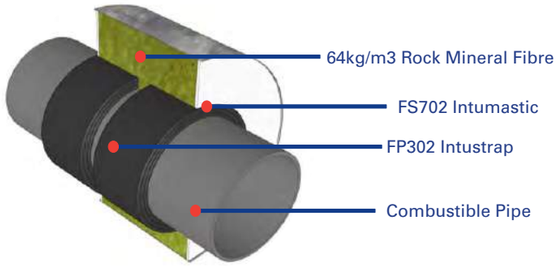


Detail B

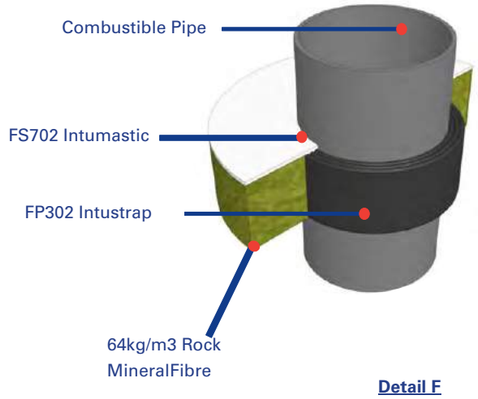


Main Detail

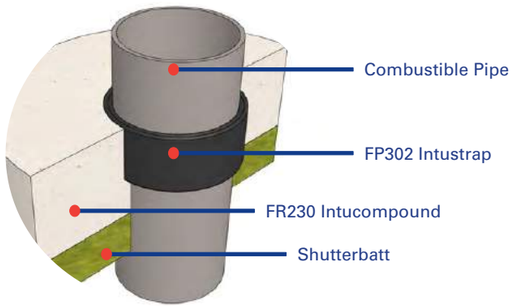
Detail C



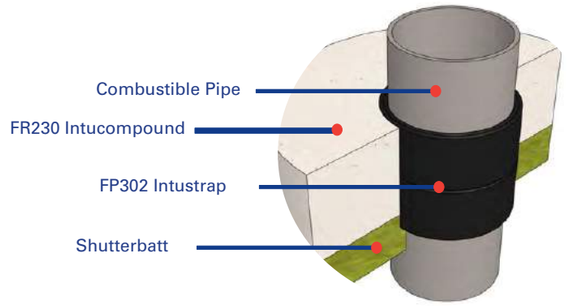
Detail D



Detail E



Detail F



Pipe Diameter	Number of FP302 Intustrap layers	Suitable in Wall FB750 Intubatt	Suitable in floor minimum FB750 Intubatt 70mm	Suitable in floor & wall soft-joint	Suitable in floor & wall FR230 Intucompound
Up to 55mm	1	✓	✓	✓	✓
Up to 82mm	2	✓	✓	✓	✓
Up to 110mm	3	✓	✓	✓	✓
Up to 160mm	4	x	✓	✓	✓

Test Information:

Test: BSEN 1366 / BS 476

Products:

FP302 Intustrap - to be read in conjunction with details PS-001 to PS-004

Scenario:

Combustible penetrations passing through varying substrates in various orientations.

Penetrations:

Combustible Pipes

Void Size:

See related details as noted above.

Fire Resistance:
Tested up to 240 minutes

Movement Detail C & D only:

FS702 Intumastic: Up to ± 15%
FS703 silicone: Up to ± 25%

Acoustic:

Consult suitably quailified acosutic engineer.

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic.

Details may be applied to standard void seals, please see drawing sheet PS-001 to PS-005.

It is the responsibility of the purchaser to ensure suitability. If in doubt, please call a member of the technical team.

Drawing Title:

FP302 Intustrap to Combustible Penetration Wall & Floor

Drawing Reference No:

PS-007
A3

Construction Products Group Europe

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2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- Single layer FB750 Intubatt detail suitable for detail references PS-001 to PS-003, 120 minutes integrity & 60 minutes insulation.

1. Cut FB750 Intubatt as per detail references PS-001 to PS-003 and reference below.
2. Cut FP302 Intustrap to form 2 layers.
3. Secure aroud insulated pipe in line with proposed fire seal, ensuring the product is fully within the supporting product.
4. Form the product to tightly fir around the FP302 Intustrap, remebering to bond the FP302 Intustrap in position.
5. Apply FS702 Intumastic where the FP302 Intustrap meets the product.
6. Repeat item 5 of the above to the opposite side of the wall.

Detail B- Double layer FB750 Intubatt detail suiatble for detail references PS-001 to PS-003, 120 minutes integrity 7 120 minutes insulation.

1. Follow detail A instructions and repeat to the opposite side of the wall.

Detail C & D - Annular opening up to 200mm as per detail refences PS-005, up to 120 minutes insulation & integrity, suitable for directly fitting into all wall and floor systems, direct fix to plasterboard requires a 0.7 gauge metal sleeve, can also be fitted within PS-001 to PS-004.

1. Follow items 2 to 3 of the above within detail A.
2. Fit 60mm depth of 64kg/m3 rock mineral fibre into opening to form 3mm recess from face of substrate.
3. Fill recess with FS703 Intsuil / FS702 Intumastic until flush with substrate and trowel smooth.
4. Repeat to the opposite sie of the wall. Floors require 60mm depth only and FS702 Intumastic / FS703 silicone to top face.

Detail E- FR230 Intucompound detail as per detail refences PS-004, 240 minutes integrity & 240 minutes insulation.

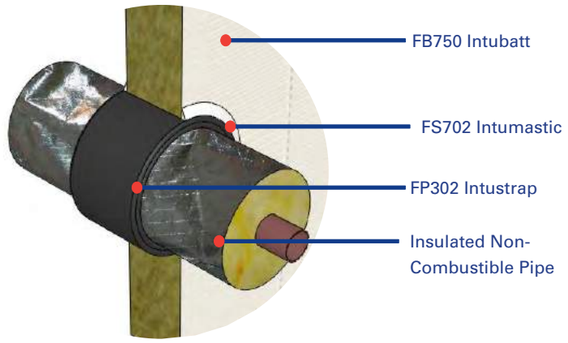
1. Follow detail references PS-004, to point of installing FR230 Intucompound
2. Follow items 1 to 3 of the above within detail A
3. Follow detail references PS-004, from point of installing FR230 Intucompound.

Detail F- FR230 Intucompound detail as per detail refences PS-004, 240 minutes integrity & 240 minutes insulation.

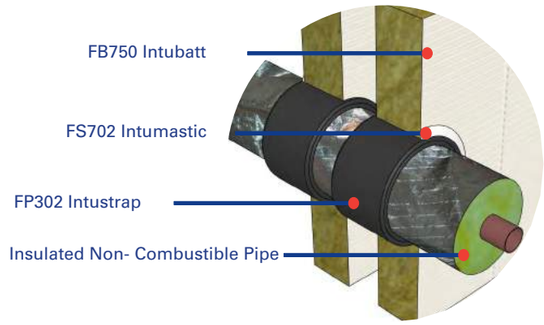
1. Follow detail references PS-004, to point of installing FR230 Intucompound.
2. Follow items 2 to 3 of the above within detail A
3. Follow detail reference PS-004, from point of installing FR230 Intucompound.

Note: FP302 Intustrap must always be fully within Nullifire product, if FP302 Intustrap extends past the product more than 10mm, this will constitute an incorrect installation.

Detail A

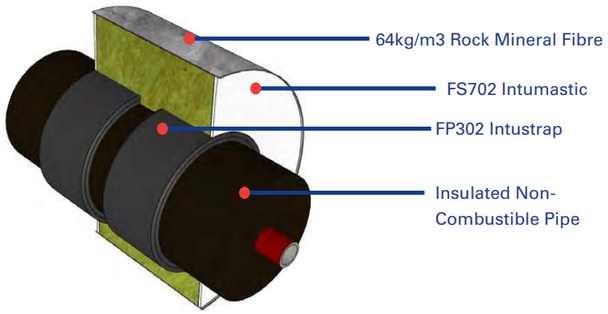


Detail B

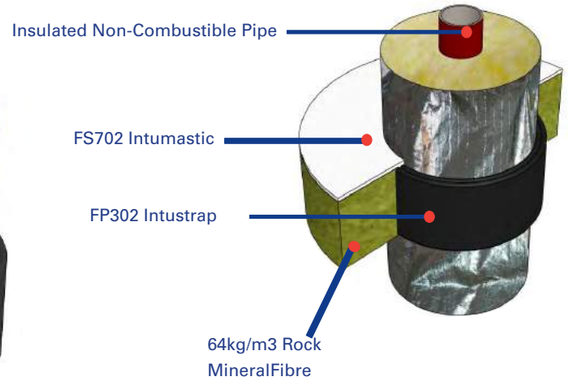


Main Detail

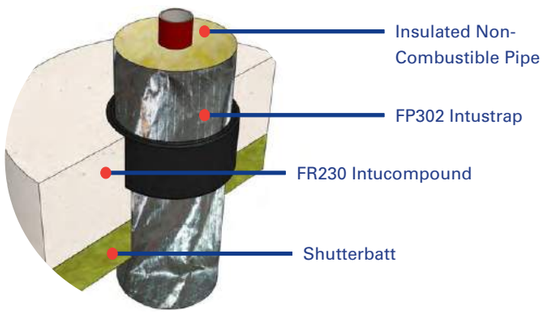
Detail C



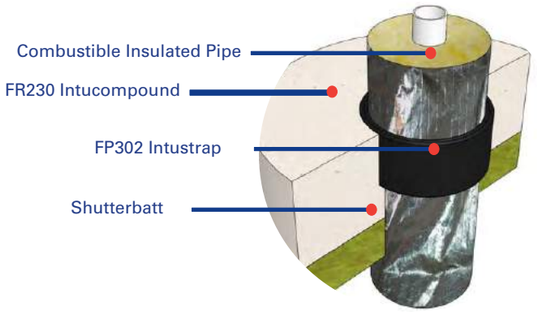
Detail D



Detail E



Detail F



Test Information:

Test: BSEN 1366 / BS 476

Products:

FP302 Intustrap - to be read in conjunction with details PS-001 to PS-004

Scenario:

Insulated non-combsutible penetrations passing through varying substrates in various orientations.

Penetrations:

Insulated non-sombsutible pipes
Insulated types:
Up to 50mm Phenolic
Up to 50mm Nitrile Rubber
Up to 50mm Glass Fibre
Up to 50mm Rock Mineral Fibre

Void Size:

See related details as noted above

Fire Resistance:
Tested up to 240 minutes

Movement Detail C & D only:

FS702 Intumastic: Up to ± 15%
FS703 silicone: Up to ± 25%

Acoustic:

Consult suitably quailified acosutic engineer.

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic.

Details may be applied to standard void seals, please see drawing sheet PS-001 to PS-006.

It is the responsibility of the purchaser to ensure suitability. If in doubt, please call a member of the technical team.

Drawing Title:

FP302 Intustrap to Insulated Non-Combsutible Penetration.

Drawing Reference No:

PS-007
A3

Construction Products Group Europe

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2020-04 v01

Nullifire
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Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A - 20mm wide x 25mm depth annular to combustible pipes within drylined walls up to 120 minutes integrity & insulation.

1. Select correct size polyethylene backer to tightly fit into minimum 20mm

2. Form a ring around the pipe with polyethylene backer and fix the two ends together with tape, slide along the pipe into the opening to form a 25mm deep recess to the front of wall.

3. Fill recess until flush with wall and trowel smooth.

4. Repeat to the opposite side of the wall.

PipeType	Diameter mm	Thickness mm	Rating
PVC	40	1.9	EI 120
	125	4.8	
	125	8.2	
PE	40	3.7	EI 120
	110	3.4	E 120 I 90
	110	6.6	EI 120
ABS	40	2.7	EI 120
	114.3	7.2	E 120 I 90
	114.3	11.3	EI 120 I 60

Detail B, D & E - 300x100 aperture within partition up to 120 minutes integrity & insulation suitable for cables and combustible pipes up to 63mm

1. Ensure services are 20mm minimum from edge of opening, pipes and cable bunches 20mm apart.

2. Fill void with 33kg/m3 rock mineral fibre to from a 25mm recess to plasterboard face.

PenetrationType	Type	Dia mm	Rating
Cable Bundle	Type F	40 mm	EI 120 I 90
Cable	Type A1		EI 120
	Type A2		
	Type A3		
	Type F		
	Type B		
PipeType	Dia mm	Thickness	
HDPE with 15mm Cooper	63	5.8	EI 120
HDPE Gas Pipe	63	5.8	EI 120

Detail C - 20mm wide x 25mm deoth annular to insulated non-combustible pipes.

1. Install as details A

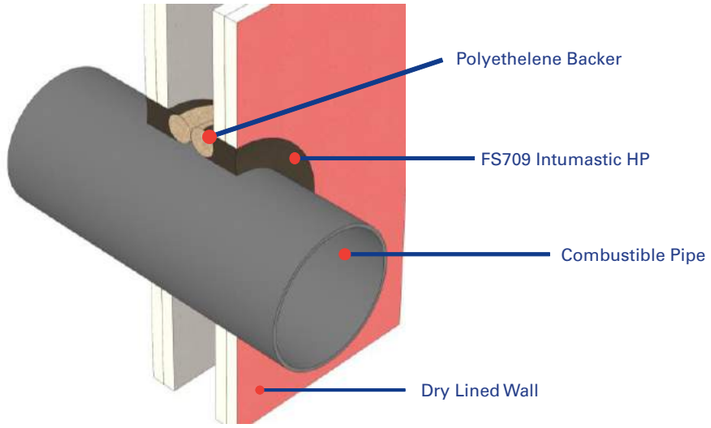
PipeType	Dia mm	Thickness mm	Insulation	Rating
Copper / Steel	15	0.7 to 14	30m Glass Fibre	EI 120
	160	2 to 14		EI120 I 90
Copper / Steel	40	0.7 to 14	33mm Nitrile	EI 120
	160	2 to 14		EI 120 I 30
Copper / Steel	15	0.7	N/A	EI 120 I 60

Detail F - 600 x 140 aperture within partition up to 120 minutes integrity & insulation suitable for full en cable set.

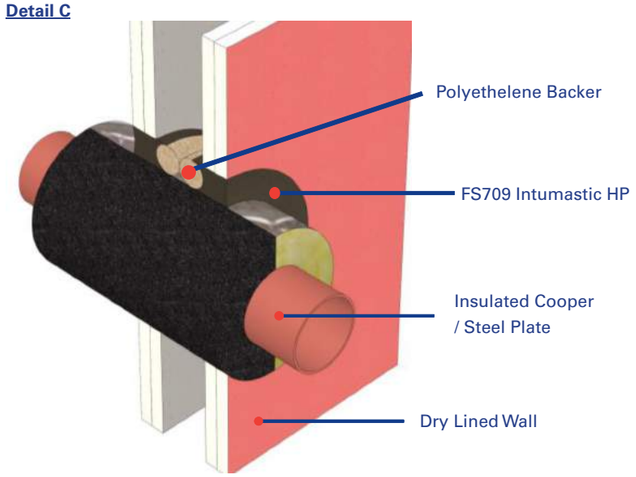
1. Install as details B,D & E

PenetrationType	Type	Size mm	Rating
Cable Ladders/Trays		Up to 500mm	Up to EI 120
Full EN Cable Set	Various		Up to EI 120

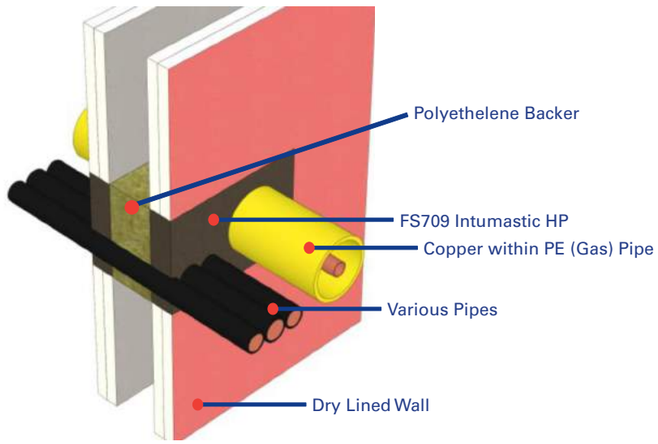
Detail A



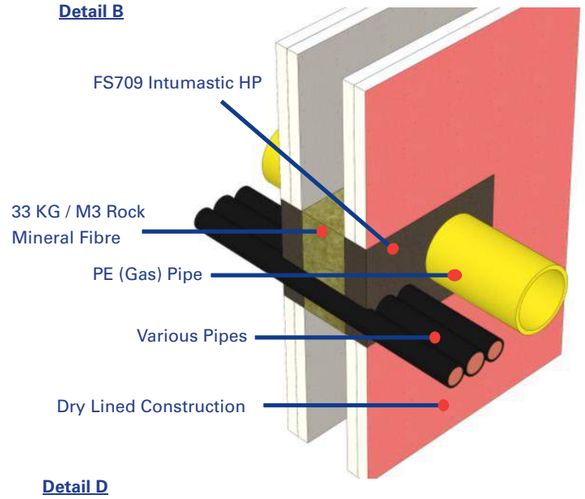
Detail C



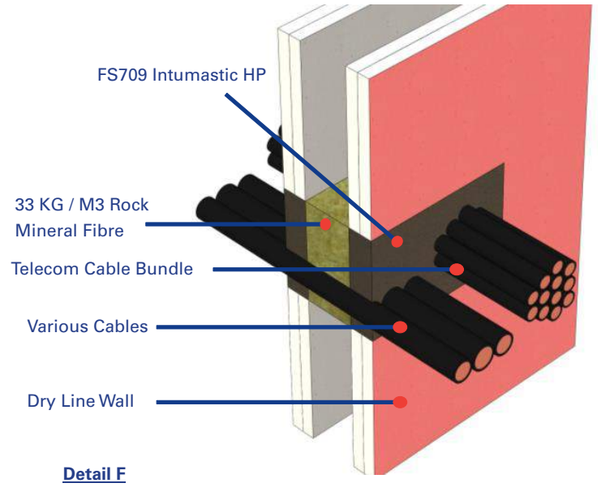
Detail E



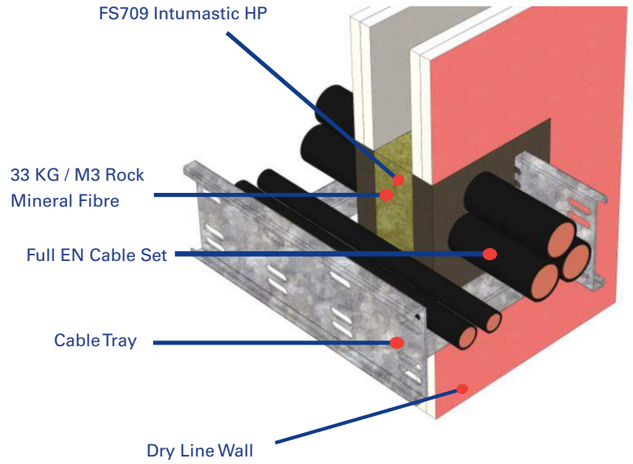
Detail B



Detail D



Detail F



Test Information:

Test: BSEN 136-1: 1999, BSEN 1366-3:2009, BSEN:1366-4:2006 +A1:2020

Test Reference WF375063

Products:

FS709 Intumastic HP

Scenario:

Annular Penetration Seals

Penetrations:

Various

Construction:

50mm C stud at 600mm centres, with 2 layers of 12.5mm type F plasterboard each side of wall. Applicable to insulated, non insulated flexible wall construction from 100mm thickness and thicker.

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

FS709 Intumastic HP to various penetrations within plasterboard

Drawing Reference No:

PS-008

A3

Construction Products Group Europe

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2020-04 v01

Nullifire
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Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A - 20mm wide x 25mm depth annular to combustible pipes within block work walls up yo 120 minutes integrity & insulation.

1. Select correct size polyethylene backer to tightly fit into minimum 20mm

2. Form a ring around the pipe with polyethylene backer and fix the two ends together with tape, slide along the pipe into the opening to form a 25mm deep recess to the front face of wall.

3. Fill recess until flush with wall and trowel smooth.

4. Repeat to the opposite side of the wall.

PipeType	Diameter mm	Thickness mm	Rating
PVC	40	1.9	EI 120
	125	4.8	
	125	8.2	
PE	40	3.7	EI 120
	110	3.4	E 120 I 90
	110	6.6	EI 120
ABS	40	2.7	EI 120
	114.3	7.2	E 120 I 90
	114.3	11.3	EI 120 I 60

Detail B, D & E - 300 x 100 aperture within partition up to 120 minutes integrity & insulation suitable for cables and combustible pipes up to 63mm

1. Ensure services are 200mm minimum from edge of opening, pipes and cable bunches 20mm apart.

2. Fill void with 33kg/m3 rock mineral fibre to form a 25mm recess to plasterboard face.

3. Fill recess with FS709 Intumastic HP and trowel flush with plasterboard face.

PenetrationType	Type	Dia mm	Rating
Cable Bundle	Type F	40 mm	EI 120 I 90
Cable	Type A1		EI 120
	Type A2		
	Type A3		
	Type F		
	Type B		
PipeType	Dia mm	Thickness	
HDPE with 15mm Cooper	63	5.8	EI 120
HDPE Gas Pipe	63	5.8	EI 120

Detail C - 20mm wide x 25mm depth annular to insulated non-combustible pipes.

1. Install as details A

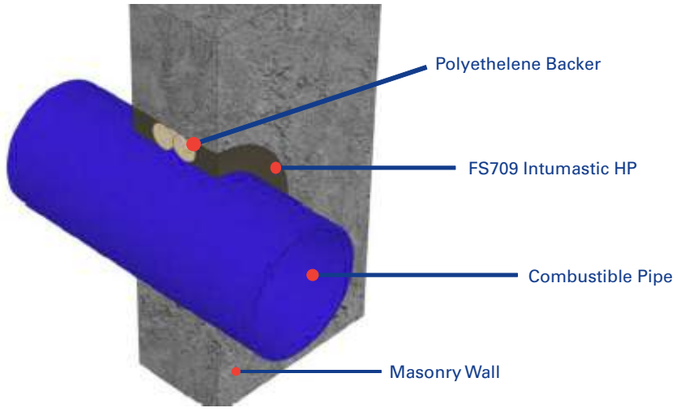
PipeType	Dia mm	Thickness mm	Insulation	Rating
Copper / Steel	15	0.7 to 14	30m Glass Fibre	EI 120
	160	2 to 14		EI120 I 90
Copper / Steel	40	0.7 to 14	33mm Nitrile	EI 120
	160	2 to 14		EI 120 I 30
Copper / Steel	15	0.7	N/A	EI 120 I 60

Detail F - 600 x 140 aperture within partition up to 120 minutes integrity & insulation suitable for full en cable set.

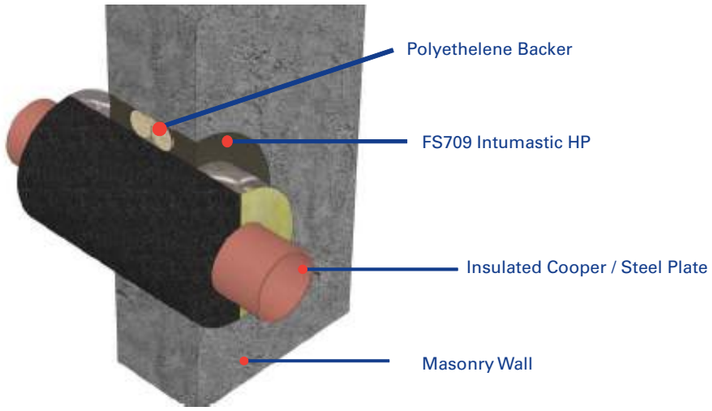
1. Install as details B,D & E

PenetrationType	Type	Size mm	Rating
Cable Ladders/Trays		Up to 500mm	Up to EI 120
Full EN Cable Set	Various		Up to EI 120

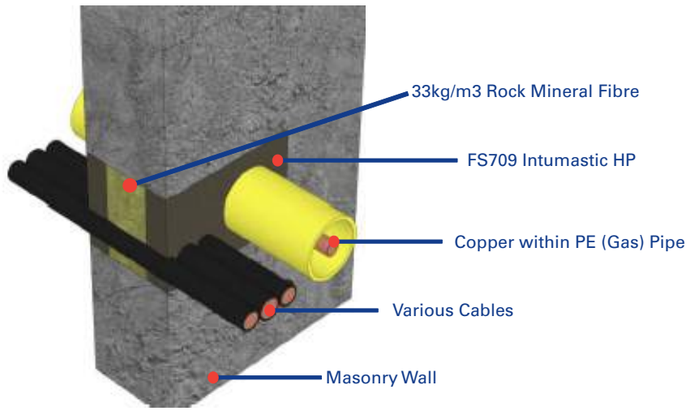
Detail A



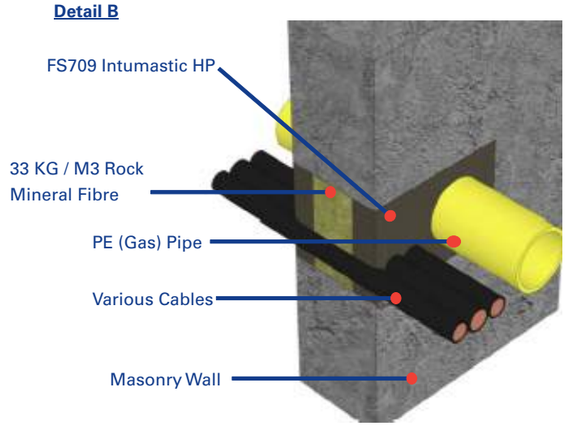
Detail C



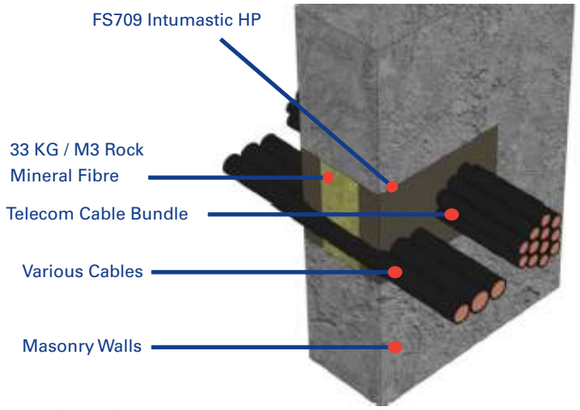
Detail E



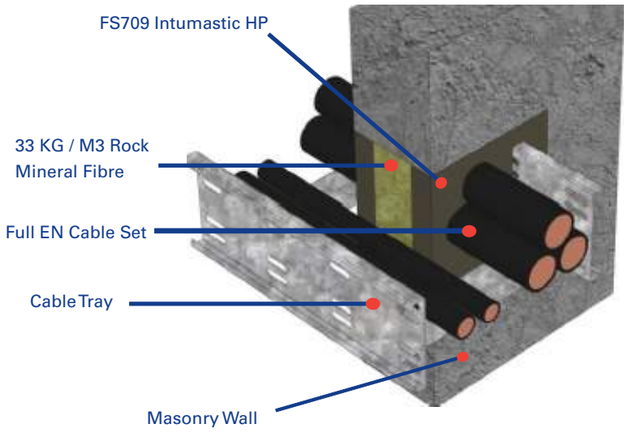
Detail B



Detail D



Detail F



Test Information:

Test: BSEN 136-1: 1999, BSEN 1366-3:2009, BSEN:1366-4:2006 +A1:2010

Test Reference WF375063

Products:

FS709 Intumastic HP

Scenario:

Annular Penetration Seals

Penetrations:

Various

Construction:

Masonry walls from 100mm thickness and thicker.

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

FS709 Intumastic HP to various penetrations within masonry

Drawing Reference No:

PS-008a

A3

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A - 20mm wide x 25mm depth annular to combustible pipes within concrete floors up to 240 minutes integrity & insulation.

1. Fill void with 33kg/m3 rock mineral fibre to form a 25mm recess top and bottom of floor.

2. Fill recess top and bottom until flush with face and trowel smooth.

PipeType	Diameter mm	Thickness mm	Rating
PE	40	3.7	EI 120
	110	3.9	E 240 I 180
	125	7.4	E 120 I 60
	125	11.4	
PVC	40	1.9	EI 120
	110	3.2	
PP	40	1.9	EI 120
	110	2.7	EI 60
	110	3.4	EI 120 I 60
	110	10	EI 120

Detail B - 20mm wide x 25mm depth annular to insulated non-combustible pipes within to concrete / masonry floors.

1. Fill void with 100mm depth of 33kg/m3 rock mineral fibre to form a 25mm recess top of floor.

2. Fill recess until flush with face and trowel smooth.

PenetrationType	Dia mm	Thickness mm	Insulation	Rating
Cooper / Steel	15	0.7 to 14	30mm Glass Fibre	E 180 I 120
	160	2 to 14		E120 I 60
Copper / Steel	15	0.7 to 14	33mm Nitrile	EI 180
Copper / Steel	15	0.7 to 14	13mm Nitrile	E 240 I 180
	159	2 to 14		E 240 I 15

Detail C, D & E - 50x50mm up to 600 x 600 aperture within concrete floor up to 120 minutes integrity & insulation suitable for cables and combustible.

1. Install as details B

PenetrationType	Type	Dia mm	Rating
Cable Bundle	33Type F	85mm	E 90 I 45
Cable	Type B		EI 120
	Type G2		
	Type F		
Cable Bundle	Type A1, A2 & A3		
PenetrationType	Type	Size mm	Rating
Cable Ladders /Tray		Up to 500	Up to EI 120
Full EN Cable Set	Various		Up to EI120 I90

Detail F - 20mm wide x 50mm annular within FB750 Intubatt, within concrete/masonry floor up to 60 minutes integrity & insulation

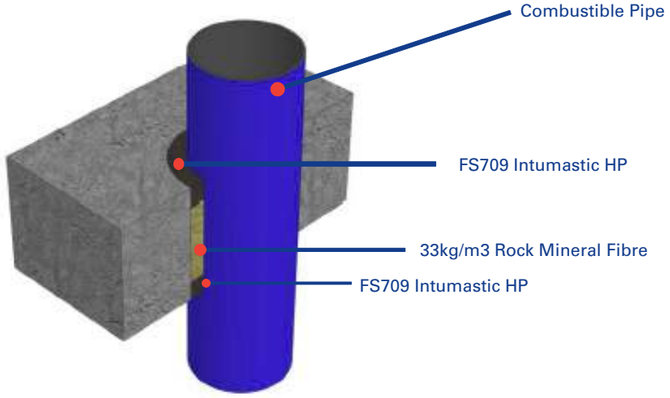
1. Install FB750 Intubatt as details PS 003, Detail C, D & F

2. Ensure minimum of 20mm annular is cut around the penetration

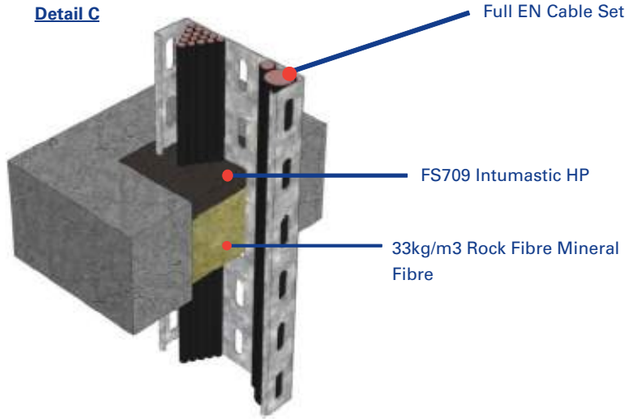
3. Fill annular with FS709 Intumastic HP

PipeType	Diameter mm	Thickness mm	Rating
PE	40	3.7	EI 60
	90	8.2	
	110	3.4 to 6.6	
PVC	40	1.9	EI 60
	90	6	
	125	4.8 to 7.4	
PP	40	1.9	EI 160
	90	8.2	
	110	2.7 to 10	
ABS	40	2.7	EI 60
	90	10	
	110	7.3 to 11.2	

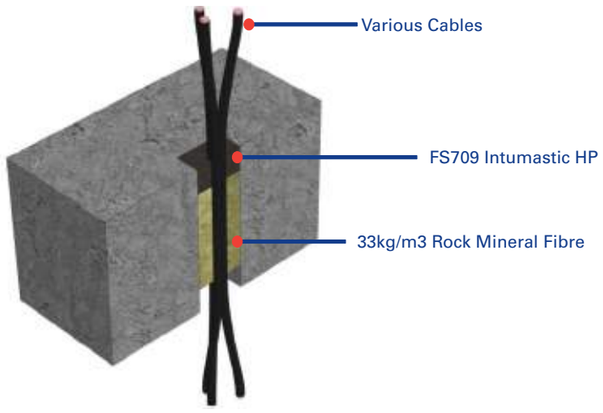
Detail A



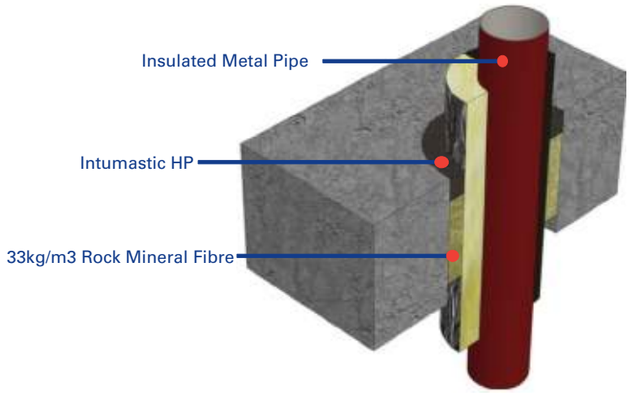
Detail C



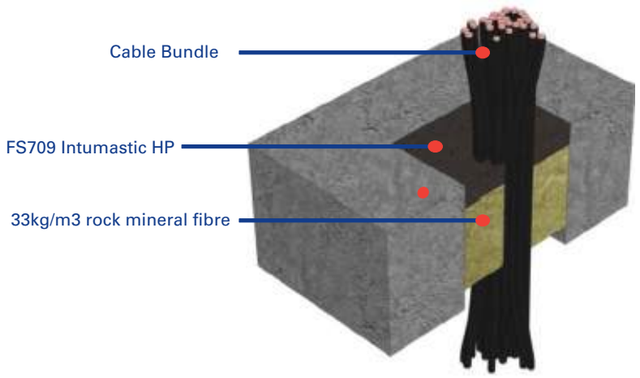
Detail E



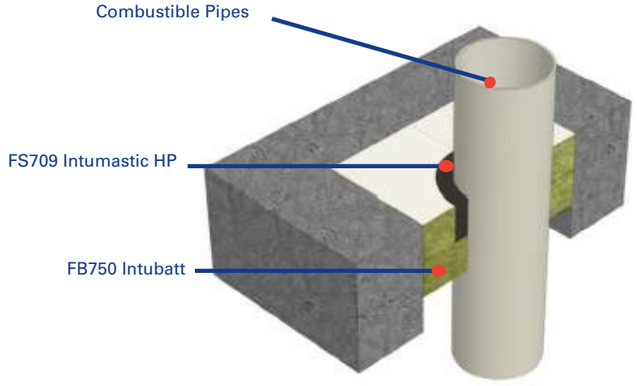
Detail B



Detail D



Detail F



Test Information:

Test: Bsen 136-1:1999, BSEN 1366-3: 2009, BSEN 1366-4:2006 +A1:2010

Test Reference WF375662, WF375663

Products:

FS709 Intumastic HP , FB760 Intubatt and FS702 Intumastic

Scenario:

Annular Penetration Seals

Penetrations:

Various

Construction:

Concrete Floor

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

FS709 Intumastic HP to various penetrations within floor

Drawing Reference No:

PS-008b

A3

Construction Products Group Europe

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For more information, please contact a member of our technical team on: firehelp@cpg-europe.com

2020-04 v01

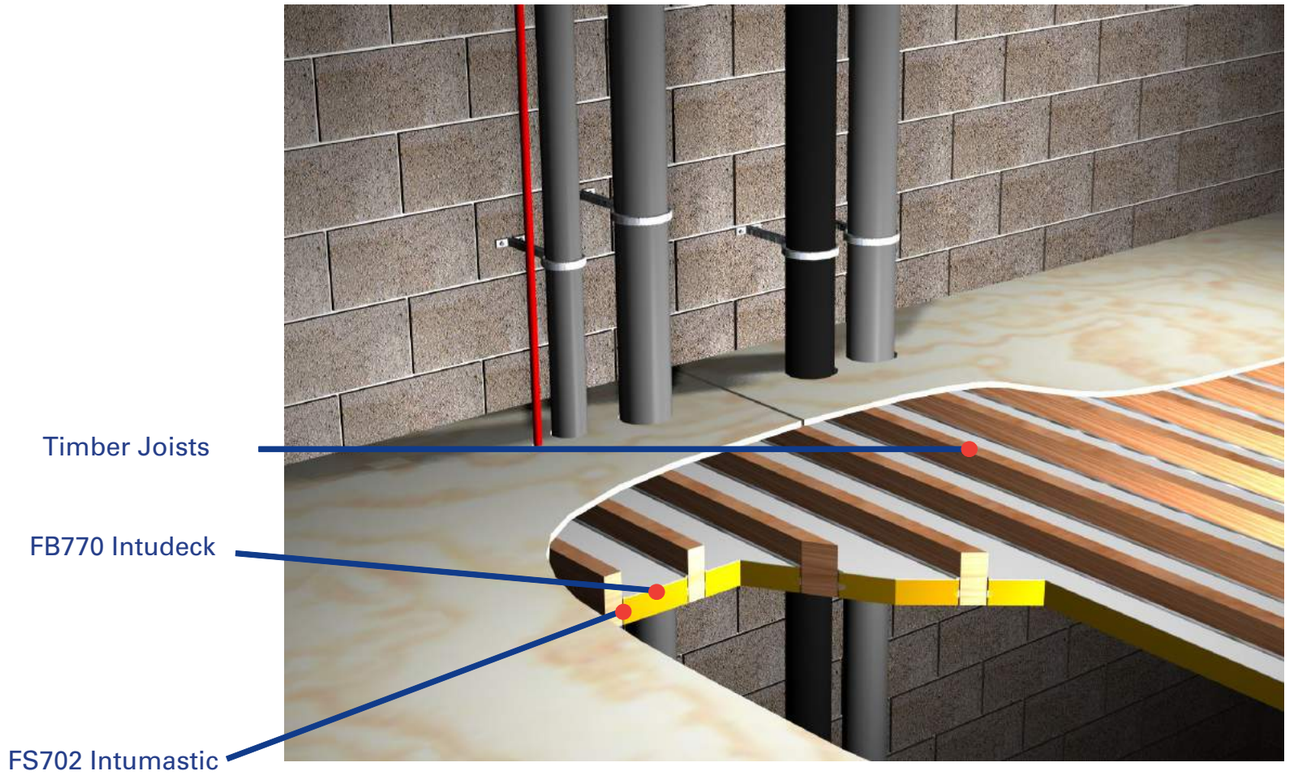
Nullifire
Smart Protection

Installation Instructions:

1. Observe FB770 Intudeck safety data sheet before commencing work.
2. Lift sufficient floorboards to allow FB770 Intudeck to be installed.
3. Clear any remaining pugging from the ceiling/ Floor void and clear dust from the sides of the joists to improve the adhesion of the bonding FS702 Intumastic.
4. Apply a 10 mm bead of FS702 Intumastic 30 mm up from the ceiling (this is to allow for cable runs, etc). If adhesion is difficult, a light water mist applied to the timber will assist. FB770 Intudeck to FB770 Intudeck abutments must be bonded
5. Using FS702 Intumastic. Intudeck to timber abutments must be dry and under 1.5-2 mm compression. Ensure board is pressed into lower
6. Mastic bead.
7. Measure the gap between joists and cut an FB770 Intudeck batt along the 1200 mm side to fit tightly and under compression.
8. Place loosely in position at 45° between joists.
9. Using a timber board to spread the load, ease into final position using gentle foot pressure.
10. When finally positioned, apply a 5 mm bead of FS702 Intumastic all-round the seal and on the butt joints.
11. Inspect and check completed work and re-fix floorboards.

General

1. Coat all joints, exposed edges of FB770 Intudeck and damages to coating with FS702 Intumastic brush grade.
2. Apply FS702 Intumastic bead approximately 6mm thickness to all FB770 Intudeck interfaces.



Test Information:

Test: BSEN1365-2 / BS476

Products:

Timber Floor Upgrade Between Joists

Penetrations:

Various penetrations tested, see drawings PS007 to PS012 for specific installation guidelines. Maximum 600mm

Fire Resistance:

Tested up to 90 Minutes EI

Acoustic:

Test BRE 224313
FB770 Intudeck 40dB

Nullifire details will only perform to the substrates performance capabilities. It is the responsibility of the purchaser to ensure suitability.

Drawing Title:

FB770 Intudeck Timber Floor Upgrade Installation Detail

Drawing Reference No:

PS-014

Additional Information:

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For more information, please contact a member of our technical team on: firestopping.uk@cpg-europe.com

1020-04 v01

Nullifire
Smart Protection

Installation Instructions:

Ensure within aperture is clean and free of debris, loose cement, and remove all dust from surfaces requiring installation.

Detail A- Framed & lined, single iFB750 Intubatt up to 60 minutes integrity & 45 minutes insulation.

1. Cut required length of FP302 Intustrap to wrap around the outside of the three insulated pipes to form two layers.
2. Fit FP302 Intustrap around the insulation in line with the proposed FB750 Intubatt position.
3. Cut FB750 Intubatt to tightly fit in to aperture and around FP302 Intustrap.
4. Coat FB750 Intubatt edges and fit in to opening at required position.

Detail B – Framed opening, two layers of FB750 Intubatt suitable for up to 90 minutes integrity & insulation

1. Cute required length of FP302 Intustrap to wrap around the outside of the three insulated pipes to form two layers.
2. Fit FP302 Intustrap around the insulation inline with the proposed FB750 Intubatt position
3. Cut FB750 Intubatt to tightly fir into aperture and around insulated pipes, forming a rebate for the FP302 intustrap within the FB750 Intubatt
4. Coat FB750 Intubatt edges and fit in opening at required position.
5. Fit FB750 Intubatt into opening ensuring good bonding to framing and plasterboard edge.
6. Repeat the above to the opposite side of the wall.

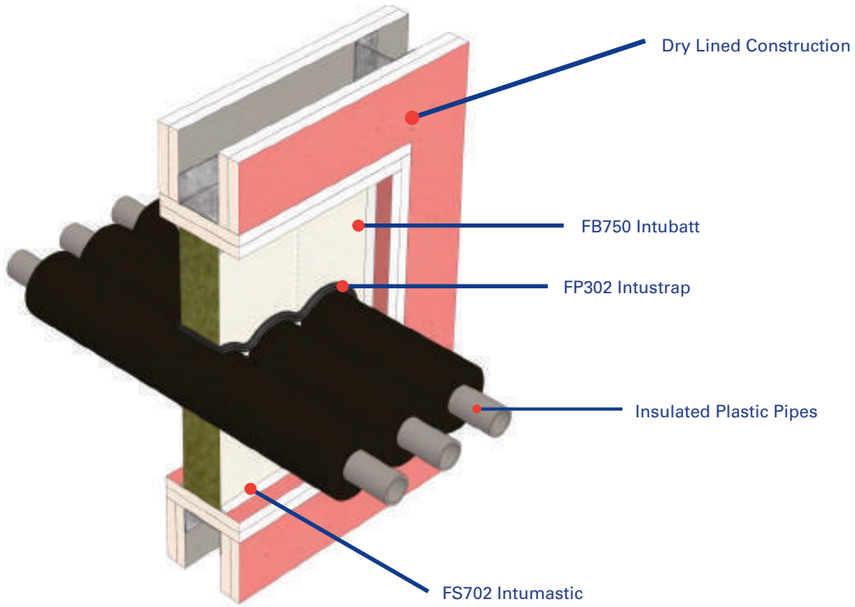
Detail C- Unframed, unlined, double patress Intubatt rated up to 90 minutes integrity & insulation.

1. Cut required length of FP302 Intustrap to wrap around the outside of the three insulated pipes to form two layers.
2. Fit FP302 Intustrap around the insulation inline with the proposed FB750 Intubatt position.
3. Cut FB750 Intubatt to required size and shape, ensuring that FB750 Intubatt will overlap the plasterboard a minimum of 75mm around the opening.
4. Apply FS702 Intumastic to plasterboard where FB750 Intubatt is to be fitted, to bond FB750 Intubatt to plasterboard and FB750 Intubatt to FB750 Intubatt.
5. Firmly press FB750 Intubatt to plasterboard to ensure bond.
6. Fix the FB750 Intubatt to the plasterboard using minimum 75mm long steel screws and 25mm diameter steel washers. Fixings should not exceed 65mm from any edge and not exceed 260mm centres.

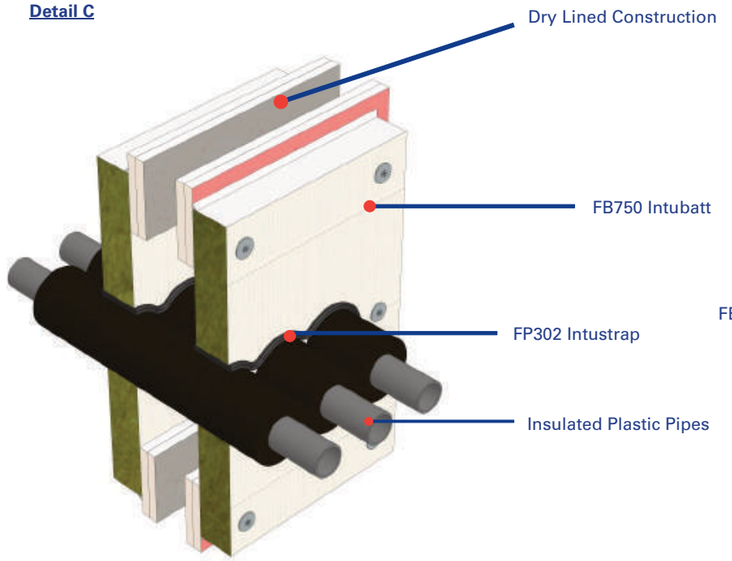
General

1. Apply FS702 Intumastic bead to all FB750 Intubatt interfaces / joints
2. Coat all joints, exposed edges of FB750 Intubatt and damages to coating with FS702 Intumastic brush grade.

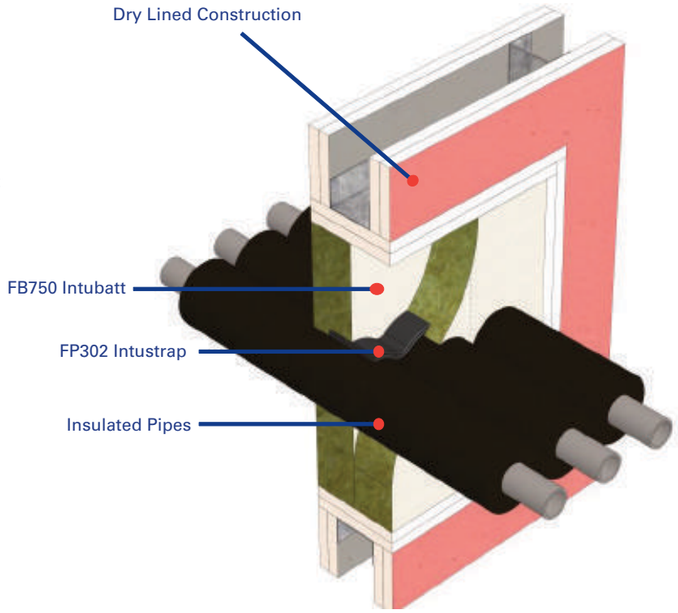
Detail A



Detail C



Detail B



Test Information:

Test: BS EN 1363-1, BS EN 1366-3&4
Test Reference: WF 370054

Products:

FB750 Intubatt, FP302 Intustrap & FS702 Intumastic

Scenario:

Banks of insulated combustible pipes through 90 minute dry lined wall construction. 100mm overall thickness.

Penetrations:

Up to 40mm combustible pipes, 20mm nitrile insulation.

Void Size:

90mm x 550mm
Above framework required

Fire Resistance:

Detail A- E 60, I 45
Detail B- EI 90
Detail C- EI 90

Nullifire details will only perform to the substrates performance capabilities. This applies to fire and acoustic. It is the responsibility of the purchaser to ensure suitability. If in doubt call technical.

Drawing Title:

Banks of insulated plastic pipes in dry lined wall construction

Drawing Reference No:

PS-010

A3

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