



EQUITONE system

construction details

EQUITONE with face fixings on timber support frame

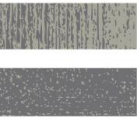


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General information

This document provides generic construction details for EQUITONE façade systems with UNI Screw panel face fixings on timber batten support frame to assist with the design of EQUITONE façade.

This document is not designed to serve as an installation guide, and is intended to be used in conjunction with 'EQUITONE Design and Installation Guide_ face fixings on timber frame' and other relevant technical and installation documents.

Construction details in this document have been independently certified for the purpose of compliance with the performance requirement of FP1.4 and P2.2.2 of the NCC 2019 Amendment 1.

The weatherproofing performance of any project specific detail or application that is different from or not included in the construction details of this document shall be evaluated by the project engineer or consultant.

Cladding support frame and its connection to substructure shall be designed by the project engineer in accordance with the relevant standards. The support frame maximum deflection under the influence of load shall be limited to $\text{Span}/250$. The support frame, fixings, flashings and the like shall be of adequate corrosion resistance appropriate to the corrosivity category of the project location.

Refer to your local EQUITONE technical team for the specific requirements pertaining to the application of EQUITONE in bushfire prone areas (BAL).

Construction details contained in this document are not to a specific scale, and are for illustration purposes only.

The information in this guide is comprehensive but not exhaustive, and the reader will need to satisfy themselves that the contents of this guide are suitable for their intended application. It is the responsibility of the project consultants (designer, architect, and engineers) to ensure that the information and details provided in this document are appropriate for the project.

The information in this document is correct at the time of issuing. However, due to our committed program of continuous material and system development we reserve the right to amend or alter the information contained in this document without prior notice. Please contact your local EQUITONE sales organisation or visit www.equitone.com to ensure you have the most current version.

This document is supplied in good faith and no liability can be accepted for any loss or damage resulting from its use. Images and construction details contained in this document are not to a specific scale, and are indicative and for illustration purposes only.

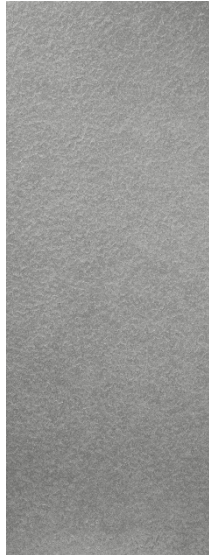
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Components

Materials



EQUITONE [lines]



EQUITONE [lunara]



EQUITONE [tectiva]



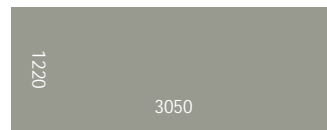
EQUITONE [natura]



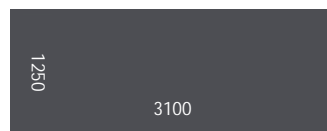
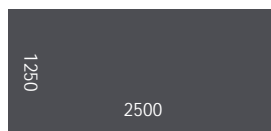
EQUITONE [pictura]

Maximum available panel sizes

EQUITONE [tectiva] 8 mm thick
EQUITONE [lines] 10 mm thick
EQUITONE [lunara] 10 mm thick



EQUITONE [natura] 8 and 12 mm thick
EQUITONE [natura] PRO 8 and 12 mm thick
EQUITONE [pictura] 8 and 12 mm thick



Panel fixings

UNI Screw

Colour coded and available in the following materials and grades:

Stainless Steel 304 (A2)

Available with additional protective coating for C5 corrosion zone

Stainless Steel 316 (A4)



Notes

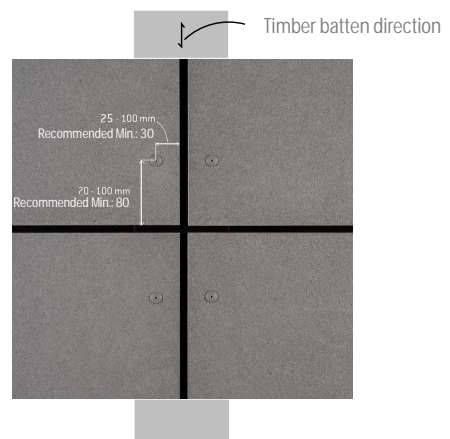
For EQUITONE [natura] PRO and [pictura] UNI Screw Stainless Steel protective collar should be used with UNI Screw.

Panel hole size is 7mm, drilled with 7mm EQUITONE drill bit.
Each panel thickness has its own corresponding UNI screw.

UNI Screw panel edge distances:

From the edge parallel to support frame: 25 – 100 mm (Recommended: 30 mm)

From the edge perpendicular to support frame: 70 – 100 mm (Recommended: 80 mm)



Components

EPDM gasket strip

Black UV resistant EPDM used over timber battens.



Compressible EPDM gasket

12mm Tesa® 61102

A compressible closed-cell EPDM gasket used for sealing interfaces with flashings and the like.



Baffle

Black coated aluminium or metal baffle is used to form expressed panel horizontal joints.



Weather resistive barrier option 1

pro clima SOLITEX EXTASANA® pliable membrane

Note
pro clima SOLITEX EXTASANA® is tested and certified with EQUITONE façade systems to AS4284 for the purpose of compliance with NCC FP1.4 & P2.2.2 to the following wind pressures calculated to AS1170.2.
Serviceability wind pressure: $\pm 2\text{KPa}$
Ultimate wind pressure: $\pm 3\text{KPa}$
pro clima SOLITEX EXTASANA® shall be applied in accordance with AS4200.2 and pro clima SOLITEX EXTASANA® installation guidelines.
There are limitations with use of pro clima SOLITEX EXTASANA® with EQUITONE [material]. Refer to EQUITONE technical team for further advice.



Weather resistive barrier option 2

Siniat WEATHER DEFENCE® rigid air barrier

Note
Siniat WEATHER DEFENCE® is tested and certified with EQUITONE façade systems to AS4284 for the purpose of compliance with NCC FP1.4 & P2.2.2 to the following wind pressures calculated to AS1170.2.
Serviceability wind pressure: $\pm 2.5\text{KPa}$
Ultimate wind pressure: $\pm 4.5\text{KPa}$
Siniat WEATHER DEFENCE® shall be applied in accordance with Siniat WEATHER DEFENCE® installation guidelines.



Flashing tape

pro clima TESCON EXTORA®

A pressure sensitive adhesive tape for overlaps and end laps used with both weather resistive barrier options.



Components

Sill tape

pro clima TESCON EXTOSEAL®

A flexible tape for use around window and door openings, used with both weather resistive barrier options.



Sealing tape

pro clima TESCON® NAIDECK mono patch

A single-sided adhesive nail or screw sealing adhesive used with both weather resistive barrier options.



Foil tape

pro clima TESCON® ADHISO WS

A pure aluminium tape for wet seal connections to TESCON EXTOSEAL® and EXTORA®, and SOLITEX EXTASANA®.



Grommet

pro clima ROFLEX and KALFEX

pro clima ROFLEX is used to seal pipe and pro clima KALFEX for cable penetrations. pro clima ROFLEX and KALFEX are used with both weather resistive barrier options.



Support frame

Timber batten

Minimum depth: 35mm

Minimum width: 50mm

Standard structural cavity batten size: 70 x 35 mm



Notes

Maximum deflection of the support frame under influence of load shall be limited to $\text{Span}/250$.

Support frame and its connection to substructure shall be designed by project engineer in accordance with the relevant standards.

Refer to UNI Screw span table for maximum vertical and horizontal spacing of panel fixings.

The minimum grade of structural batten is MGP10 in accordance with AS1720.1-2010.

Timber batten shall be of adequate preservative treatment level; the recommended minimum level is H3.

Timber shall be seasoned or have reached an equilibrium moisture content of 16% or less at the time of installation. Unseasoned timber is not recommended.

Ventilation

A ventilated façade is a kind of two stage construction, an inner structure with a protective outer skin, and the cladding panel or rainscreen. A ventilated façade consists of an insulated and weathertight structure, a ventilated cavity formed with a cladding support frame and the cladding panel.

Allowance for adequate ventilation is paramount in ensuring a successful EQUITONE façade. Ventilated façades provide a number of added benefits to the building and its occupants. These may include but are not limited to the following:

- Positive contribution to energy savings
- Assists with condensation management
- Minimises thermal bridges by providing an opportunity for applying external insulation
- Reduces thermal movement of the structure and cladding support frame
- Dissipates radiant heat
- Increases acoustic performance of the external wall
- Provides an effective drainage path for any moisture passing the cladding skin
- Eliminates the need for exposed caulking and sealant, therefore reducing maintenance requirements
- Assists with keeping the weather barrier dry and healthy
- Provides opportunities for concealing external services such as downpipes within the cavity
- Proven to be a more sustainable and healthier façade construction
- Architectural design flexibility

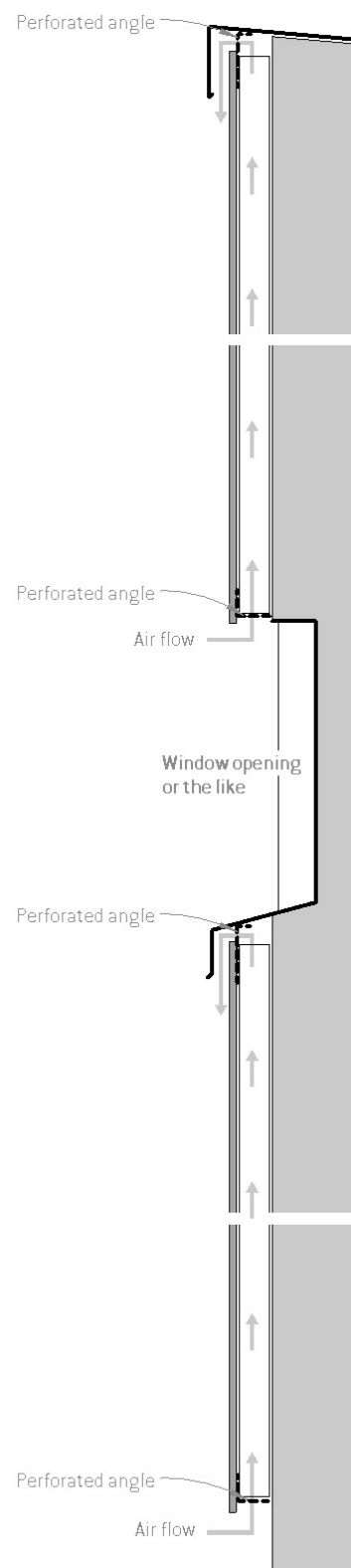
Air must be allowed to enter the cavity from bottom of the façade, window head, soffit, slab junctions, and the like, and exit from top of the façade, capping, window sill, slab and soffit interfaces, and the like.

It is recommended that all air inlets and outlets are protected against entry of birds and vermin into the cavity with a corrosion resistant perforated profile (angle).

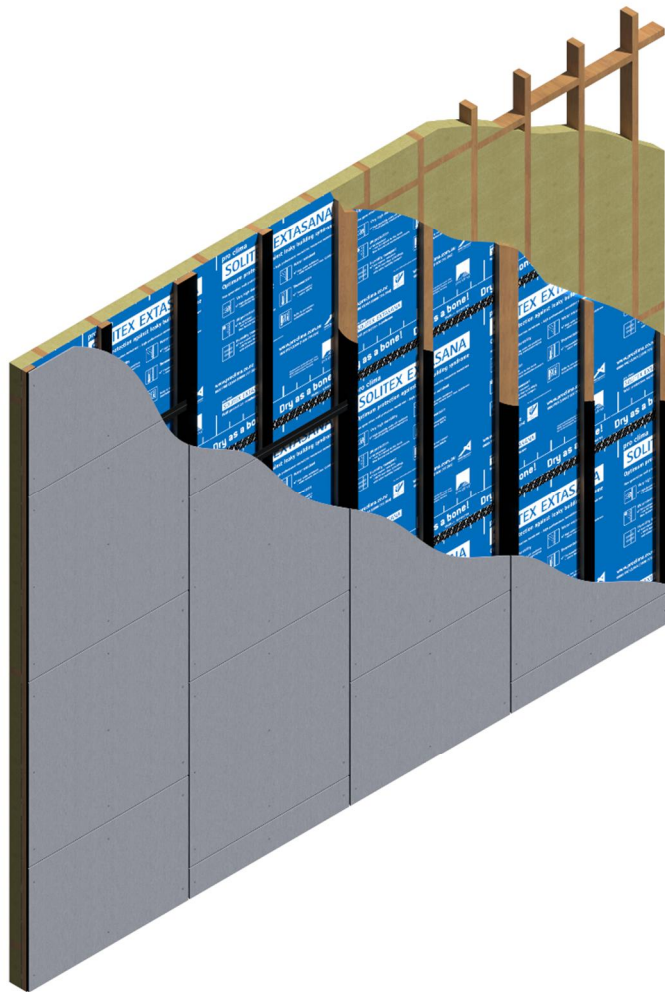
The perforated angle should be less than 0.8mm in thickness where placed between EQUITONE and the support frame, and should have a minimum 50% open area.

In bushfire prone areas (BAL zones), all air inlets and outlets as well as gaps greater than 3mm shall be covered with a perforated angle, with aperture size of no greater than 2mm as per AS3959. In these areas, all horizontal panel joints should be baffled, and the wall construction shall be in accordance with AS3959. Refer to your local EQUITONE technical team for further information in relation to the application of EQUITONE in bushfire prone areas.

For further information, refer to Design and Installation Guides.



EQUITONE system



pro clima SOLITEX EXTASANA® pliable membrane

timber batten construction

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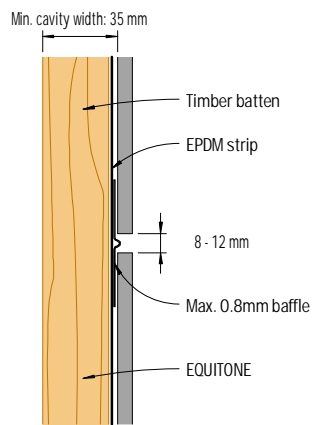


Figure 1: Baffled horizontal joint

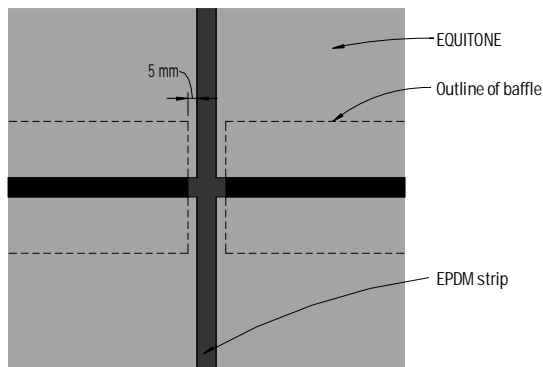


Figure 2: Baffled horizontal joint junction with vertical joint - Elevation

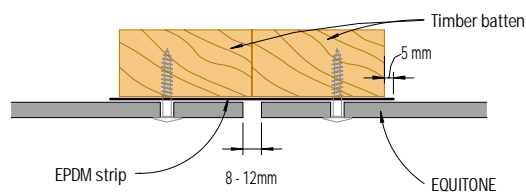


Figure 3: Vertical joint - Detail 1

Note

- 1) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.
- 2) EPDM strip located on vertical joints and exposed to UV may be subject to some degree of deterioration in time, which could also be aesthetically unappealing. A coloured, corrosion resistant metal strip with maximum thickness of 0.8 mm may be alternatively used for more durability.

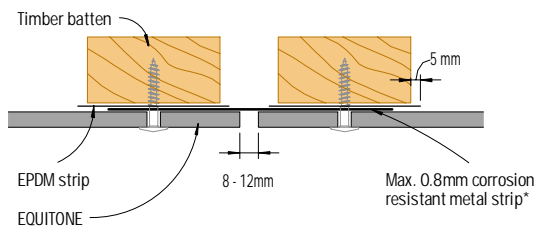


Figure 4: Vertical joint - Detail 2

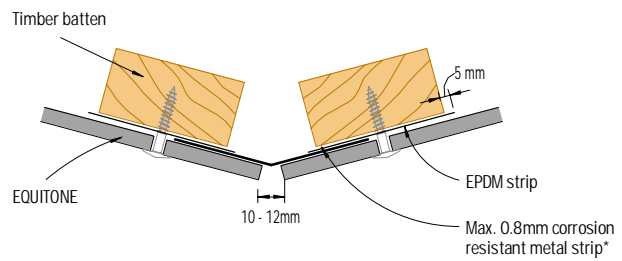


Figure 5: Vertical joint - Detail 3

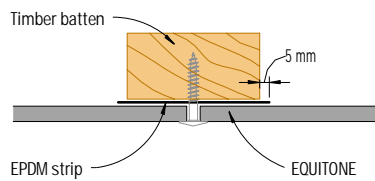


Figure 6: Intermediate panel fixings connection

Notes

- 1) In Figure 4 & 5, the metal strip should be fixed ONLY to one of the battens (either left or right) where allowance for horizontal and/or vertical movement of the cladding frame is required.
- 2) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

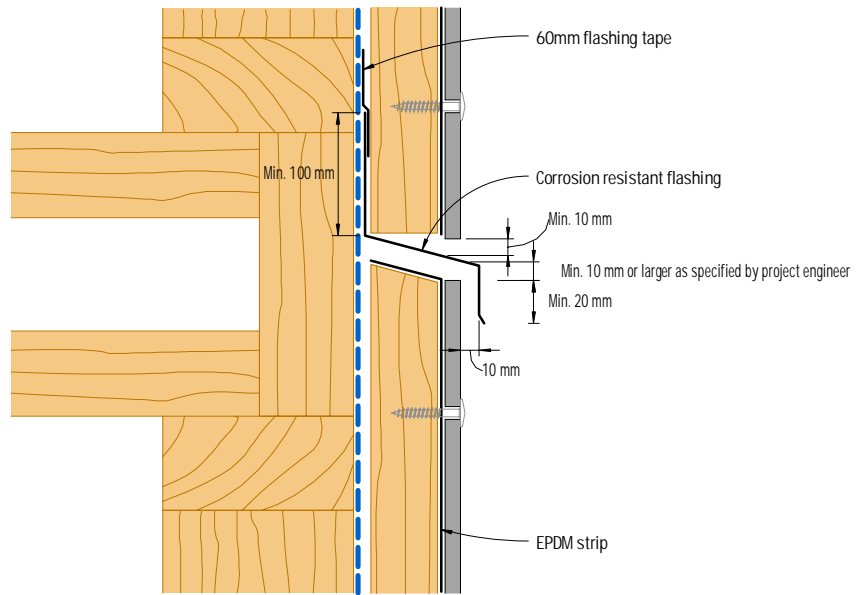


Figure 7: Horizontal control joint

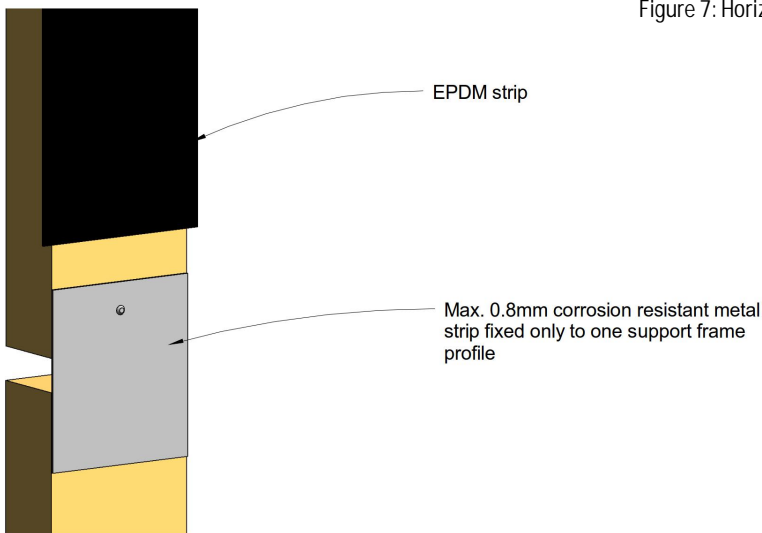


Figure 8: EPDM gasket support over control joint or the like

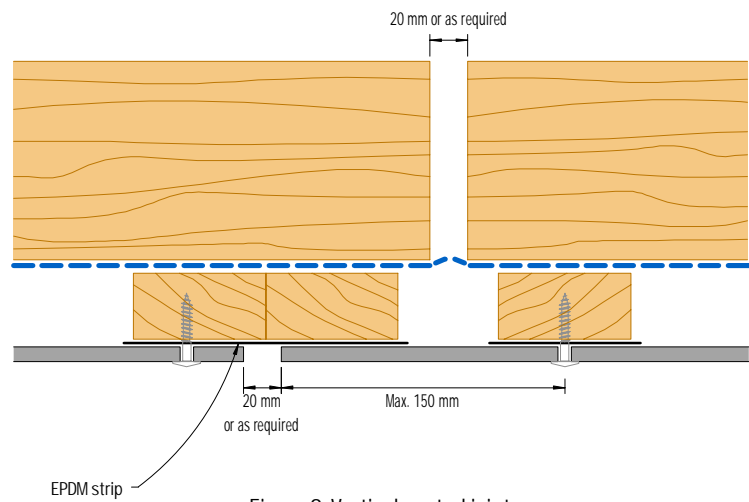


Figure 9: Vertical control joint

Notes

- 1) Support frame profiles (battens) must NOT be fixed crossing over a control joint nor to a deflection head.
- 2) Allowance for movement at the location of any control joint must be made in the cladding and its support frame design and installation. Panel must NOT be fixed bridging over any control joint.
- 3) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

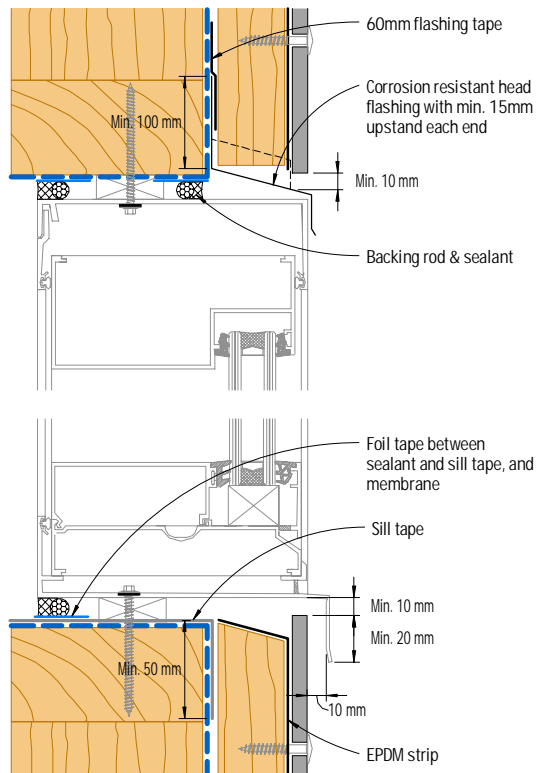


Figure 10: Flush window - Head and sill

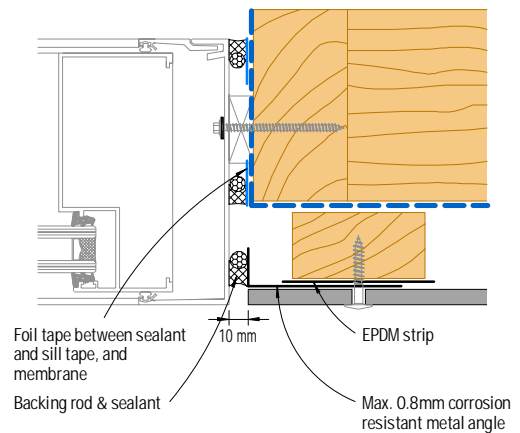


Figure 11: Flush window - Jamb

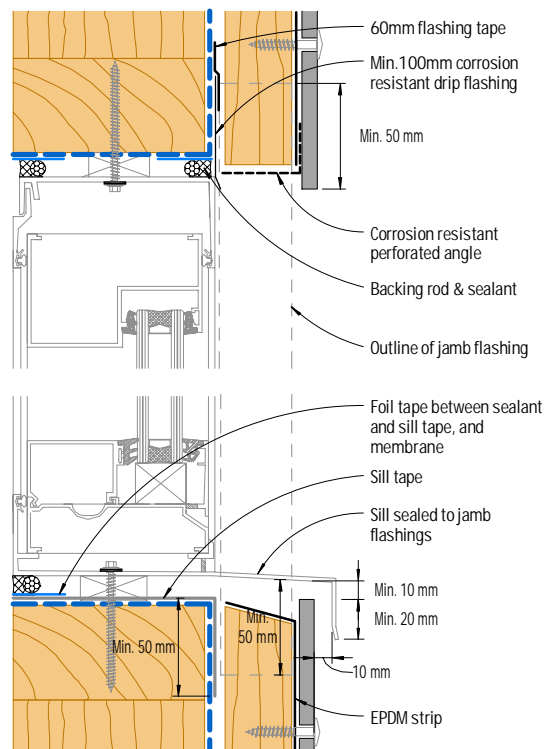


Figure 12: Recessed window - Head and sill

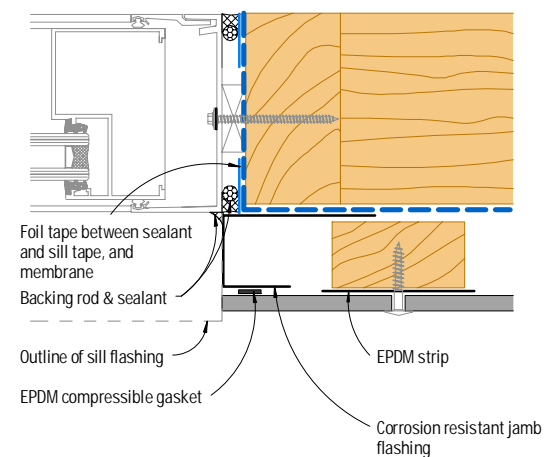


Figure 13: Recessed window - Jamb

Notes

- 1) ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.
- 2) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

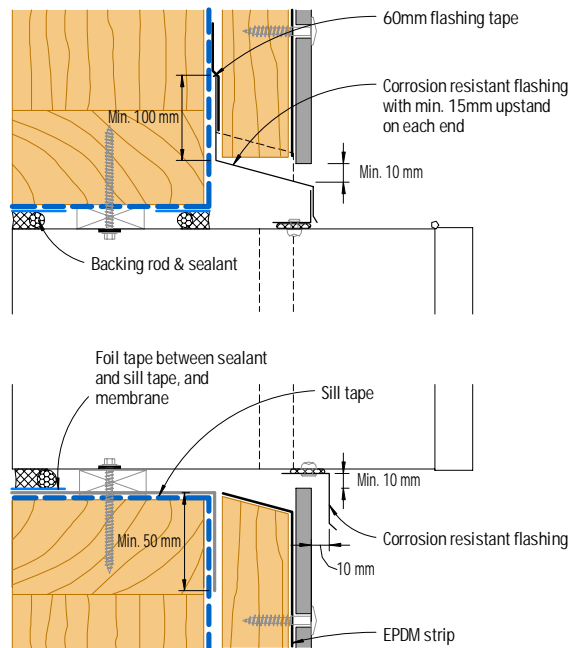


Figure 14: Meter box - Section

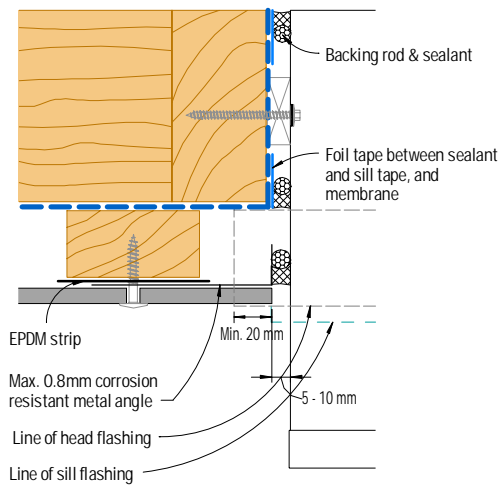


Figure 15: Meter box - Plan view - Detail 1

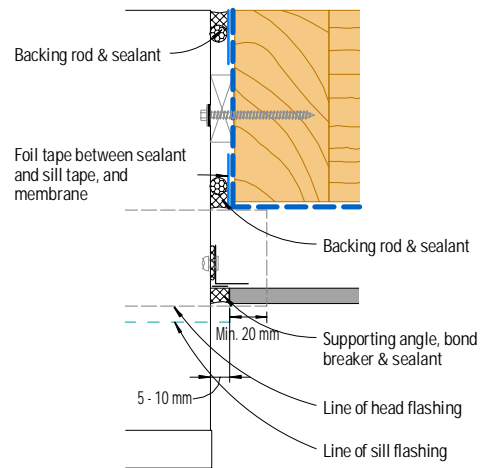


Figure 16: Meter box - Plan view - Detail 2

Notes

- 1) ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.
- 2) For EQUITONE [materia] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

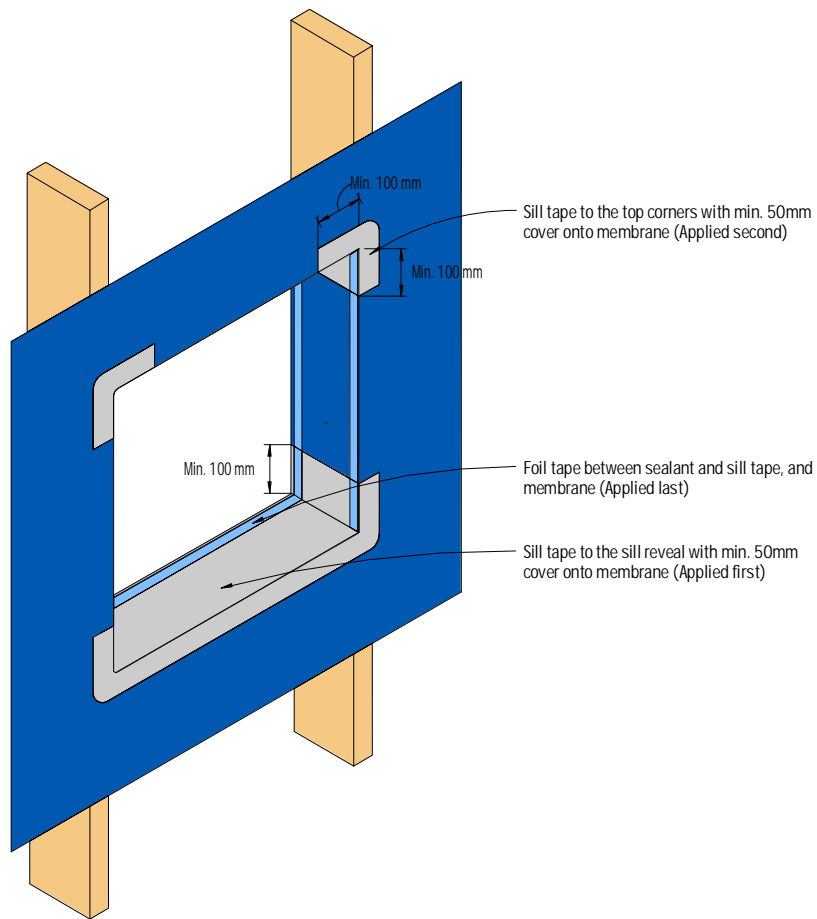


Figure 17: Isometric view of window/meter box opening - Tape application

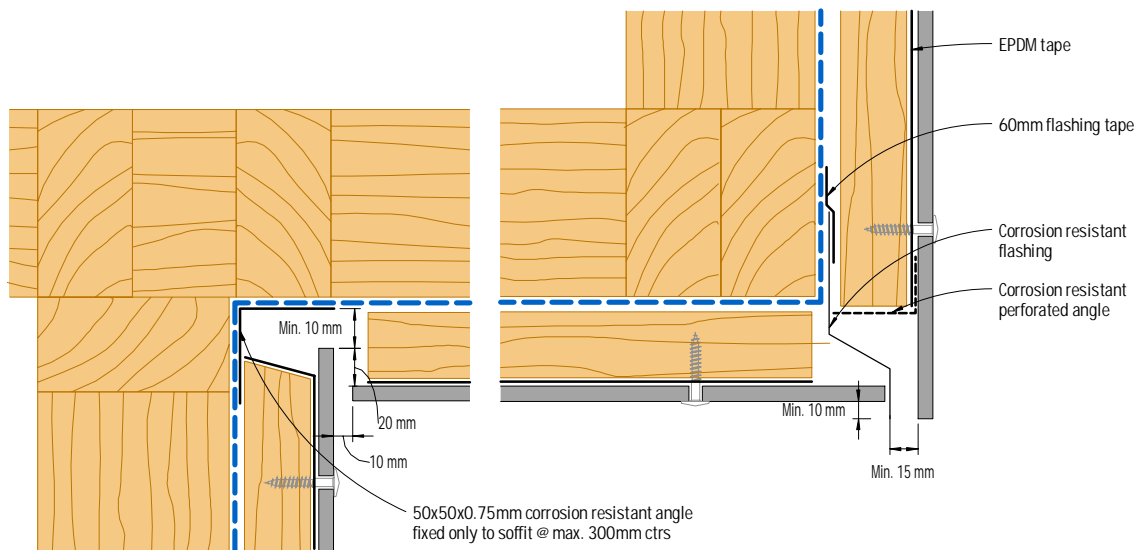


Figure 18: Soffit junction

Notes

- 1) ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.
- 2) Support frame (battens) must NOT be fixed crossing over a control joint.
- 3) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.
- 4) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

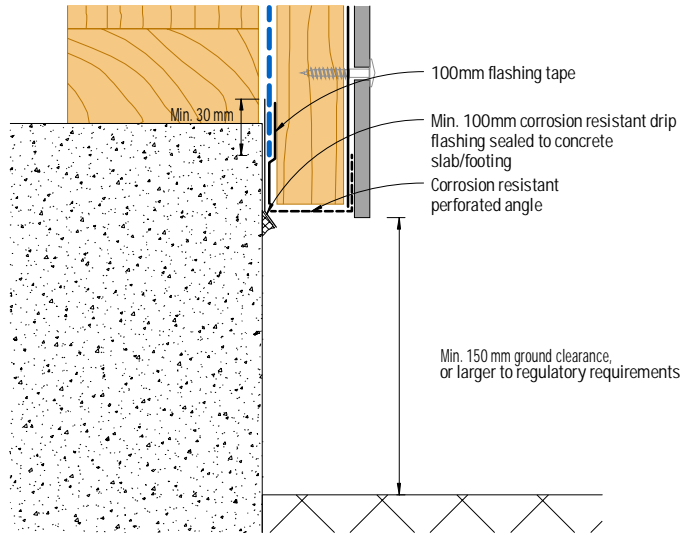


Figure 19: Base detail

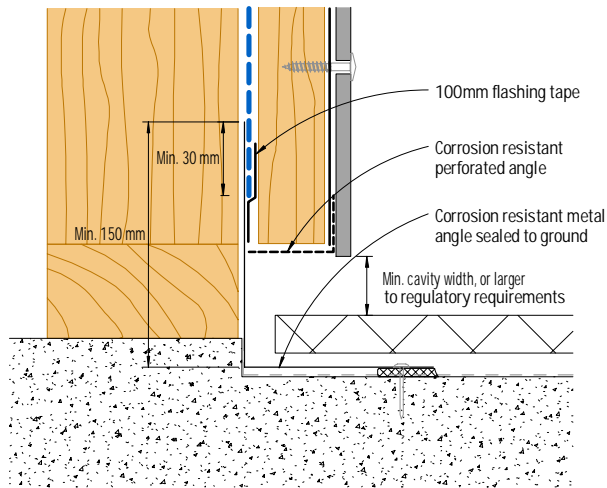


Figure 20: Base detail - Covered area

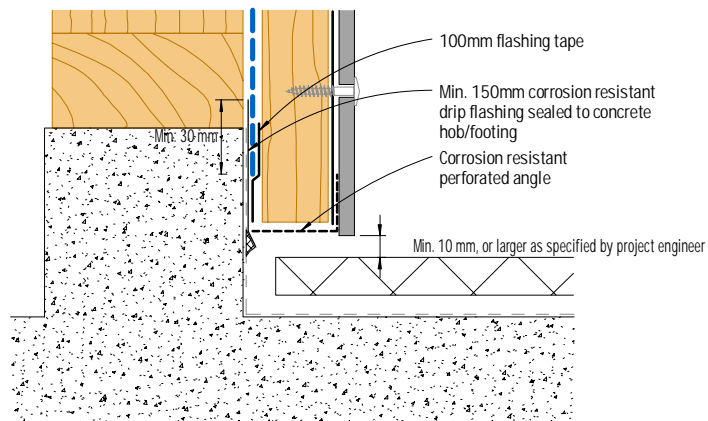


Figure 21: Base detail - Balcony

Notes

- 1) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.
- 2) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

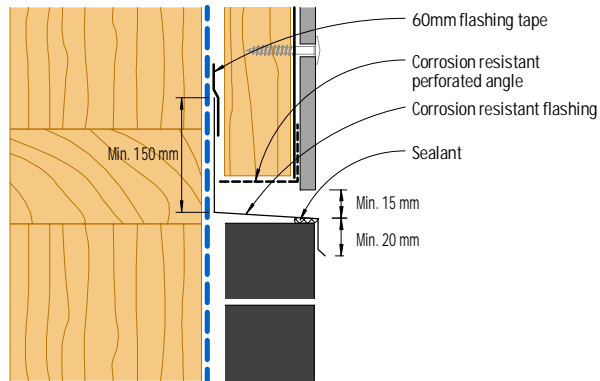
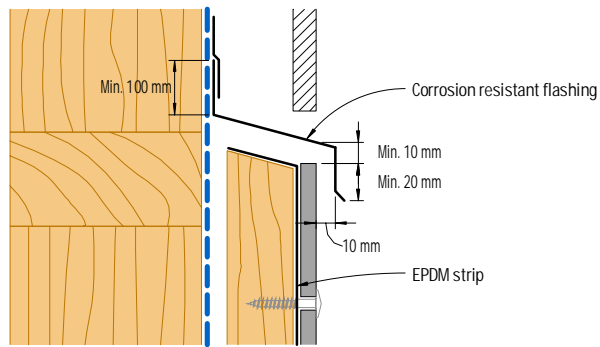


Figure 22: Junction with other materials - flush detail

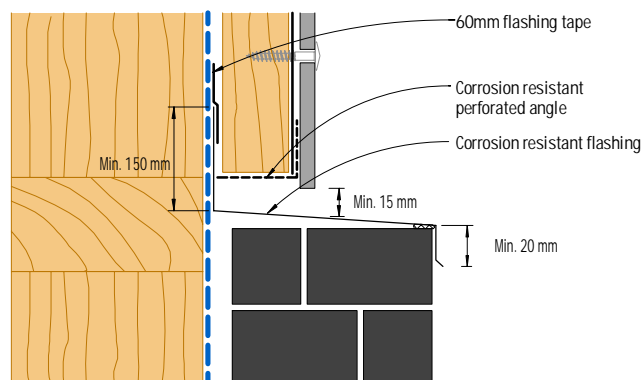
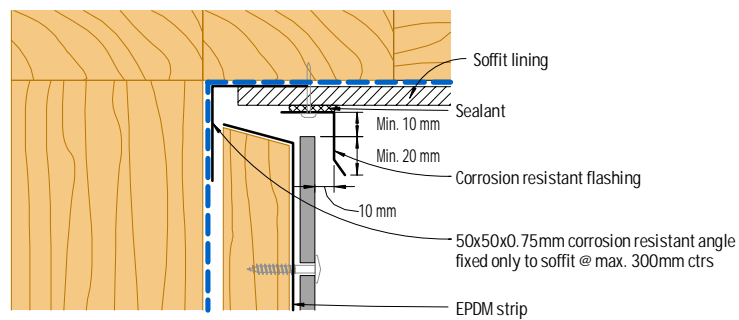


Figure 23: Junction with other materials, eaves or the like - recessed detail

Notes

- 1) Support frame profiles (battens) must NOT be fixed crossing over a control joint nor to a deflection head.
- 2) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.
- 3) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

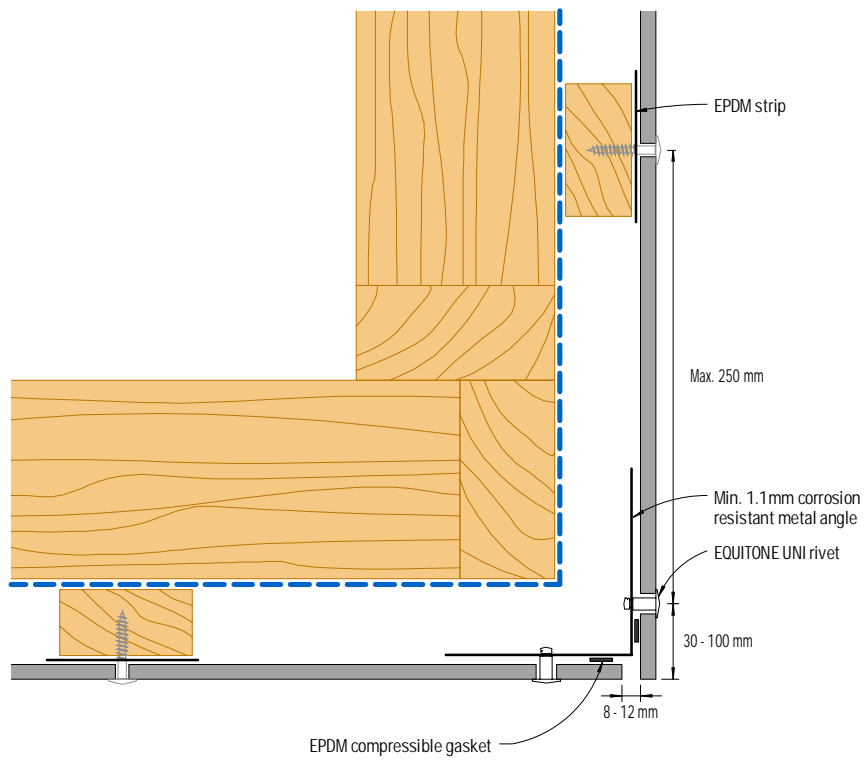


Figure 24: External corner - Detail 1

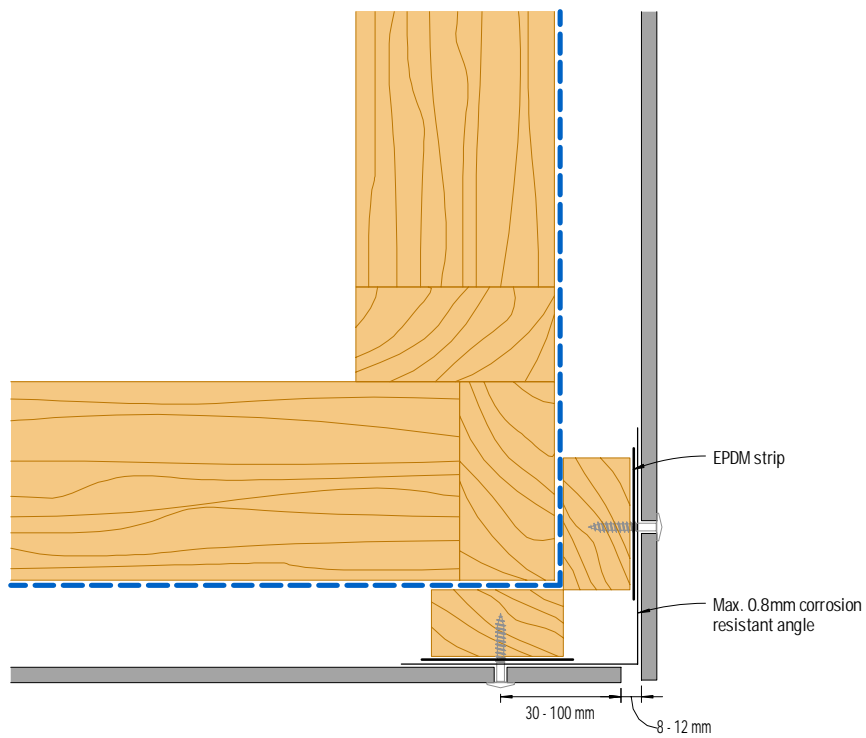


Figure 25: External corner - Detail 2

Note
 For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

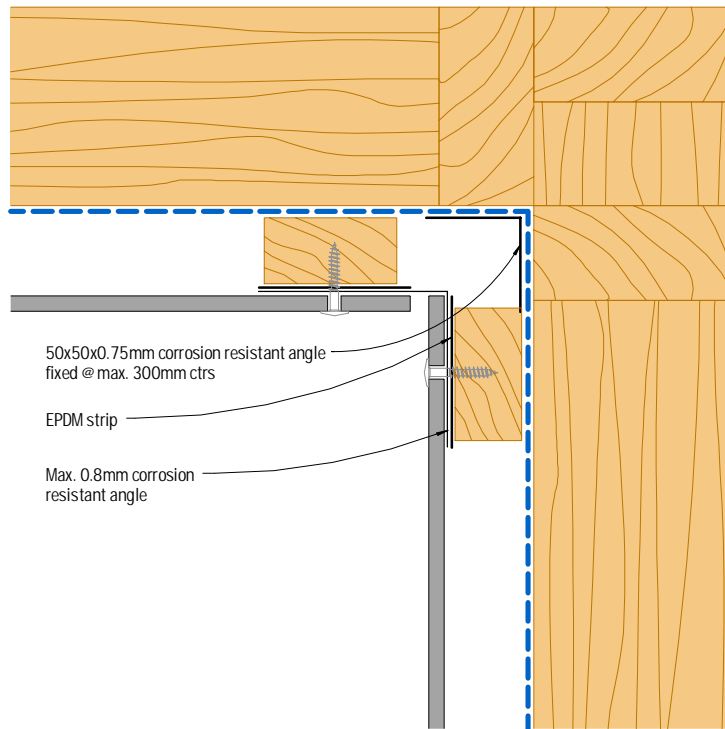


Figure 26: Internal corner

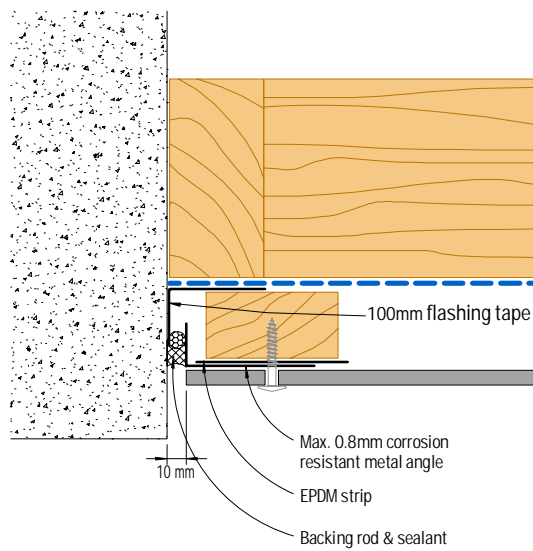


Figure 27: Abutment

Note
For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

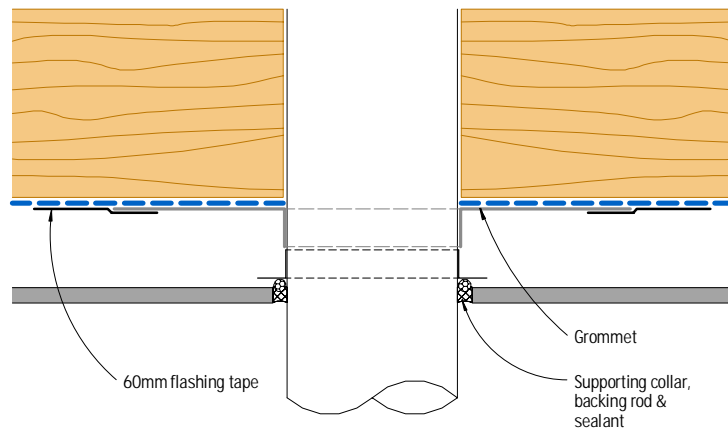


Figure 28: Pipe penetration - Plan view

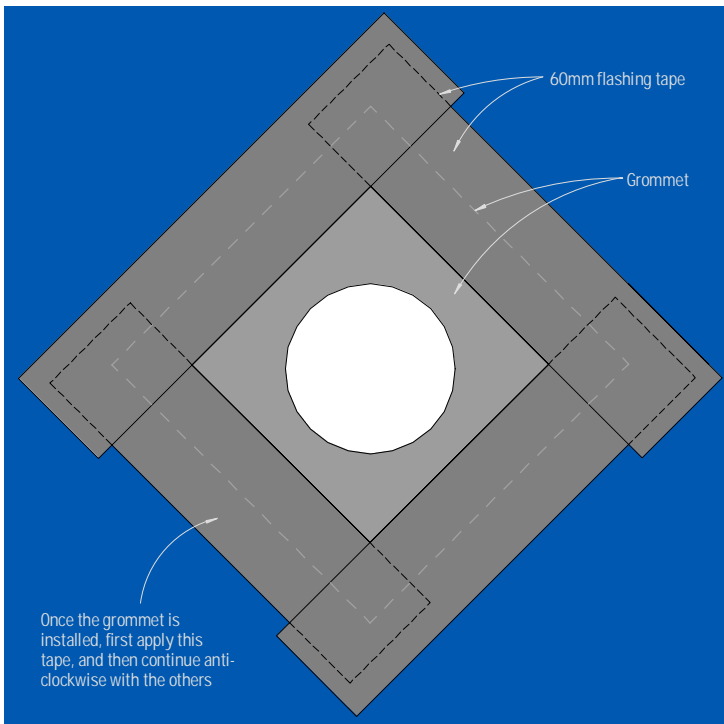


Figure 29: Pipe penetration - Elevation

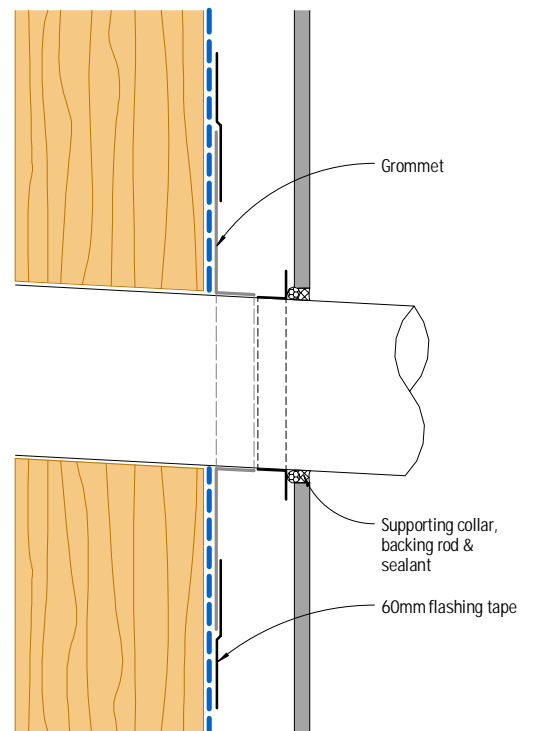


Figure 30: Pipe penetration - Section

Note
For EQUITONE [materia] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

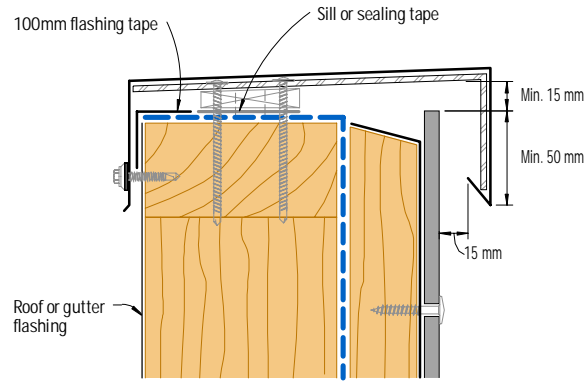


Figure 31: Capping - Detail 1

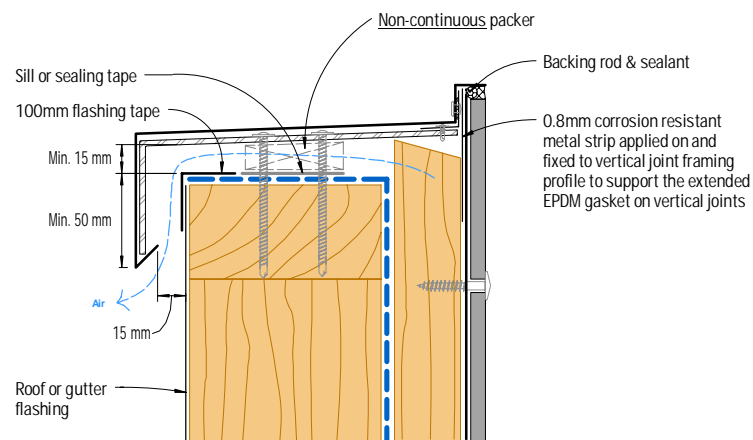


Figure 32: Capping - Detail 2

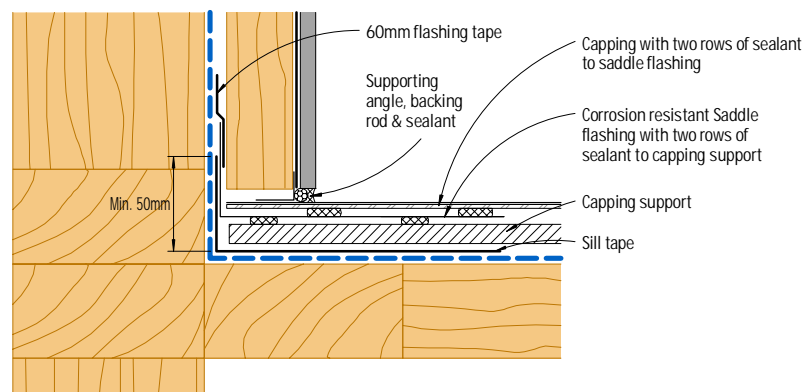


Figure 33: Parapet junction - Section

Notes

- 1) Capping '2' will involve further maintenance requirement in order to maintain the seal at the interface with the panel. Any deterioration of the sealant may result in panel staining, and will compromise the weatherproofing performance. Use UV stable and resistant external grade sealant.
- 2) For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

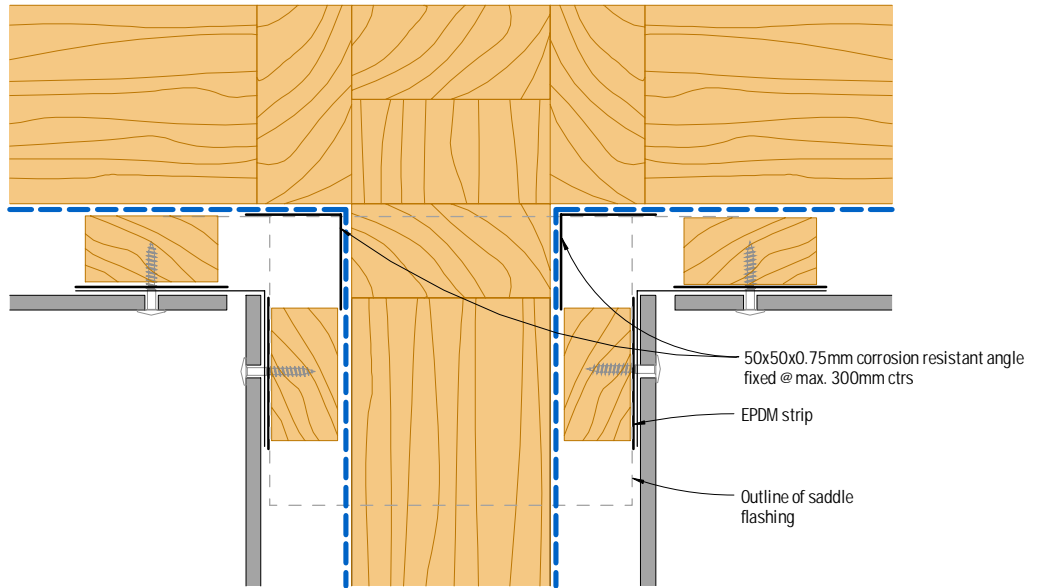


Figure 34: Parapet junction - Plan view

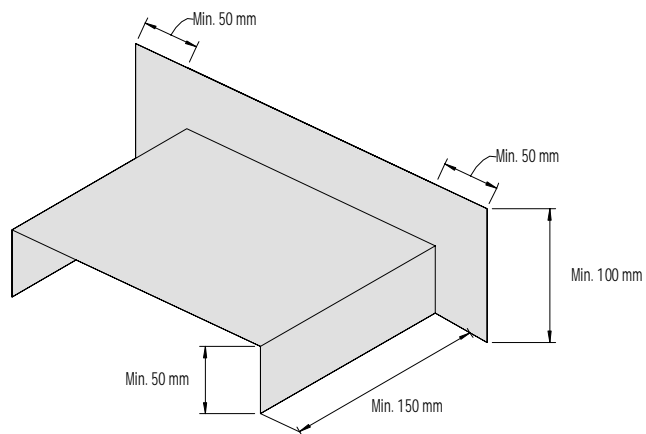
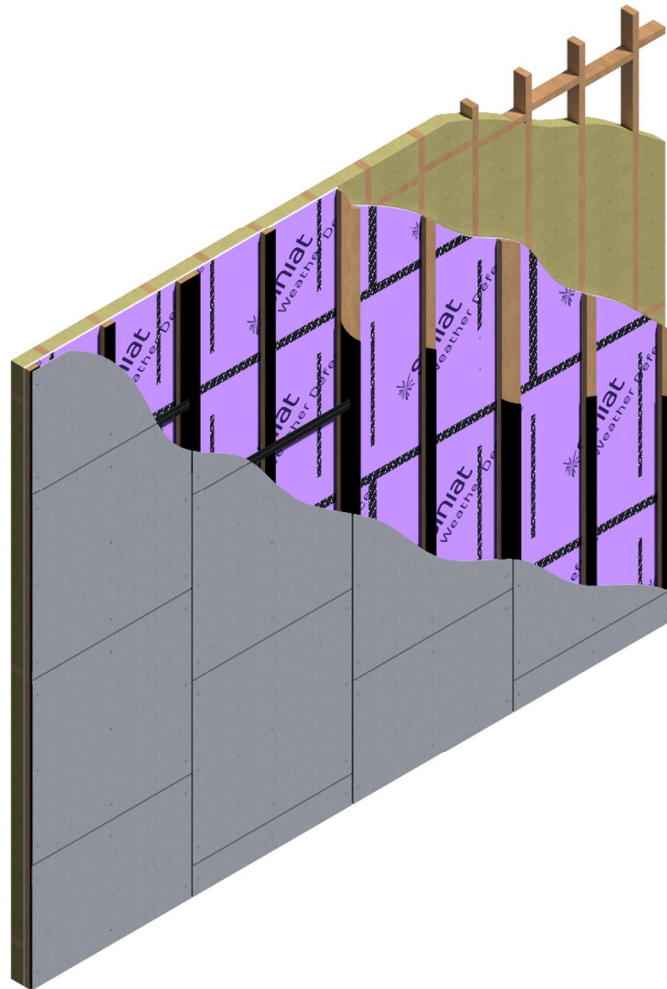


Figure 35: Corrosion resistant saddle flashing

Note
 For EQUITONE [material] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.

EQUITONE system



Siniat WEATHER DEFENCE® rigid air barrier

timber batten construction

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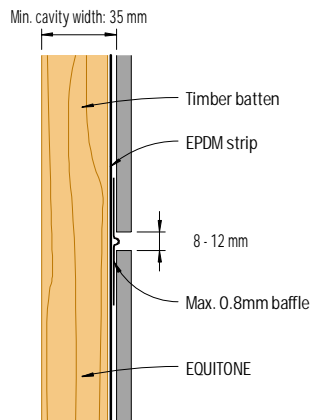


Figure 1: Baffled horizontal joint
(Not suitable for EQUITONE [material])

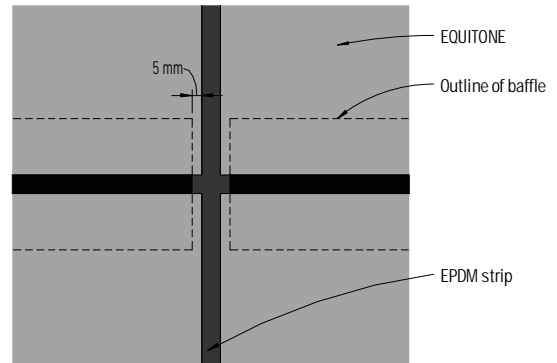


Figure 2: Baffled horizontal joint
junction with vertical joint - Elevation

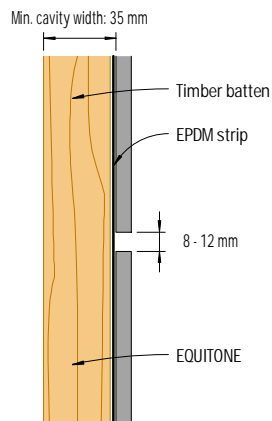


Figure 3: Open horizontal joint

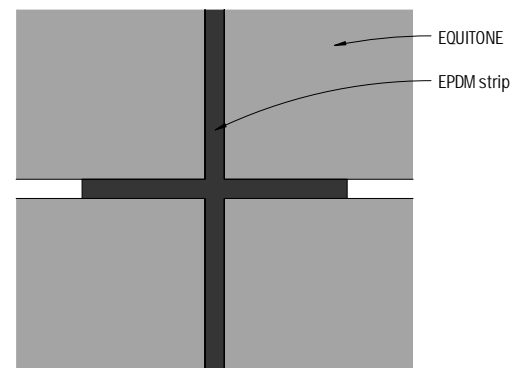


Figure 4: Open horizontal joint junction
with vertical joint - Elevation

Note

- 1) In Figure 4, visible part of the support frame (battens) and weather barrier may be coated black with suitable paint.
- 2) EPDM strip located on vertical joints and exposed to UV may be subject to some degree of deterioration in time, which could also be aesthetically unappealing. A coloured, corrosion resistant metal strip with maximum thickness of 0.8 mm may be alternatively used for more durability.

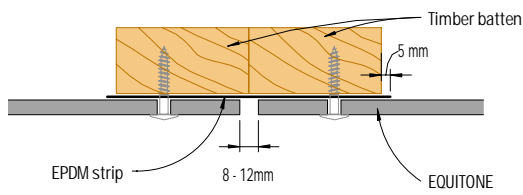


Figure 5: Vertical joint - Detail 1

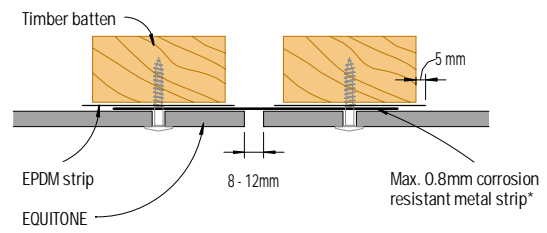


Figure 6: Vertical joint - Detail 2

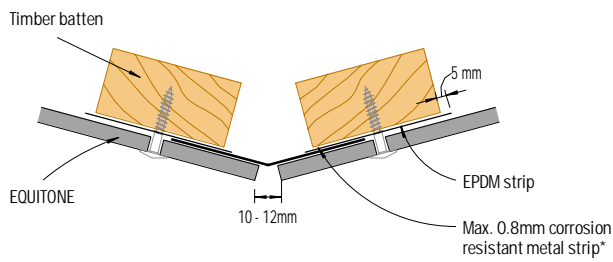


Figure 7: Vertical joint - Detail 3

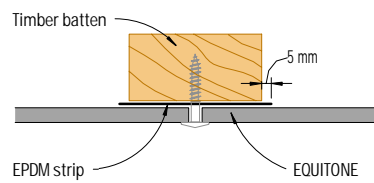


Figure 8: Intermediate panel fixings connection

Note

In Figure 6 & 7, the metal strip should be fixed ONLY to one of the battens (either left or right) where allowance for horizontal and/or vertical movement of the cladding frame is required.

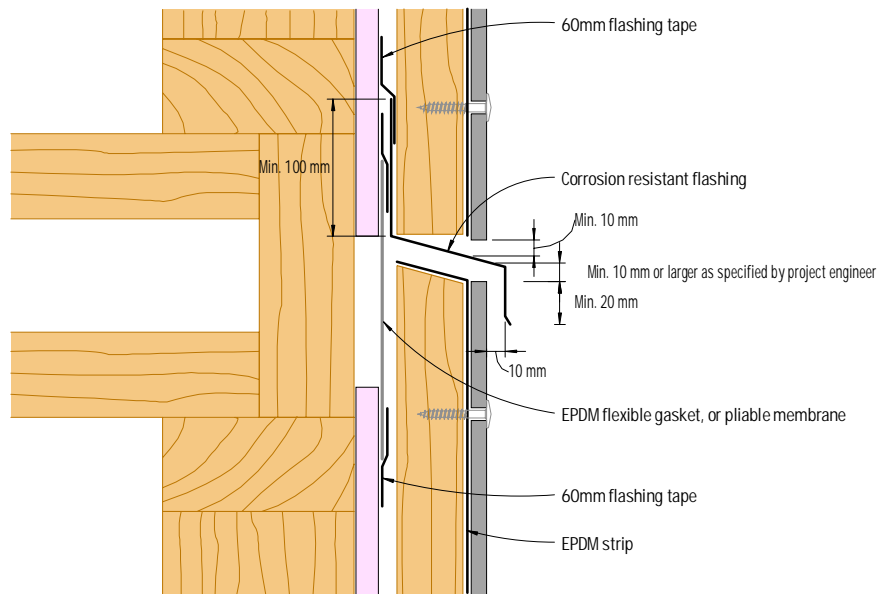


Figure 9: Horizontal control joint - Detail 1

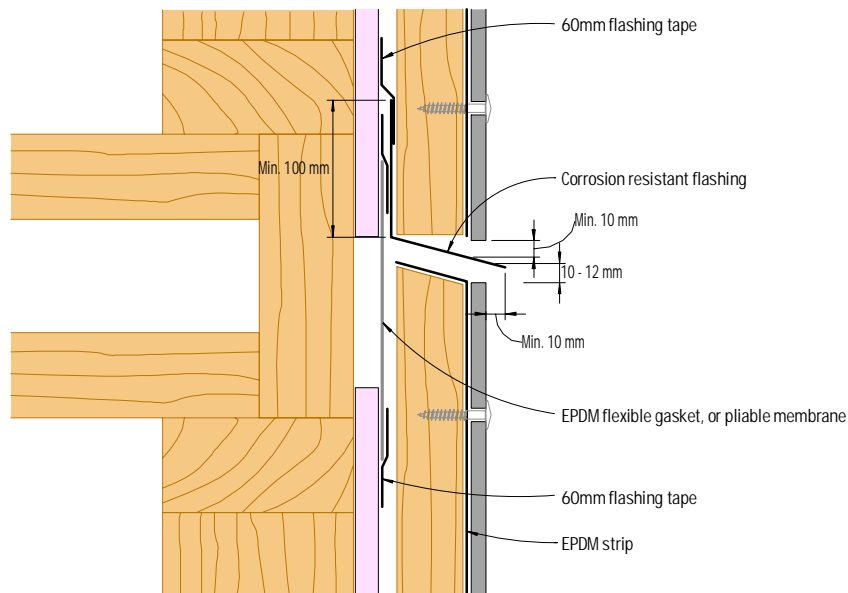


Figure 10: Horizontal control joint - Detail 2

Notes

- 1) Support frame (batten) and Siniat Weather Defence must NOT be fixed crossing over a control joint.
- 2) Allowance for movement at the location of any control joint must be made in the cladding and its support frame design and installation. Panel must NOT be fixed bridging over any control joint.
- 3) In Figure 10, should a larger gap be required under the inter-storey flashing, the weatherproofing performance of the detail shall be evaluated by project engineer.

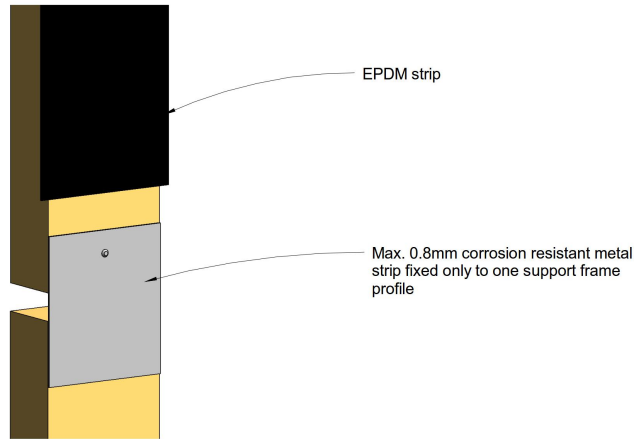


Figure 11: EPDM gasket support over control joint or the like

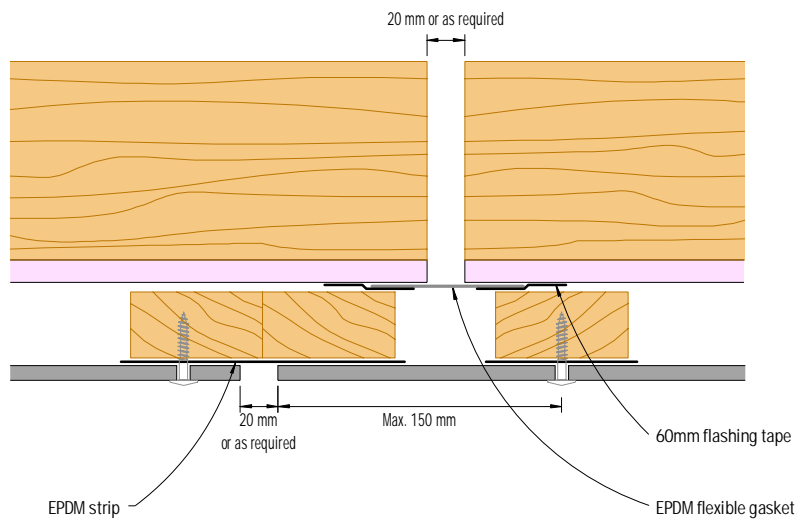


Figure 12: Vertical control joint

Notes

- 1) Support frame (batten) nor Siniat Weather Defence must NOT be fixed crossing over a control joint.
- 2) Allowance for movement at the location of any control joint must be made in the cladding and its support frame design and installation. Panel must NOT be fixed bridging over any control joint.

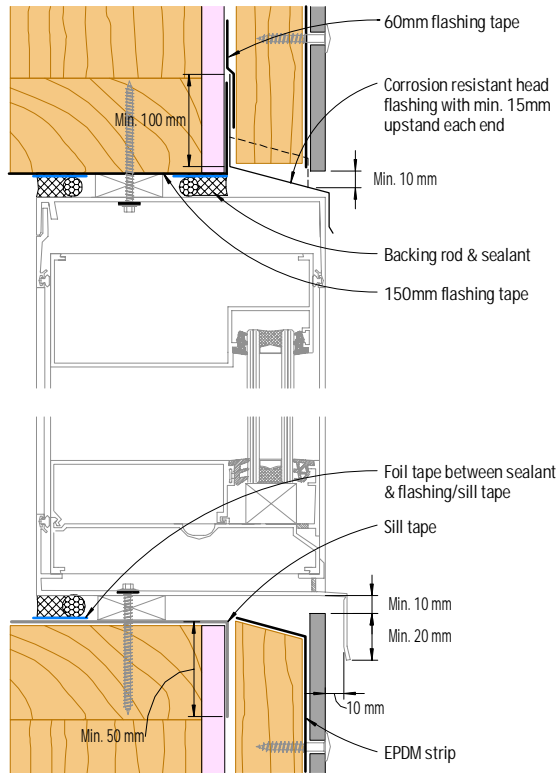


Figure 13: Flush window - Head and sill

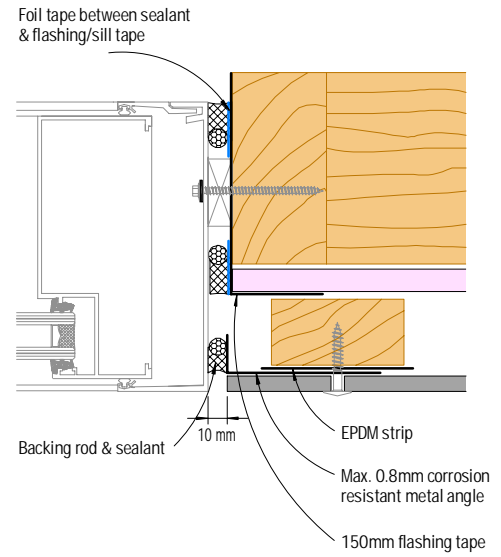


Figure 14: Flush window - Jamb

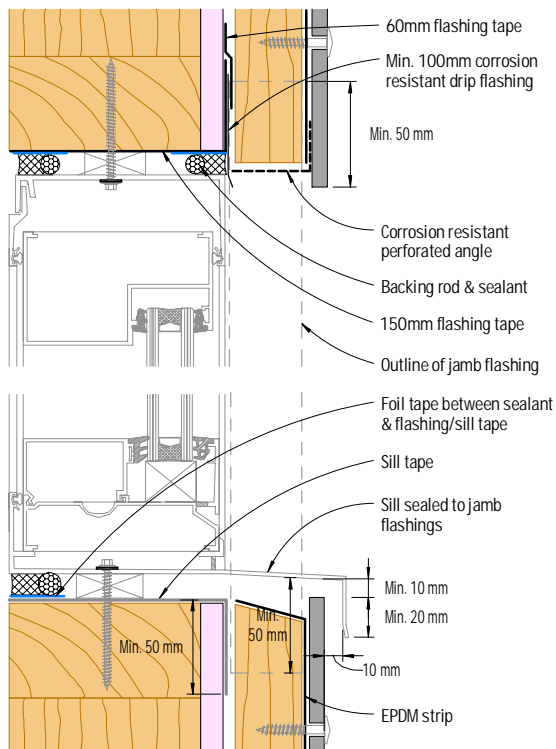


Figure 15: Recessed window - Head and sill

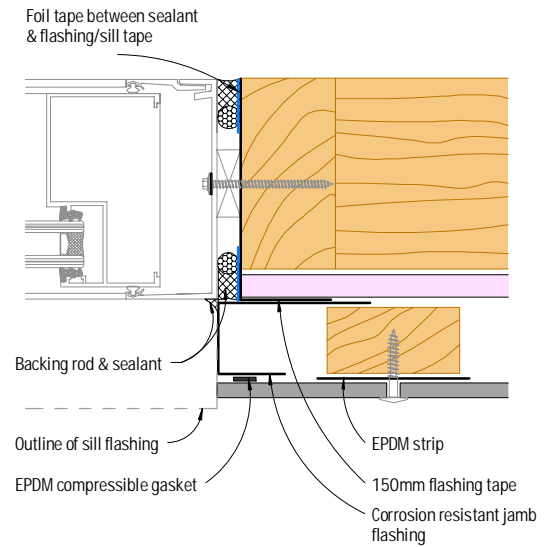


Figure 16: Recessed window - Jamb

Note

ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.

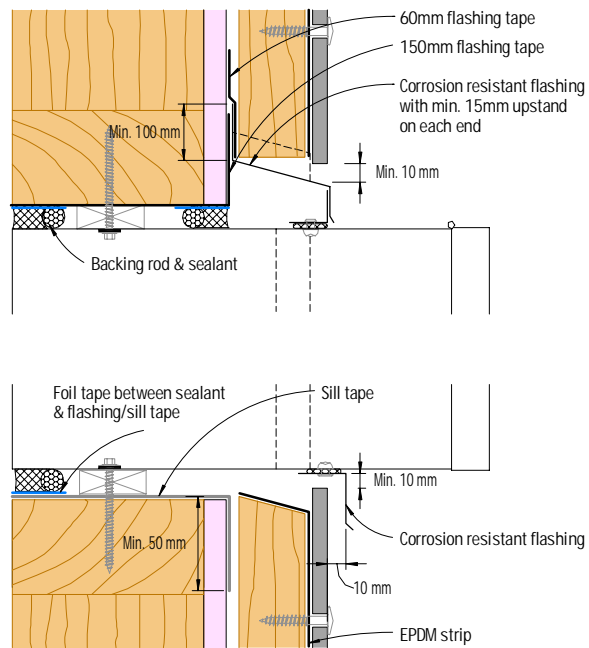


Figure 17: Meter box - Section

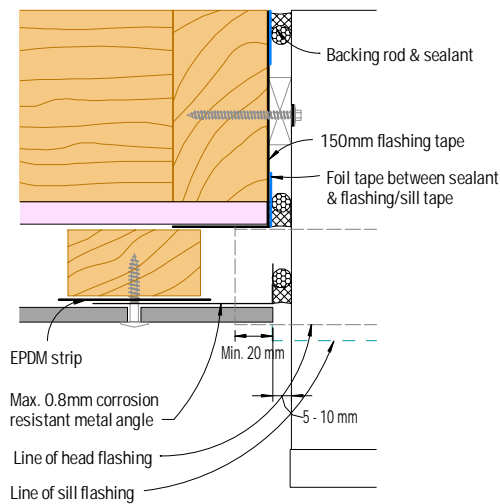


Figure 18: Meter box - Plan view - Detail 1

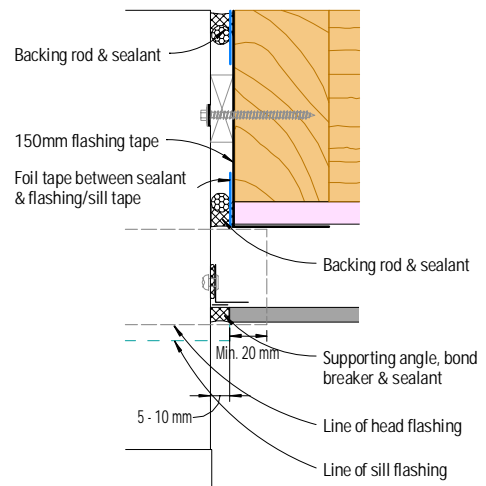


Figure 19: Meter box - Plan view - Detail 2

Note

ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.

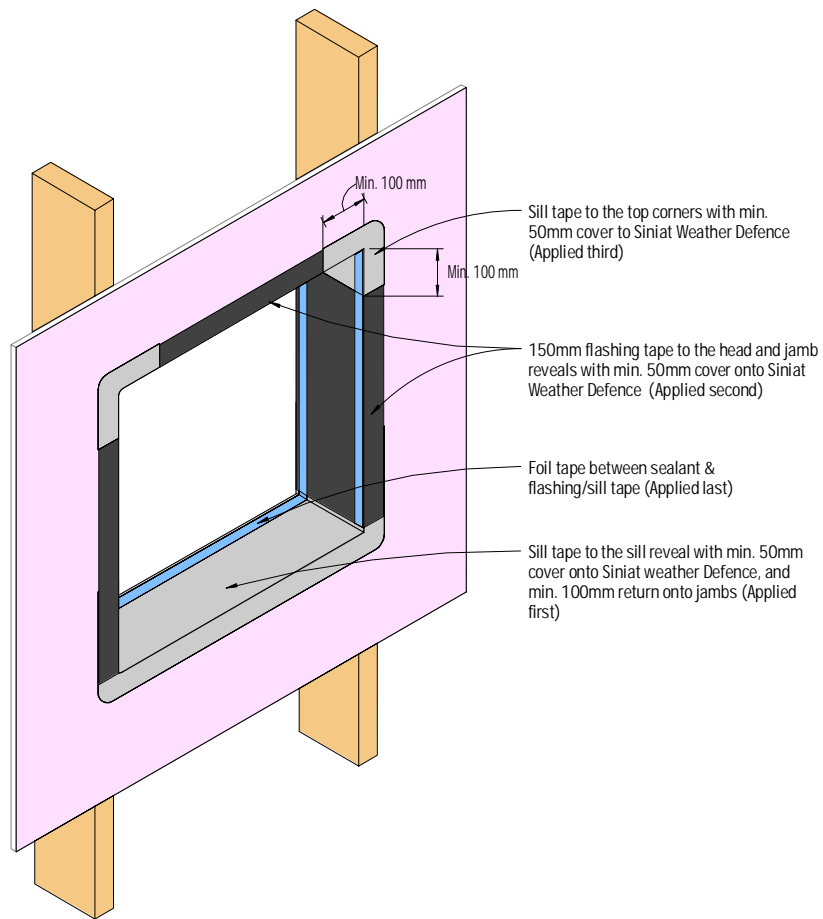


Figure 20: Isometric view of window/meter box opening - Tape application

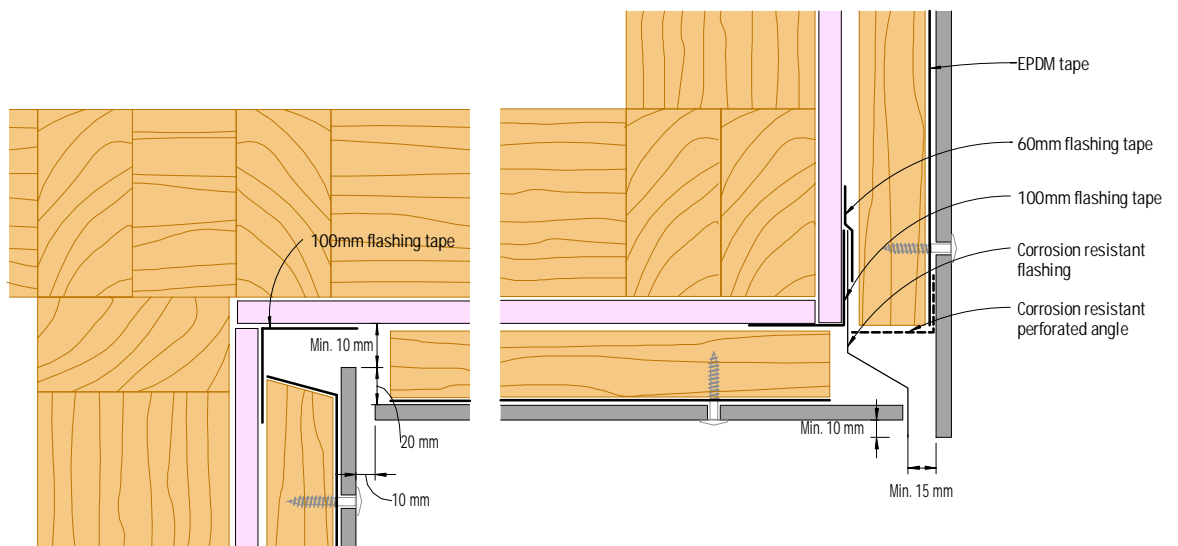


Figure 21: Soffit junction

Notes

- 1) ONLY sealant compatible with the foil tape should be used. Should any sealant be intended to be used directly on the flashing and/or sill tape it must be confirmed with its manufacturer to ensure compatibility with these tapes in accordance with the relevant standards.
- 2) Support frame (batten) and Siniat Weather Defence must NOT be fixed crossing over a control joint.
- 3) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

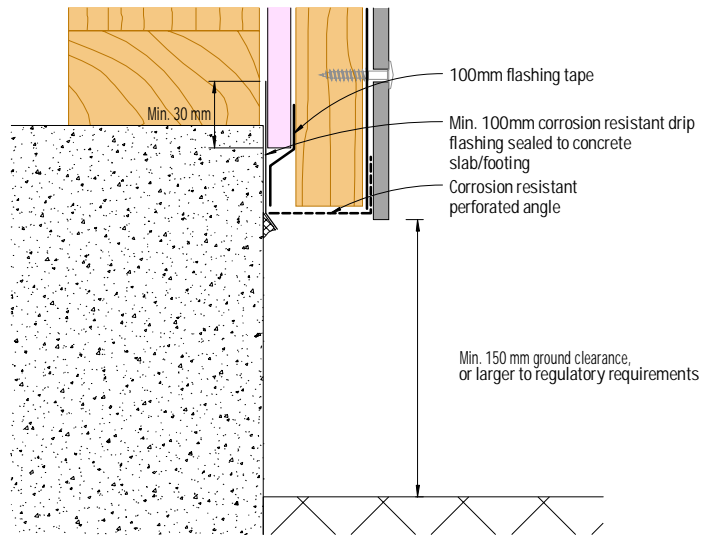


Figure 22: Base detail

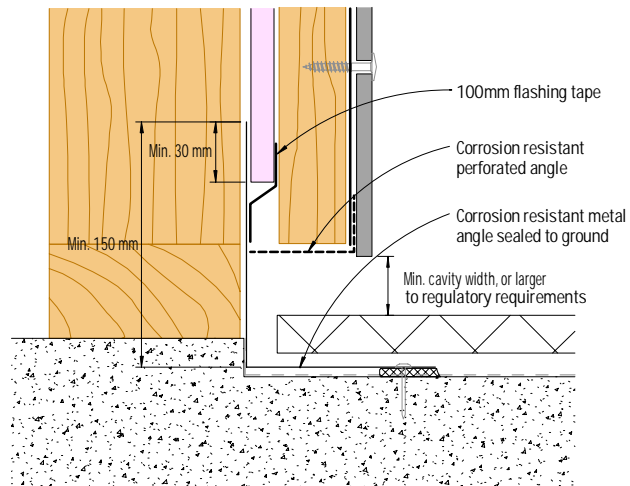


Figure 23: Base detail - Covered area

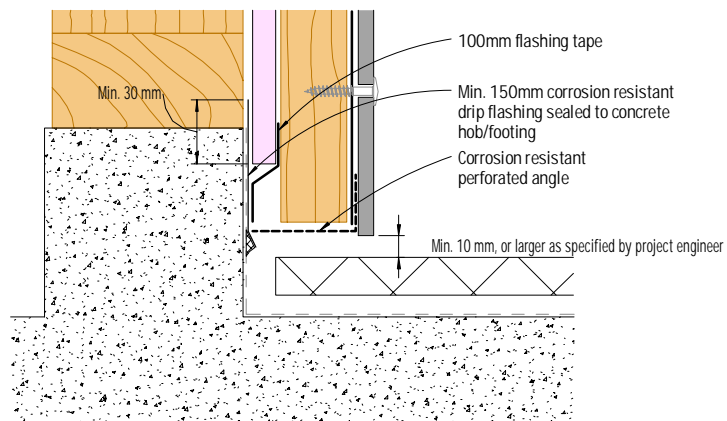


Figure 24: Base detail - Balcony

Notes

- 1) For EQUITONE [materia], minimum ground clearance is **300mm**.
- 2) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

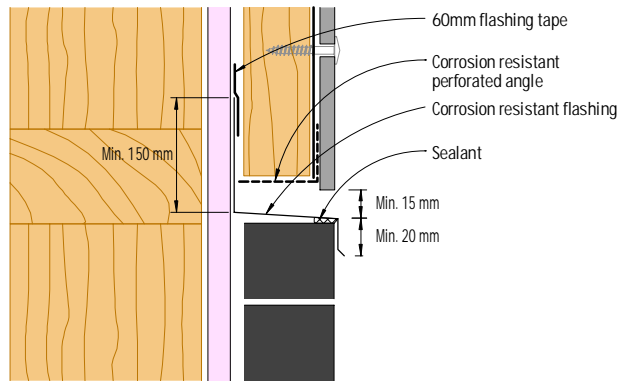
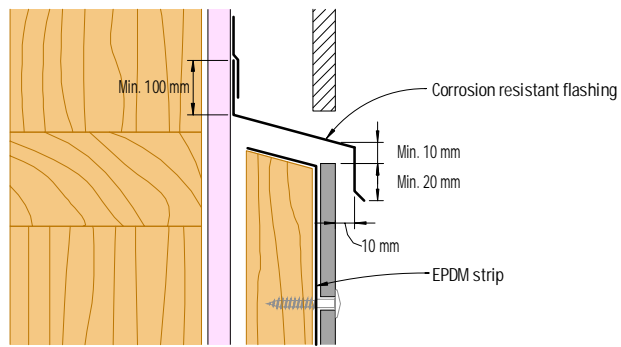


Figure 25: Junction with other materials - flush detail

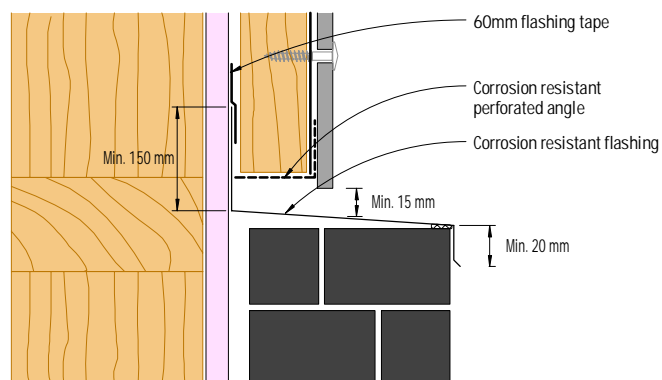
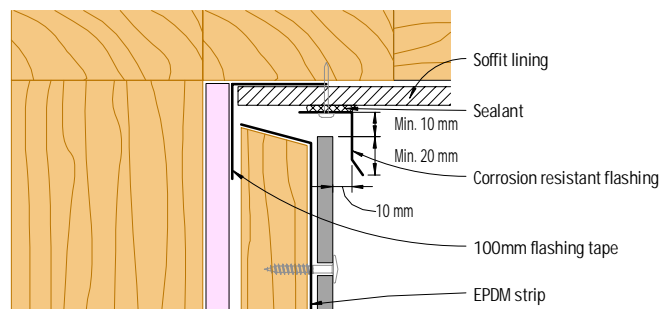


Figure 26: Junction with other materials, eaves or the like - recessed detail

Notes

- 1) Support frame (batten)s and Siniat Weather Defence must NOT be fixed crossing over a control joint.
- 2) Corrosion resistant perforated angle shall be of max. thickness of 0.8mm where located between panel and support frame, and be of min. 50% open area.

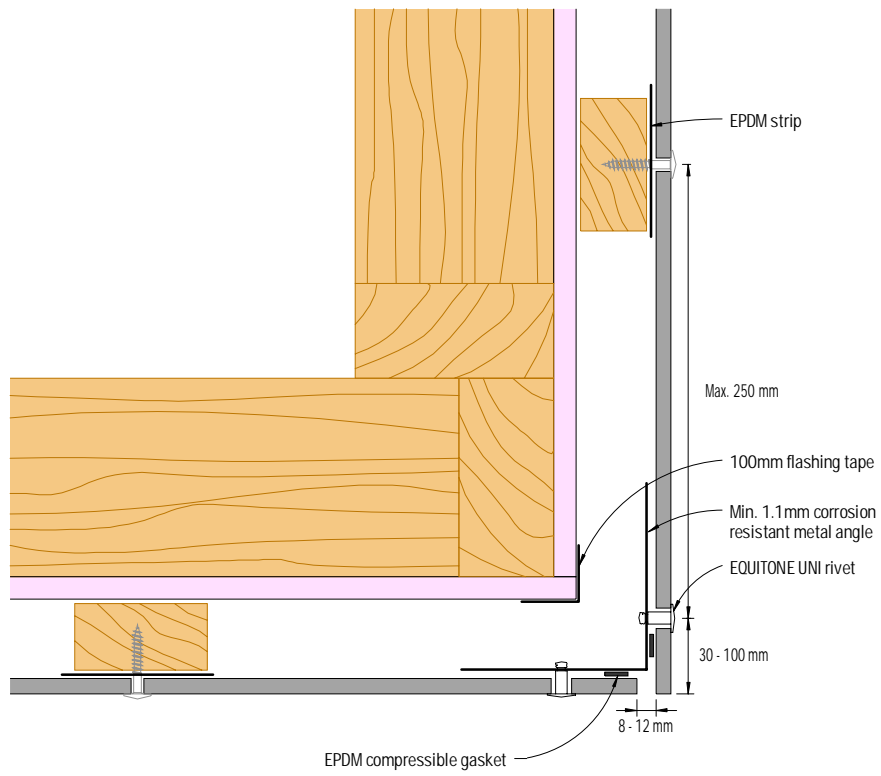


Figure 27: External corner - Detail 1

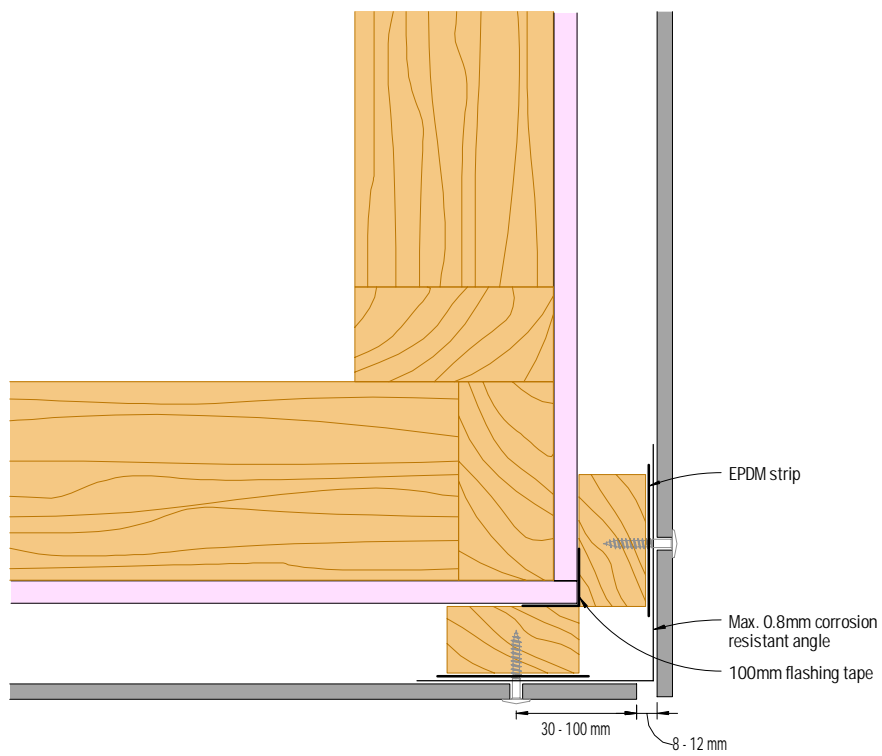


Figure 28: External corner - Detail 2

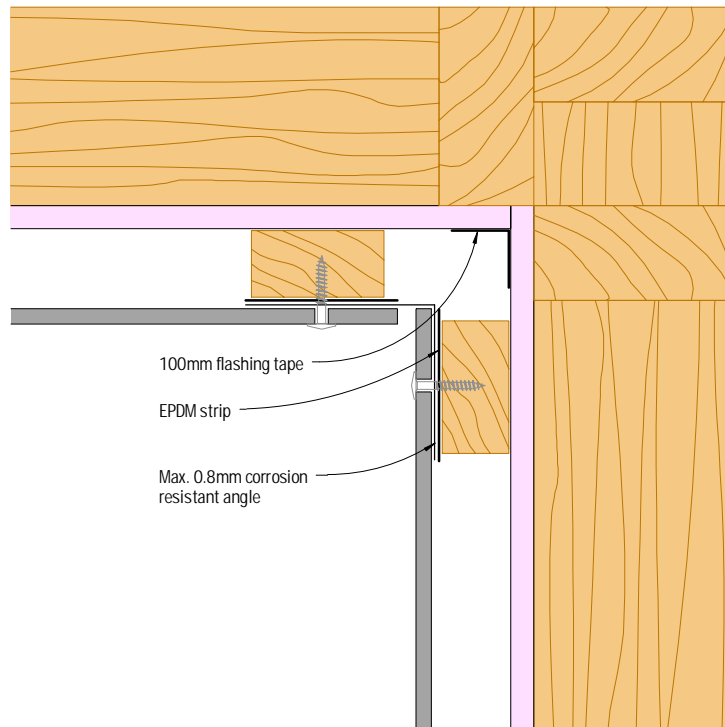


Figure 29: Internal corner

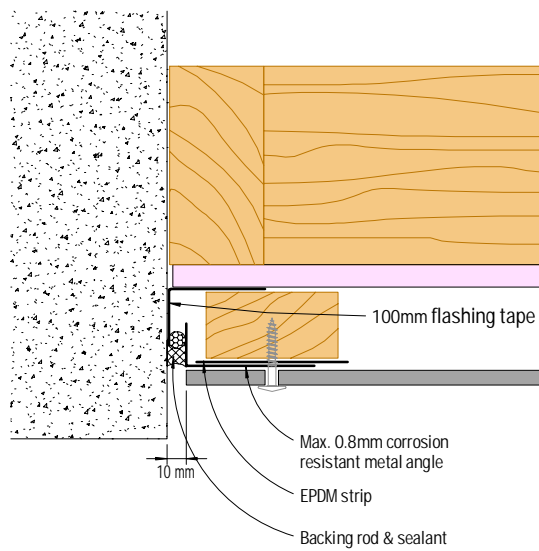


Figure 30: Abutment

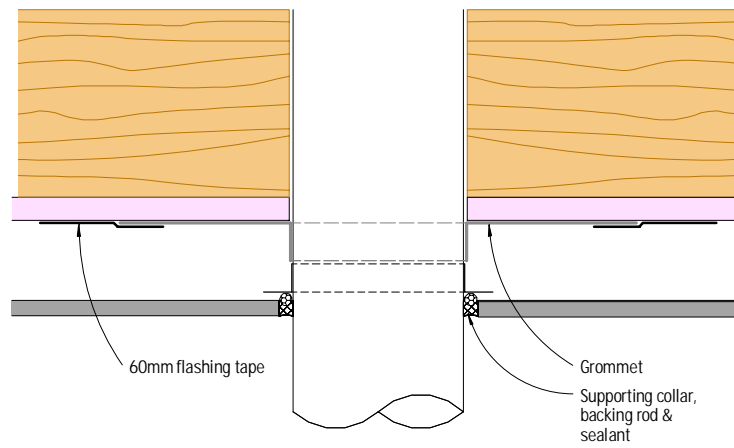


Figure 31: Pipe penetration - Plan view

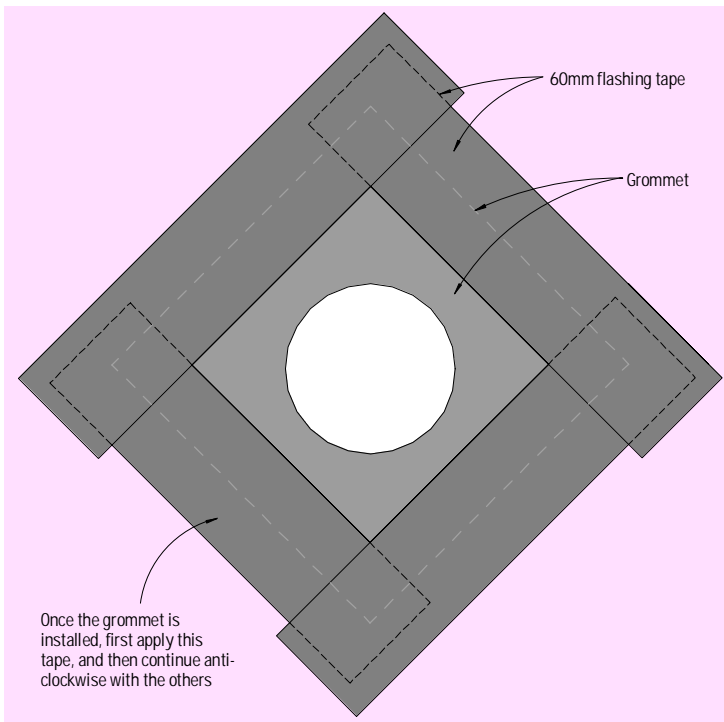


Figure 32: Pipe penetration - Elevation

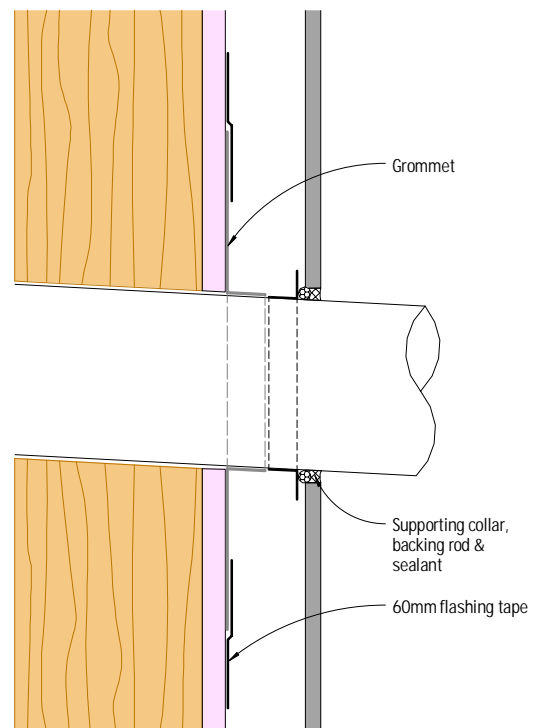


Figure 33: Pipe penetration - Section

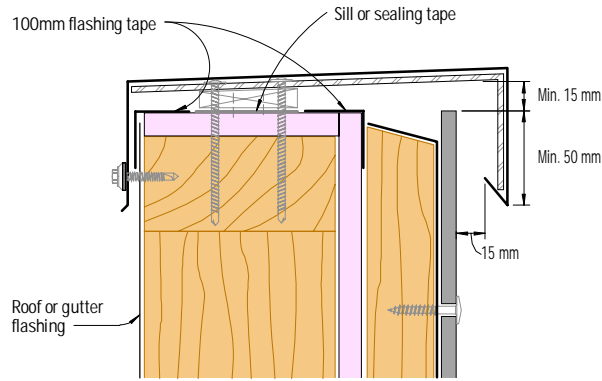


Figure 34: Capping - Detail 1

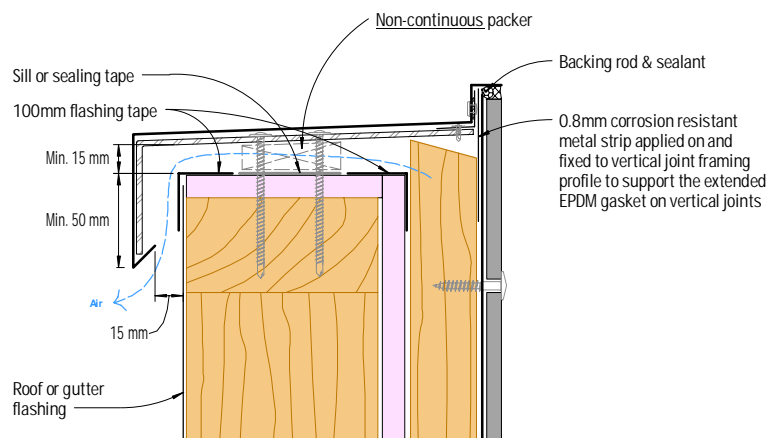


Figure 35: Capping - Detail 2
(Not suitable for EQUITONE [material])

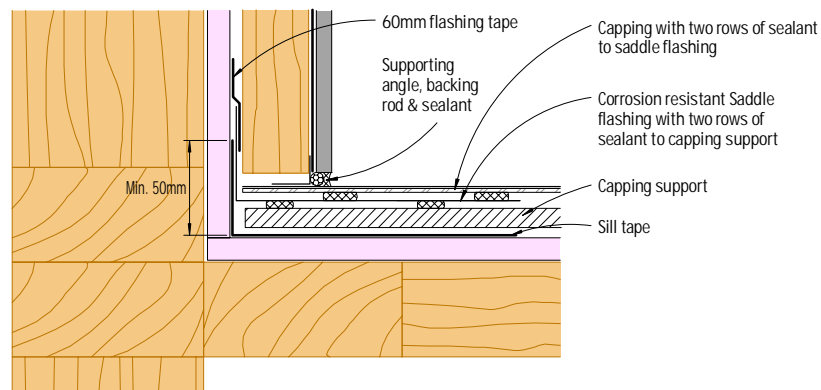


Figure 36: Parapet junction - Section

Notes

1) For EQUITONE [material], the following capping dimensions should be followed.

- A minimum 20mm between panel face and rear of the capping
- A minimum 50mm overlap with the panel for building up to 8m
- A minimum 80mm overlap with the panel for building up to 20m
- A minimum 100mm overlap with the panel for building over 20m

2) Capping '2' will involve further maintenance requirement in order to maintain the seal at the interface with the panel. Any deterioration of the sealant may result in panel staining, and will compromise the weatherproofing performance. Use UV stable and resistant external grade sealant.

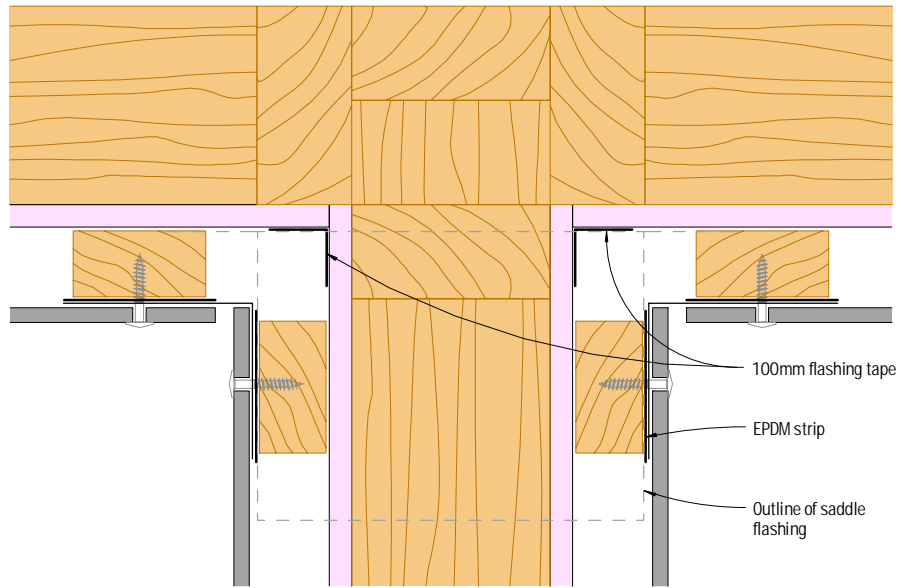


Figure 37: Parapet junction - Plan view

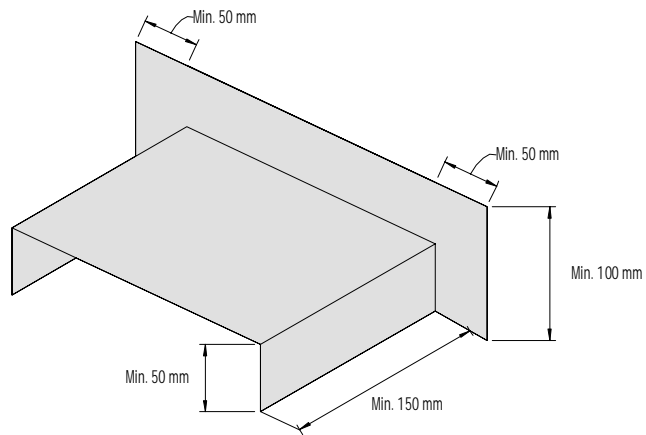


Figure 38: Corrosion resistant saddle flashing

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