

## 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 the F3P1 & H2P2 of the NCC 2022.

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 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.

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## Components

#### Materials

EQUITONE [lines]	EQUITONE [lunara]	EQUITONE [tectiva]	EQUITONE [natura]	EQUITONE [pictura]	EQUITONE [inspira]
	The M	inerals		The Colourfuls	The Graphicals
Maximum available p	oanel sizes	_	_		_
EQUITONE [tectiva] EQUITONE [lines] 10 EQUITONE [lunara]	) mm thick	1220 2500	1220	3050	
EQUITONE [natura] EQUITONE [natura] F EQUITONE [pictura] EQUITONE [inspira]	R0 8 and 12 mm thick 8 and 12 mm thick	1250 2500	1250	3100	
Panel fixings UNI Screw				~~~~	
Colour coded and ave Stainless Steel 304 (	ailable in the following ma (A2)	aterials and grades:		Contraction of the second seco	Б

Available with additional protective coating for C5 corrosion zone

Stainless Steel 316 (A4)

Notes For EQUITONE [natura] PR0 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® 66703, 12mm Tesa® 61102, or 12mm PVC Tesa® 60106

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 2022 F3P1 & H2P2 to the following wind pressures calculated to AS1170.2. Serviceability wind pressure:  $\pm 2$ KPa Ultimate wind pressure:  $\pm 3$ 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 [materia]. Refer to EQUITONE technical team for further advice.

#### Weather resistive barrier option 2

Siniat WEATHER DEFENCE<sup>®</sup> rigid air barrier

Note

Note Siniat WEATHER DEFENCE\* is tested and certified with EQUITONE facade systems to AS4284 for the purpose of compliance with NCC 2022 F3P1 & H2P2 to the following wind pressures calculated to AS1170.2. Serviceability wind pressure: ±2.5KPa Ultimate wind pressure: ±4.5KPa Siniat WEATHER DEFENCE\* shall be applied in accordance with Siniat WEATHER DEFENCE\* installation middlence 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<sup>1</sup> 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 KAFLEX for cable penetrations. pro clima ROFLEX and KALFEX are used with both weather resistive barrier options.

<sup>1</sup> Foil tape is optional and not required when using sealants which are compatible with TESCON EXTOSEAL® and EXTORA® and SOLITEX EXTASANA®. Check with the sealant manufacturer for compatibility with pro clima products.









## 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 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
- o 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
- o Dissipates radiant heat
- o 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
- o Proven to be a more sustainable and healthier façade construction
- o 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 2: Baffled horizontal joint junction with vertical joint - Elevation



Figure 3: Vertical joint - Detail 1

Note

1) For EQUITONE [materia] 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

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



Notes

 Support frame profiles (battens) must NOT be fixed crossing over a control joint nor to a deflection head.
 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 [materia] refer to EQUITONE construction details with Siniat WEATHER DEFENCE.















Figure 12: Recessed window - Head and sill

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 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 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 [materia] 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 [materia] 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 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 [materia] 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







Figure 27: Abutment









Figure 29: Pipe penetration - Elevation

Figure 30: Pipe penetration - Section



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



Figure 34: Parapet junction - Plan view



Figure 35: Corrosion resistant saddle flashing

# EQUITONE system



Siniat WEATHER DEFENCE® rigid air barrier

timber batten construction

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#### Min. cavity width: 35 mm



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



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 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 10: Horizontal control joint - Detail 2

Notes

Support frame (batten) and Siniat Weather Defence must NOT be fixed crossing over a control joint.
 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

Support frame (batten) nor Siniat Weather Defence must NOT be fixed crossing over a control joint.
 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 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



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

Notes

 Support frame (batten)s and Siniat Weather Defence must NOT be fixed crossing over a control joint.
 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 30: Abutment







Figure 32: Pipe penetration - Elevation

Figure 33: Pipe penetration - Section





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



Figure 36: Parapet junction - Section

Notes

- 1) For EQUITONE [materia], 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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