



TECHNICAL MANUAL

SELEKTA Timber Composite Cladding

1. Introduction
2. Physical Properties
3. Fire Performance
4. Installation

1.1 About This Manual:

This manual has been developed to effectively assist fabricators and contractors to work with SELEKTA. Due to the uncontrollable conditions onsite and different methods of job scope, as well as the variable skills and judgment of installers and the quality of equipment, tools, etc, the suggestions and recommendations contained in this manual are provided without warranty. The information and recommendations herein are believed to be correct at time of publishing.

BLUECHIP reserves the right to revise the contents of this manual without prior notice. Any construction or use of the product must be in accordance with all local zoning and/or building codes and in accordance with the current NCC at the time of use. Except as contained in a written warranty certificate, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

1.2 Company Background:

Founded in 2003 by five brothers, BLUECHIP has grown every year since to become one of Australia's leading suppliers of architectural building envelopes. BLUECHIP's product range covers the complete system from the structure out including all types of cladding materials, composite decking, sub-framing, insulation, waterproofing and fixings.

With offices in Sydney, Melbourne and Perth, BLUECHIP has supplied more than 3,000,000m² of materials to Australian projects since 2003. Our commitment to innovation and ongoing investment in R&D ensures BLUECHIP will continue to lead the market with BCA/NCC compliant facade solutions in the years ahead.

For architects and consultants, BLUECHIP's wide range of different materials and 'complete-system' approach enables the creation of inspiring high-performance facades. For builders and contractors, BLUECHIP's large local stock, well established supply chains and genuine appreciation for our clients means you can trust us to deliver as promised every time.

1.3 Company Details:

Company: Blue Chip Group Pty Ltd
ABN: 98 162 282 064
Head Office: 16 Ashby Close, Forrestfield WA 6058
Phone: 1300 945 123
Email: sales@bluechipgroup.net.au

Important Note:

SELEKTA is NOT deemed-to-satisfy non-combustible and accordingly, it is only compliant for type C construction projects in Class 2-9 buildings and Class 1 buildings up to BAL 29. For non-combustible and BAL FZ timber cladding use [ULTRAWOOD](#) which is DTS non-combustible in accordance with NCC 2019 and NCC 2022 and compliant for use on all buildings.



1.4 Product Description:

Timber Composite Cladding

Made in Germany, SELEKTA timber composite cladding is a unique, prefinished product with a beautiful timber grain embossed surface. Designed for stability and longevity with style, SELEKTA timber composite cladding is eco-friendly, maintenance free and incredibly easy to install. SELEKTA timber composite cladding has been subjected to extreme endurance tests, including swell tests and UV tests. After being subjected to a wide range of extreme environmental conditions and temperature fluctuations between -30° and +70° Celsius, the product responded brilliantly, outlasting wind and weather for 30 years.

NCC Fire Compliance*

SELEKTA timber composite cladding is compliant with NCC 2019 and NCC 2022 for use as external cladding on all type C* construction projects in class 2-9 buildings and class 1 buildings up to BAL 29, ensuring you are specifying a compliant product tested to Australian standards.

BAL 29 Fire Rating*

SELEKTA timber composite cladding has been tested to AS fire standards and achieves a BAL 29 fire rating along with excellent group rating as per AS 3837 for exterior cladding.

AS 5113 Fire Testing*

SELEKTA timber composite cladding has been tested as per the new AS 5113 full-scale facade fire test which is required for CV3 performance-based solutions on all type A & B construction.

Maintenance Free

SELEKTA timber composite cladding is guaranteed not to rot, split, warp or check. Highly resistant to termites and fungal decay, it does not need any on-going re-coating.

Secret Fixing

SELEKTA timber composite cladding comes with a simple tongue and groove fixing system with machined screw slots for ease and speed of installation saving any need for pre-drilling.

Non-Leaching

SELEKTA timber composite cladding is the only timber-look cladding that cannot leach as there are no tannins impregnated into the profile allowing for a beautiful look that will last.

Acoustic Rating

Laboratory acoustic testing results are available. SELEKTA timber composite cladding is the perfect material to use on multi-residential high-density developments to improve acoustics.

Full Warranty

SELEKTA timber composite cladding comes with a comprehensive 10-year warranty backed by the German based manufacturer. Guaranteed quality and peace of mind for your project.

Important Note:

SELEKTA is NOT deemed-to-satisfy non-combustible and accordingly, it is only compliant for type C construction projects in Class 2-9 buildings and Class 1 buildings up to BAL 29. For non-combustible and BAL FZ timber cladding use [ULTRAWOOD](#) which is DTS non-combustible in accordance with NCC 2019 and NCC 2022 and compliant for use on all buildings.

1.5 More Information on SELEKTA:

<https://www.bluechipgroup.net.au/timber-cladding-perth/timber-composite-cladding-perth.html>



2.1 Physical Description:

The SELEKTA particle wood core consists of processed timber exclusively from untreated pulpwood in the form of wood shavings, thinning material and round timber from sustainable, domestic forestry. Imported timber is not used - especially from tropical climates. The binding agent used is a thermosetting artificial resin with building authority approval for outdoor use. As a wood preservative, we use an eco-friendly boron-based product with building authority approval that does not contain lindane or PCP. For low flammability a mixture of boric acid and borax is used as a fire protection agent. No isocyanates, phosphates or halogens are added. Several layers of paper are impregnated with artificial resins for use as a coating similar to high pressure exterior laminate. The surface and core are fused together without seams in a single process under the application of high pressure and heat.

2.2 Finishing Process:

Dekopan Plus (Wood-look) colours have multi-layer coating, printed or dyed and a transparent weather resistant surface coating on the decor side. Colorpan colours (Solid colours) have a base coating of paper impregnated with melamine resin, followed by coloured surface coating using a pure, water-based acrylate. The pigments added are free of toxic heavy metals (no lead, chrome or cadmium). The rear side is brown or milky white from the production process and offers no colour options.

2.4 Technical Data:

ITEM	TEST STANDARD	UNIT	RESULT
Material Density	Actual	Kg/m ³	800-950
Flexural Strength	EN 310 / EN 438	N/mm ²	40-45
Elasticity Modulus	EN 310 / EN 438	N/mm ²	4-6
Transverse Tensile Strength	EN 319	N/mm ²	2-3
Moisture Content	EN 322	%	5-10
Swelling After Storage in Water			
▪ At 20°C After 2hrs	DIN 317	%	0.3-0.6
▪ At 20°C After 24hrs	DIN 317	%	3-5
Thermal Expansion	Actual	mm/m	1-3
Thermal Conductivity	DIN 52 612	W/mk	0.20
Water Vapour Permeability	DIN 52 615	M	5-15
Scratch Resistance	EN 438	N	0.5-1.5
Light Fastness	DIN 54 004	-	Level 8
Chemical Resistance	EN 438	-	Limited
Colour Deviation	DIN 5033	Delta E	<1

3.1 Fire Performance:

ITEM	TEST STANDARD	UNIT	RESULT
BAL Rating	AS 1530.8	Exova WF	BAL-29
Group Rating	AS 3837	Exova WF	3
Average Specific Extinction Area	AS 3837	Exova WF	2.6m ² /kg
Ignitability	AS 1530.3	AWTA	13
Spread of Flame Index	AS 1530.3	AWTA*	0
Heat Evolved Index	AS 1530.3	AWTA*	4
Smoke Developed Index	AS 1530.3	AWTA*	3



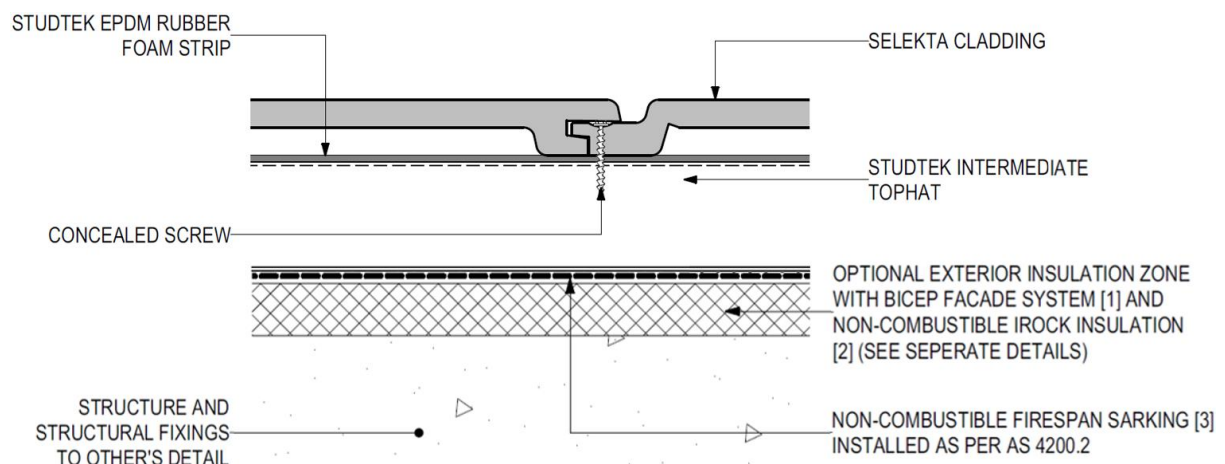
4.1 Installation:

SELEKTA is installed either vertically or horizontally using secret-fix screws to STUDTEK steel top-hats or timber framing over AS 4200.1 compliant sarking which has been installed as per AS 4200.2 to satisfy the deemed-to-satisfy (DTS) weatherproofing requirements in accordance with NCC 2022, clause F3D3. Use CLADTRIM colour-matched trims supplied by Blue Chip Group Pty Ltd or custom trims and flashings, supplied by others, for all junctions and joint details, sealed with PROLASTIK sealant as required to ensure weatherproofing.

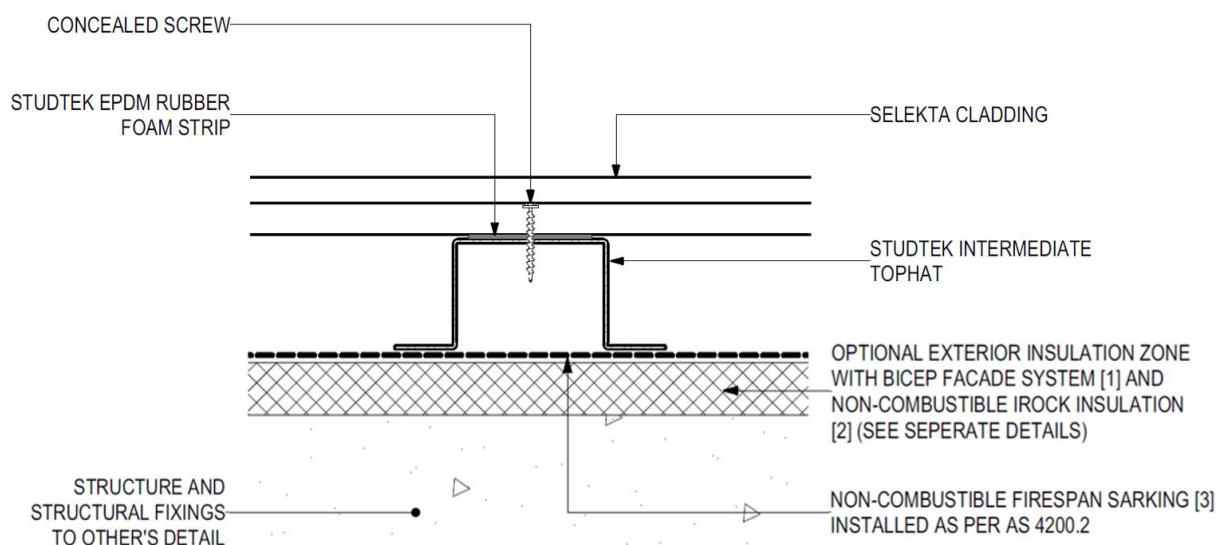
Installation Details:

The panels shall be fabricated and installed in accordance with the most recent version of the SELEKTA Cladding Install Details which are available online at www.bluechipgroup.net.au or by emailing sales@bluechipgroup.net.au or by calling **1300 945 123**. (Only PDF installation details are available online. For CAD/DWG installation details email or call as above).

Vertical Installation (Typical Plan Detail):



Horizontal Installation (Typical Plan Detail):





4.2 Acceptable System Components:

Insulated Façade System - OPTIONAL:

For an optional insulated façade system use BICEP façade brackets and support profiles with IROCK non-combustible insulation to achieve an engineered exterior insulation zone.



Sarking:

In climate zones 1-3, sarking shall be FIRESPAN DTS non-combustible vapour barrier and in climate zones 4-8, sarking shall be FIRESPAN Class 4 vapour permeable membrane, as per the requirements of NCC 2022 clause F8D3. Install and tape sarking in accordance with AS 4200.2 behind all cladding areas for DTS weatherproofing compliance as per NCC 2022 clause F3D3.



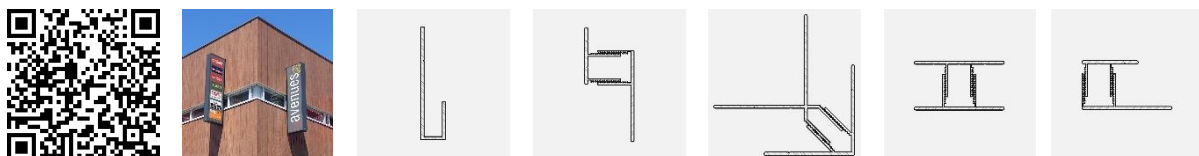
Sub-framing System:

The sub-framing system shall be structural timber or STUDTEK steel top-hats attached to the main structure (or BICEP Façade System) in a manner to ensure all applied loadings to the cladding is transferred back to the main structure. Size and spacing of top hat members shall be determined according to applied loads and deflection limitations for any given project. Top-hat centres shall be maximum 600mm centres unless otherwise approved by a structural engineer.



Colour-matched Trim Profiles:

Shall be CLADTRIM aluminium trims supplied by Blue Chip Group Pty Ltd and colour-matched to the selected cladding finish. Install and seal with PROLASTIK sealant in accordance with this manual to ensure weatherproofing.



Dissimilar Materials:

Where two surfaces of dissimilar material come into contact, such surfaces shall be separated with a layer of PVC or Polyethylene tape, or powder-coat finish as required to ensure against bimetallic corrosion.



Joint & Trim Sealant:

All penetrations and junctions shall be sealed with PROLASTIK matt NC silicone sealant supplied by Blue Chip Group Pty Ltd and installed over closed cell foam backing rod, as applicable, to manufacturer's specifications and as required for weather-proofing compliance.



Fixings:

Fasteners, including concealed screws, nuts, bolts, and other items required for connecting aluminium to aluminium or aluminium to steel shall be in accordance with AS 3566.2 and of a type to suit its application and exposure conditions.

Class 1/2:	Internal applications.
Class 3:	External applications, moderate industrial and marine applications.
Class 4:	Severe marine applications

4.3 General Fixing & Maintenance Instructions:

- SELEKTA can be installed either horizontally or vertically.
- SELEKTA is to be secret fixed using suitable screws over AS 4200.1 compliant sarking which has been installed as per AS 4200.2 to satisfy the deemed-to-satisfy (DTS) weatherproofing requirements in accordance with NCC 2022, clause F3D3.
- SELEKTA wood-look decors are equivalent to natural wood surfaces meaning that different grain textures are possible within a single shipment (plain and/or mottled). In order to obtain a uniform overall finish, we recommend considering this fact and, for example, laying out the cladding profiles before starting with the installation to ensure satisfactory appearance.
- SELEKTA boards should be at ambient temperature prior to any cutting or installation.
- SELEKTA should be acclimatized as required onsite to ensure temperature equilibrium with the surrounding environment prior to installation.
- SELEKTA can be sawn and cut to length with normal woodworking tools. Recommended blades are a hard metal saw blade with a high number of teeth, (tooth pitch approx. 10 – 15 mm). Blades should always be sharp to avoid chipping of the SELEKTA surface.
- All butt joints, cut edges and ends of boards must be sealed with SELEKTA End Sealer supplied by BLUECHIP.
- Butt joints should be limited to 1 per cladding run and joined on a suitable structural support. All butt joints and other junctions are to be sealed with a suitable sealant in accordance with the manufacturer's instructions to ensure weatherproofing.
- If more than 1 butt joint is required per cladding run, then the CLADTRIM colour-matched cover strip or z-profile should be used installed perpendicular to the cladding.



General Fixing & Maintenance Instructions (Continued):

- When installing SELEKTA, leave a minimum 10mm gap at the end of the cladding board between all trims, joints, butt joints, end stops and between any permanent structure and/or penetration to allow for thermal expansion and contraction.
- The sub-frame shall be level and aligned and installed perpendicular to cladding direction at maximum 600 mm centres. The sub-frame shall be minimum 20mm thick to provide adequate ventilation behind the cladding. The back-ventilation cross-section must not be regularly diminished by battens or other objects. The ventilation inlets and outlets must have consistent widths of at least 20mm to avoid excessive heat transfer into the building. Alternatively install onto insulated exterior cladding zone using BICEP façade system and IROCK insulation.
- The SELEKTA cladding shall be fixed at maximum 600 mm centres by inserting screws through the pre-formed slots in the cladding boards. Drivers should be adjusted to a low or medium torque and screws should not be overdriven. Always centre the screws in the punched fastening holes of the cladding profile except for a screw nearest to a butt joint which should be inserted at the edge of the slot nearest to the butt joint.
- The CLADTRIM corner profiles shall be installed as required using PROLASTIK sealant, suitable structural adhesive such as Sikaflex 11FC and flashings as required to ensure structural integrity and weatherproofing.
- To install the CLADTRIM colour-matched extrusions the base section is to be fixed to the wall or sub-frame first and then after SELEKTA cladding is installed, sealant and structural adhesive should be applied as required to ensure weatherproofing before the external CLADTRIM piece is clipped into place until it is flush with the cladding face.
- The cladding shall be installed as per the latest version of the SELEKTA Install Details allowing for any site-specific expansion and contraction requirements and using colour-matched CLADTRIM extrusions for all junctions and abutments along with custom trims and flashings supplied by others as required, to ensure weatherproofing.
- The cladding shall be installed as per the latest version of the SELEKTA Draft Specification allowing for any site-specific requirements to ensure the desired long-term performance and aesthetics are achieved.
- The cladding system shall be installed in accordance with the latest version of the Australian NCC/BCA as well as any other government regulations or requirements at any given time and for any project.
- The supporting wall must be watertight including sarking installed as per NCC 2022 clause F3D3 and there must be ventilation / drainage at the base of the wall.
- SELEKTA use is limited to non-cyclonic wind categories (N1-N6) and should not be used in cyclonic locations without additional site-specific design engineering and structural assessment relative to any given project to ensure suitability and NCC compliance.
- The cladding shall be cleaned and maintained as required to avoid any accumulation of surface contaminants and to maintain the desired performance and appearance.