

PALLISIDE WEATHERBOARDS



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Installation & Technical Guide

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Starting Out

Before installing Palliside, it is essential that the installer fully reads this Installation and Technical Guide. We recommend reading through all instructions to ensure they are understood before starting work. Icon plastics can take no responsibility for problems caused by incorrect installation.

Tools Required

Electric or hand saw (tenon or panel) - Spirit level - Chalk or string line - Claw hammer
Utility Knife or tin snips - Tape measure - Carpenter's square - Cutting bench or table

Handling

It is recommended that fixing and handling be carried out by two people. The material has resistance to damage but can be scratched if dragged across the ground. When removing boards from packaging, cut through full length of sleeve and lift board out.

Storage

Boards must be laid flat in original packaging (or otherwise covered) on bearers at 600mm centres and other materials must not be laid on top. Incorrect storage techniques can result in buckling or distortion.

Framing

All timber framing must be in accordance with the Australian Standard ASI 684. Studs to be at maximum 600mm centres. All framing must be checked to ensure a true and level surface for fixing. As a guide a deviation of 4mm measured from a 2.4 meter straight edge. A maximum moisture content of 18% is required prior to final straightening and application of the paper and Palliside.

Building Paper For New Framework

To meet regulations for insulating the Building Code of Australia, it may be necessary to install reflective building membranes such as reflective foil laminations or batts. This product should be tested under AS/NZS 4859.1 to make sure it provides the required r-value under the Building Code Of Australia. The membrane must be installed so as to form a wind barrier. It must be as tight as possible, well lapped especially at corners, and special care should be taken above and around all openings. All punctures or tears must be repaired. If in doubt contact the manufacturer of the building wrap for clarification.

Accessories

Installation Of Accessories

It is important to consider accessories before beginning installation. Accessories to be fixed in **BEFORE** fixing the boards and fitting joinery. Short vertical battens can also be used at the tops and bottoms of walls to provide fixing for trims (**Fig 2**). Secure accessory lengths at 300mm centres using the same fixing method as for the weatherboards.

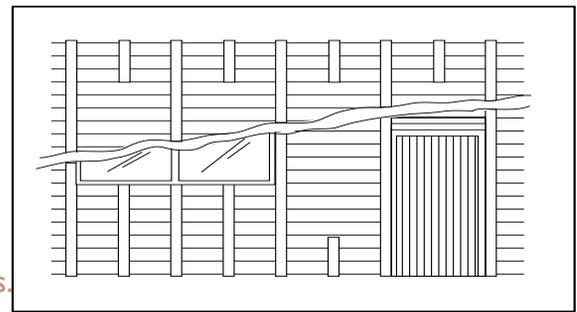


Fig 2

Starter Strip

The starter strip used to install Palliside starts at the bottom of the wall frame when using full boards. The starter strip should be left slightly short of base corner trims and joiners. Use a chalk line and level to ensure starter strips are straight (this is critical, otherwise all boards from this line will be crooked). Clip the bottom board into the starter strip, nail or screw home and fix subsequent planks (**Fig 3**). Leave a 5mm gap between lengths of trim to allow for thermal movement.

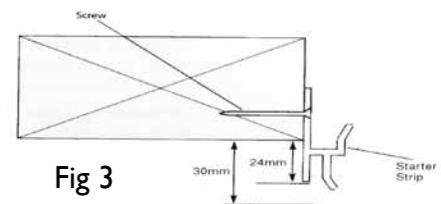


Fig 3

Joints

Joints along the length of a wall may be finished with a snap-fit flat soakers (joiners). Moulded to conform to the shape of the board; these can be used on or off stud. However, moulded soakers must be staggered if used between studs (**Fig 4**). It is advisable to carefully place a small dab of solvent cement on one side of the rear of the soaker. Ensure soakers are firmly pushed into place. Where boards are up against trims, allow 5mm minimum for thermal movement.

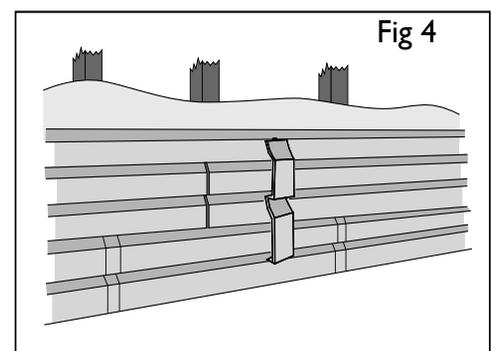


Fig 4

Alternatively, straight joints on stud are made using either a two-part flat joiner or two x two part channel trims back to back. For either option, the bases must be fixed before installation (**Fig 5**).

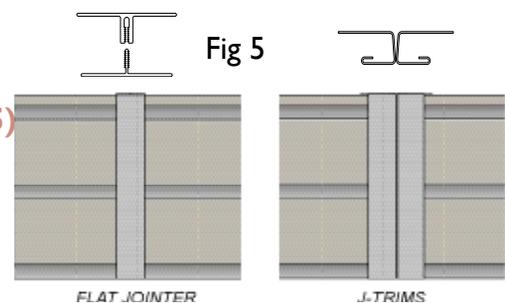


Fig 5

Two-part Channel Trim

The two-part channel trim is ideal for trimming tight fitting areas such as on gable ends or finishing under eavelines (**Fig 6**). The channel can also be used to provide a tidy end-capping, e.g. when butting boards against brick work. Used for these applications the base section is first fixed in place, then the board is face fixed and the cap fitted to conceal fixing heads.

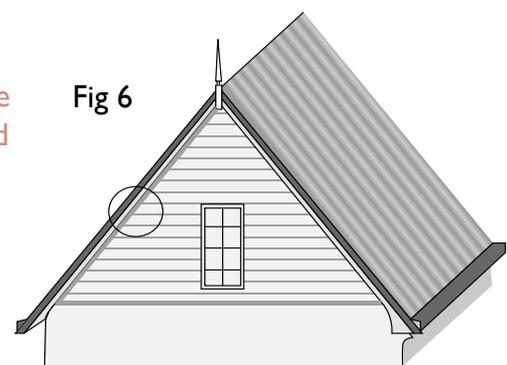
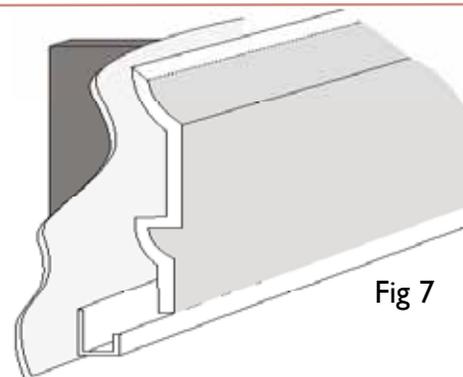


Fig 6

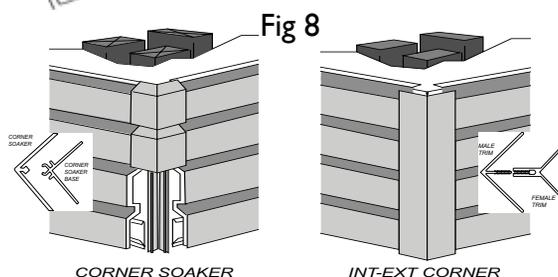
J-shaped Channel Trim

The j-shaped channel trim is an alternative to the two-part channel, and may be used around joinery and also as a starting option when beginning with a board (Fig 7). J-trim may also be used as a vertical trim option or when finishing to other weatherboards. The J-trim must be installed prior to installing the weatherboards.

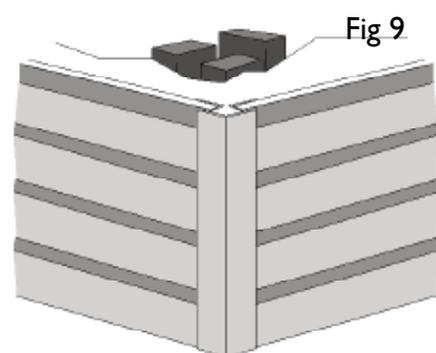


90° External Corners

External corners may be finished in three ways. For a finish which conforms to and blends with the shape of the boards, moulded corner soakers are available (Fig 8). Alternatively, boxed corners are created using the two-part internal-external corner. For either option, the appropriate base must be fixed into place before installation. When installing as an external trim, use the female trim as the base and the male as the cap. The internal-external corner has witness marks as a guide to prevent the board being buttoned too far.



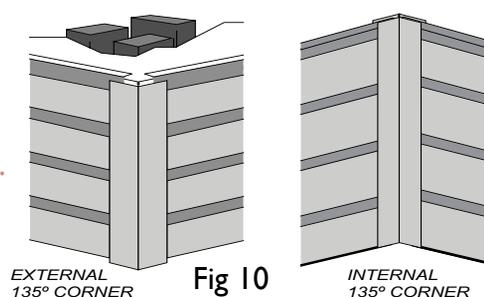
The outside corner post may also be used on external corners (Fig 9). This profile does not require a base to be installed prior to board installation, rather the board slips into the channel (Fig 9).



135° Corners For Bay Windows

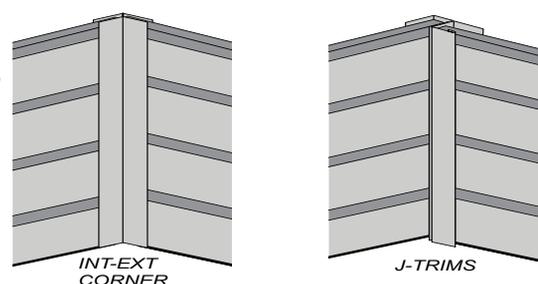
The 135° internal-external corner is used for 135° corners. When installing as an external trim, use the female trim as the base and the male as the cap, or vice versa for an internal trim (Fig 10). The appropriate base must be fixed in place before installation.

The outside corner post can also be used for 135° corners (Fig 9). Simply fix the trim in place before installing the board, stretching it around the corner. The board then tucks into the trim.
NOTE: Corner soakers cannot be used for 135° corners.



90° Internal Corners

For 90° internal corners, the 90° internal-external corner can be used as with external corners. When installing as an internal trim, use the male trim as the base and the female as the cap. Alternatively, internal corners can be accomplished using two J-trims butted against one another (Fig 11). For either option, the trims must be installed prior to installing the weatherboards.



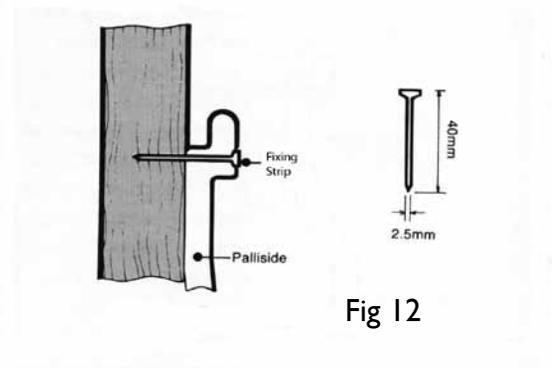
Installation

Make sure accessories have been considered and installed before beginning installation of Palliside weatherboards. When installing Palliside, make sure the supporting timber frame has studs spaced at a maximum of 600mm centres. In addition, do not put blast heaters directly up against Palliside as the direct heat may cause distortion. Outside lighting mounted to any weatherboard including Palliside must meet the appropriate wiring regulations, and bulb capacity must not exceed the manufacturer's specifications. Care should be taken that the temperature of the weatherboard does not exceed 55°C.

Screws

When using screws, Icon Plastics recommends using counter sunk head self tapper screws, galvanised or stainless steel, with a Philips head. The screw should be 40mm long, 8 gauge thick with a head size no bigger than 8mm.

Fix at every stud (max 600mm centres). Screw through the fixing groove on the Palliside board; the head must hold the board firmly but not be driven hard against the surface. To ensure boards remain flat, wither fix progressively from the centre outwards or from one end to another. For best results point screw slightly down.



Cutting

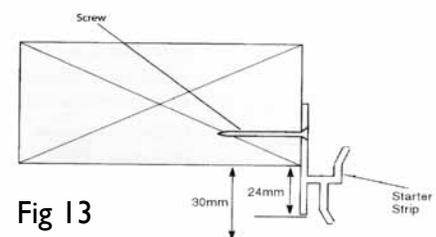
The cutting of boards is accomplished with standard tools. Don't force the saw, and follow standard safety practices.

When fitting boards around joinery either (a) score along the length of plank with utility knife and cut down to the score line using a saw, then snap the section out by hand, or (b) mark and cut out with an electric saw. Allow 5mm for thermal movement on either side of the opening.

Fixing Palliside Weatherboards

To install Palliside weatherboards, clip the bottom board into the starter strip, (which has already been fixed) fix to the wall using top fixing groove (**Fig 12**) and fix subsequent planks (**Fig 13**). Leave a 5mm gap between boards when joining for thermal movement.

By pushing the boards home the weatherboards should remain level. It is important however to check the level from time to time using a spirit level. To further check if the board is level, if using the moulded corner soakers, snap these in place at the end of each run of boards.



The Boards interlocking system is designed to be tight to protect from dust and water. If difficulty is experienced interlocking the boards, lay a timber off cut along the upper edge of the board and gently tap home with a hammer.

Do not hit directly down on top of the board. If the top of the board should be damaged slightly in handling or fixing, it will not affect the overall integrity of the system - due to the anti-capillary groove which acts as a secondary barrier against rainwater. Capillary action draws moisture because of the surface tension between abutting surfaces. The gap provides a break to the tension and moisture cannot progress further (**Fig 14**).

Below Joinery

under windows: Hold the board up to the window and mark the width and depth to be cut out. Pack out where required with timber packers and face fix so that heads will be hidden by the joinery.

Above Joinery

Use a standard aluminium flashing.

Weather Sealing

Ensure the weatherboard is fully weather tight. Particular care is required around openings. Seal trims around openings with the solvent cement so water cannot channel behind the weatherboards. Weather sealing can be achieved by way of:

- Standard Aluminium Flashing
- Silicone sealants, however care should be used with sealants as excess can attract dirt.
- J-trim
- Two-Part channel

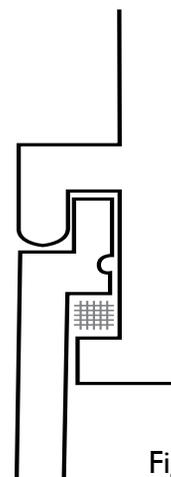


Fig 14

Finishing

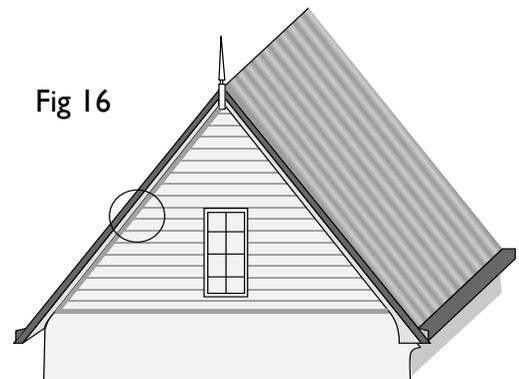
Once installation of the weatherboards is completed, joiners can be pushed into place. If using moulded soakers, place a dab of solvent cement on one side of the rear of the soaker. Ensure soakers are firmly pushed into place.

Gable Ends

For gable ends, use the two-part channel as described in the accessories section (**Fig 16**).

Replacing Old Weatherboards

Palliside is ideal for re-clad projects. When re-cladding, it may be appropriate to remove all existing weatherboards and take the opportunity to insulate. Cladding is then undertaken as for the construction of new homes.



The following procedures must be followed if re-cladding over existing materials.

- Check existing weatherboards for deterioration and repair as necessary.
- Prime any timber surfaces that have been exposed during preparation.
- Remove downpipes and any surface protrusions.
- Check that walls are even; if not timber battens may be required. These will also be required where re-cladding over bevel backed weatherboards. Use 50 x 25mm treated timber arranged vertically at max 600mm centres, over existing studs. Use 100 x 3.75mm hot dipped galvanised nails at 600mm centres, nailing through the battens the existing weatherboards and into the framing behind.
- In all cases particular care must be taken where finishing around existing joinery to ensure a weatherproof finish.

Vertical Installation

Do not use this practice or around joinery or any opening.



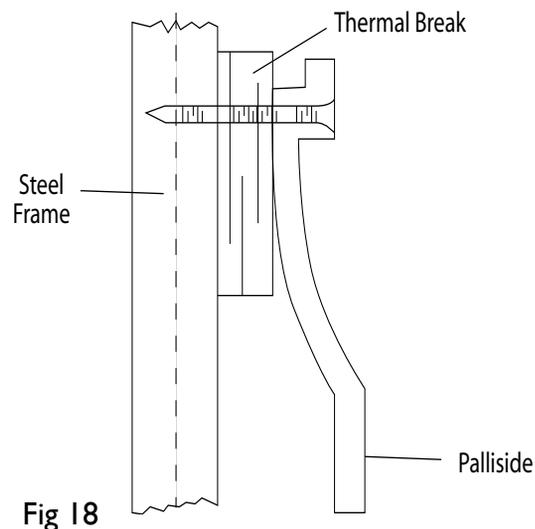
Fig 17

Diagonal Installation

Do not use this practice or around joinery or any opening.

Steel Framing

There are two methods of fixing that may be employed when using steel framing, depending on the bracing element used on the framing (**Fig 18**).



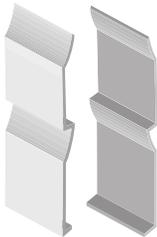
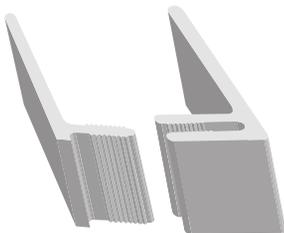
Where ply is used, Palliside may be fixed directly to the ply with 40 mm long counter sunk head self tappers screws, as specified on Page 4 of this Installation Guide.

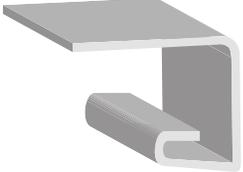
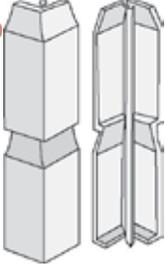
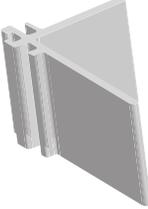
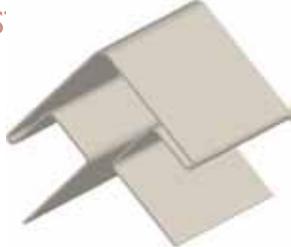
NOTE: Fixing centres should be reduced to 300mm in main body wall and 150mm at external corners.

Where fixing directly to metal framing (in conjunction with Building Papers), fixing centres must not be greater than 600mm. Use screws as specified on page 4, in conjunction with a thermal break as specified by the steel frame supplier.

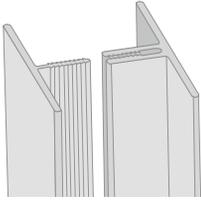
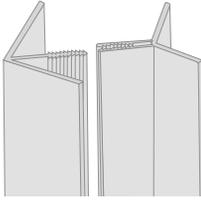
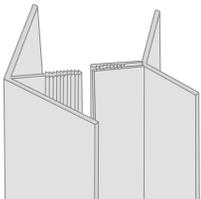
Accessory Dimensions & Quantifying Guide

As a guide, allow one 5kg box of screws for every 120 weatherboards.

DESCRIPTION	COLOUR	PRODUCT CODE	QUANTIFYING	NOTES
PALLISIDE BOARD 5840mm 7.29kg per length 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	IFCEMB5.84 IFCEMBCR5.84 IFCEMBGR5.84 IFCEMBIV5.84 IFCEMHR5.84 IFCEMPR5.84	Calculate the total wall area (m ²), rounding up to the nearest whole number of 260mm courses on board. Then, subtract total area (m ²) of windows and doors. Divide this figure by 2.08 to give boards required. Add a minimum of 10% wastage allowance.	
STARTER STRIP 3600MM 	White	IMSVS3.6	Calculate base length where a full width board will be used to start, subtracting total width of door openings. Divide this by 3.6 to give the number of required lengths.	
MOULDED FLAT SOAKER 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	IMVSF IMVSFCR IMVSFGN IMVSFIV IMVSFHR IMVSFPR	Allow one flat soaker (joiner) per join on each wall longer than 8m boards.	
TWO-PART CHANNEL TRIM 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	PWACT3.0 PWACTCR3.0 PWACTGN3.0 PWACTIV3.0 PWACTHR3.0 PWACTPR3.0	Calculate the length/height of any areas where the two-part channel will be used, e.g. gable ends, doors & windows. Divide the total by 2.6 to give lengths required.	

DESCRIPTION	COLOUR	PRODUCT CODE	QUANTIFYING	NOTES
J-TRIM 20MM 5000MM 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	161017-310-5000 161017-324-5000 161017-810-5000 161017-433-5000 161017-400-5000 161017-330-5000	Calculate the length/height of any areas where the J-trim will be used, e.g. over cut boards or as a vertical trim. Divide the total by 5 to give the number of lengths required.	
MOULDED SOAKER CORNER 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	IMVSC IMVSCCR IMVSCGN IMVSCIV IMVSCHR IMVSCPR	Take the total height of external 90o corners as calculated for the corner soaker base and divide by 0.260 to give the total number of soakers required.	
MOULDED CORNER SOAKER BASE 2700MM 	White	IMVCB2.7	Calculate the total height of external 90o corners and divide by 2.7 to give the total number of lengths required	
SOLVENT CEMENT 180G 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	IMCSI80 IMCSI80CR IMCSI80GN IMCSI80IV IMCSI80HR IMCSI80PR	As a guide, allow one tube of Solvent Cement for every 250 End Plugs or 50 Moulded Flat Soakers.	
OUTSIDE CORNER POS' 	White Vanilla Cream Glade Green Ivory Heritage Gold	161010-300-3600 161010-324-3600 161010-800-3600 161010-433-3600 161010-400-3600	Select the nessasry length requiered for each corner that requiers this option. For corners higher than 3m a combination of the 2 lengths should be selected	

Accessory Dimensions cont'd

DESCRIPTION	COLOUR	PRODUCT CODE	QUANTIFYING	NOTES
FLAT JOINER 3000MM 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	PWAFJ3.0 PWAFJCR3.0 PWAFJGN3.0 PWAFJIV3.0 PWAFJHR3.0 PWAFJPR3.0	Select the necessary length required for each straight line join. Divide the total by 2.7 to give length's required.	
90° INTERNAL - EXTERNAL CORNER 3000MM 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	PWA90IE3.0 PWA90IECR3.0 PWA90IEGN3.0 PWA90IEIV3.0 PWA90IEHR3.0 PWA90IEPR3.0	Calculate the height of any 90o internal or external corner that require this option. Divide the total by 2.7 to give lengths required.	
135° INTERNAL - EXTERNAL CORNER 3000MM 	White Vanilla Cream Glade Green Ivory Heritage Gold Primrose	PWA135IE3.0 PWA135IECR3.0 PWA135IEGN3.0 PWA135IEIV3.0 PWA135IEHR3.0 PWA135IEPR3.0	Calculate the height of any 90o internal or external corner that requires this option. Divide the total by 2.7 to give lengths required.	

Technical Specifications

Palliside weatherboards are manufactured to meet the standards of AS/NZS 4256.4. The Palliside weatherboard system comprises extruded foamed uPVC board with co-extruded ultraviolet protection uPVC exterior layer. The accessory trims are extruded or moulded in impact-modified uPVC

Fire Properties

Used properly, uPVC presents no greater risk than other natural or synthetic organic materials. Palliside has been designated as suitable for domestic and commercial use in areas where there are no specific fire requirements. The product is not easily ignited and shrinks, melts and flows away from the heat source. uPVC is self-extinguishing and ceases to burn upon removal of the heat source.

Thermal Expansion & Insulation

In terms of thermal properties, the recommendations (5mm per 5.84m length) for fixing Palliside allow for the terms expansion of $3 \times 10^{-5}/^{\circ}\text{C}$, which takes place primarily in the length of plank. Boards must not be cut to a tight fit between accessories. The light colour of the board reflects solar heat, keeps the surface temperature of the weatherboards low and thus minimises expansion. Palliside has a thermal resistance of $0.26\text{m}^2\text{C}/\text{W}$.

Wind Loading

Palliside weatherboards satisfy the test criteria for house in terrain category 3 in tropical cyclone region c, as defined in the Wind Loading Code AS1170.2. In accordance with AS1170.2, Palliside may be used as an exterior weatherboard on all purpose groups up to 6 meters in height.

Acoustic Performance

In terms of acoustic performance, Palliside has a nominal STC value of 21 on its own, or 36 when used with building paper, framing and 75mm insulation. This results in a loss of 24dBa.

Pallside Maintenance

Colour Fastness

There will be a slight fading over time with Pallside when exposed to ultraviolet radiation, as with most coloured surfaces incorporating pigments. Any chalking can be removed by washing the surface. Any colour change will not affect the performance of the Pallside weatherboards.

Cleaning

Pallside boards will not rot or corrode; they are impervious to moisture and from attack by termites or vermin. Pallside boards need a minimum of maintenance. Surface marks can be removed with a wet cloth and warm, soapy water or propriety non-abrasive bath cleaner. Remove graffiti using a non-abrasive cleaner such as Jiff. However, some dulling of the surface may result. **NOTE:** thinners, petrol or solvents must not be used.

Painting

If require, pallside boards can be painted. Do not use dark colours due to the subsequent increase in expansion and contraction this would cause. To prepare the surface, wipe down with detergent and water and thoroughly wash. (this removes and filmy residue from the extrusion process which can prevent the paint from adhering). Apply two coats of the desired colour using 100% acrylic paint.



Palliside Customer Guarantee

Product Information

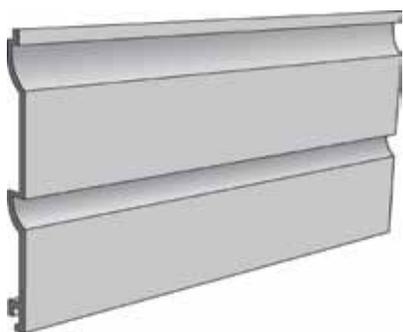
Palliside is suitable as an exterior/interior weatherboard for horizontal and vertical applications. If Palliside is to be used in any applications not covered by the current Icon Plastics brochure, written confirmation of suitability should be obtained from Icon Plastics.

Over time there will be fading and chalking of colours as is customary with all exterior pigmented finishes. This will not affect the long term durability and weather protection of Palliside. Chalking can be removed by periodic washing with warm soapy water.

Guarantee

Subject to the above product information, if Palliside is used and installed accordingly to Icon Plastics' published recommendations, Icon Plastics guarantees the manufactured Palliside Weatherboards System against failure caused by faulty manufacture and workmanship for a period of twenty five (25) years from date of manufacture. If you consider that this guarantee has not been fulfilled, do not attempt repairs or replacement, but contact the Product Manager, at Icon Plastics, 925 Nudgee Rd, Nudgee QLD 4014 on (07) 3267 8555 with evidence of the product purchase date. Icon Plastics will then institute timely inspection of the installation. If Palliside has been used and installed in accordance with the requirements of the guarantee (set out above) but does not comply with that guarantee, we will replace the product or refund its purchase price.

Pallside Board Profile



Rusticated Woodgrain
Interlocking boards

Width: 285mm
Length: 5840mm
Thickness: 6mm

Effective Cover: 260mm
(25mm overlap)

White

Vanilla Cream

Ivory

Glade Green

Heritage Gold

Benefits Of Using Pallside Weatherboards

260mm wide effective cover (nominal Double profile saves time on fixing
6mm thick for strength, thermal and acoustic insulation and impact resistance
Foam construction minimises the amount of expansion and contraction
Hidden nailing or screwing can be completed without pre-drilling, through fixing strip
unique co-extruded surfaces provides UV protection plus scratch and impact
resistance

Technical Specifications

MATERIAL:

Weatherboards - extruded foamed uPVC with co-extruded UV
protection uPVC exterior layer
Accessory trims - extruded or moulded in impact-modified uPVC

FIRE INDICES:AS 1530.3

IGNITABILITY	0
SPREAD OF FLAME	0
HEAT EVOLVED	0
SMOKE DEVELOPED	8

AS 3837:1998

Group Number: Group 3
Average Specific Extinction Area: 764.8m²/kg

THERMAL EXPANSION:

3 X 10.5°

THERMAL INSULATION:

0.26m²°C/W

STRENGTH PROPERTIES of uPVC: Impact: Tested in accordance with AS 2921 Appendix B.

WIND LOADING:

Can be used in tropical cyclone region C or terrain
category 3 as defined in the Wind Loading Code AS1170.2

ACOUSTIC PERFORMANCE:

Noise reduction of up to 24dBa



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