

V-Lite Foamed PVC Panels

trade essentials®





Trade Essentials V-Lite Foamed PVC Panels are versatile light weight panels that have many applications, such as alfresco kitchen carcasses, locker carcasses and displays.

V-Lite Foamed PVC Panels are light and strong. They are water resistant and resistant to most cleaning products, making them ideal for applications where hose cleaning is required.

V-Lite Foamed PVC Panels are an expanded PVC thermoplastic sheet which, due to its closed cell structure can be converted into component parts by all conventional fabrication methods and techniques, including vacuum and pressure forming, machining, gluing and plastic welding.

V-Lite Foamed PVC Panels



Properties

- ▶ Water Resistant
- ▶ Lightweight
- ▶ Self-extinguishing
- ▶ Easily Fabricated
- ▶ Resistant to acids and alkaline based cleaning solutions
- ▶ High quality
- ▶ Mildew proof

Applications

- ▶ Alfresco kitchen carcasses
- ▶ Locker carcasses
- ▶ Exhibition display units
- ▶ Point of Sale Displays

Trade Essentials V-Lite Foamed PVC Panels are suitable for use as internal carcasses in both cabinetry and alfresco kitchens.

V-Lite PVC Foamed Panels **cannot** be used for structural applications, including exterior wall cladding, building facades, balustrades, shelving, doors, railings or swimming pool surrounds. V-Lite Foamed PVC Panels must **not** be used as a fireplace or BBQ surround as it is a **combustible** material. As with most surfaces exposed to outdoor conditions over prolonged time, some change in colour and appearance of the surface may occur. V-Lite Foamed PVC Panels are **not** suitable for prolonged direct exposure to UV light. A copy of the V-Lite Foamed PVC Panels Technical Datasheet is available from Laminex or visit tradeessentials.thelaminexgroup.com.au.

Fabrication Guide

Sawing	Machining	Thermoforming	Drilling	Bonding	Welding
For both band and circular saws use blades with 8 to 10 teeth per inch. Prevent overheating by feeding slowly.	Use low machining speeds for turning and shaping, and assure free removal of machining chips.	Thermoforming of PVC is best between 90°C and 130°C. Between these temperatures sheets become formable. Dimension and colour changes may occur.	Use conventional drills, but be certain to remove free drill chips in order to avoid overheating of the sheet. Also, use slow rate of plunge.	Sheets can be bonded with conventional solvent based PVC adhesives and solvent based contact adhesives.	Sheets can be welded by hot air welding processes conventionally used for PVC.

Mechanical Fixing

Selecting Screw Type

Quality parallel threaded screws are recommended for Trade Essentials V-Lite Foamed PVC Panels.

Selecting Screw Length

The length of the screw directly affects the holding power of the screws, for example, a 25mm screw has twice the holding power as a 13mm screw. This is most important when screwing into the edge of V-Lite Foamed PVC Panels.

Selecting Screw Diameter

To avoid splitting the panel when screwing into the edge, the screw diameter should not exceed 20% of the panel thickness. For example, the maximum screw diameter for 16mm board is 6 gauge.

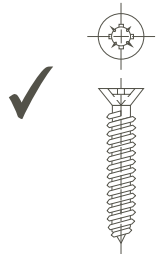
Pilot Holes

Correct pilot holes are essential to avoid splitting. The pilot holes should be approximately 80% of the screw core diameter and a minimum of 2mm beyond the screw penetration depth. Do not over tighten screws, as further turning after the screw is tight will reduce holding power.

Screw Location

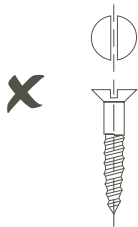
Screws should be carefully positioned to prevent panel deformation and breakout - no closer than 25mm to a corner and no closer than 12mm to the edge. When a long line of screws has to be used, it is a good idea to stagger the screws to prevent splitting the substrate being screwed to. When screwing into the edge, never place a screw closer than 75mm from the end of the panel.

Countersunk - Recessed Head
Parallel Shank

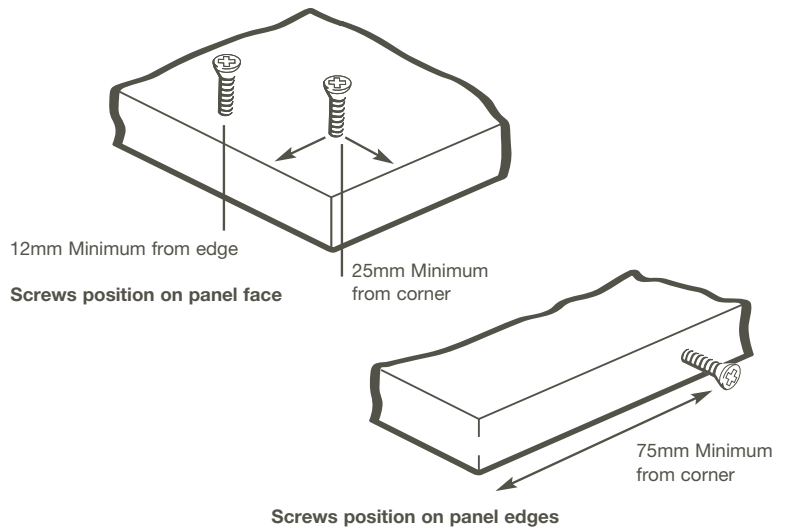


(recommended screw type)

Countersunk - Slotted Head
Traditional Wood Screw



(not recommended)



Decoration Guide

Edging

V-Lite is suitable for hot melt edge banding.

Painting

V-Lite can be successfully painted with a water based acrylic paint. Beware of the surface hardness of the PVC as paint may be damaged from impact to the surface. Note that PU or other solvent based paints are not recommended.

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Installation

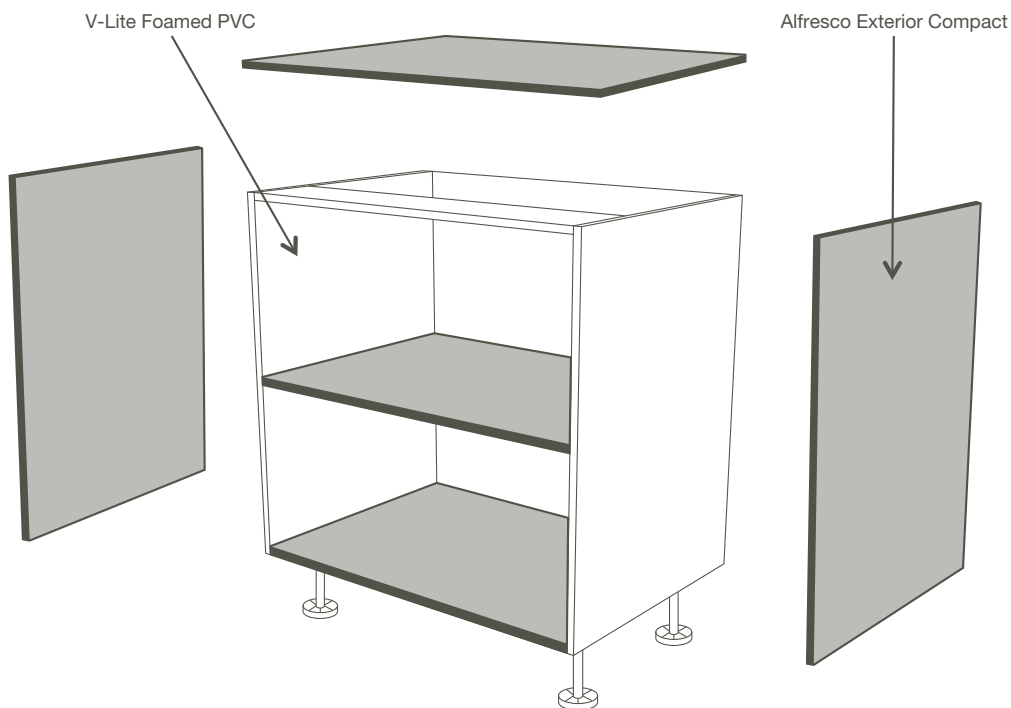
When installing Trade Essentials V-Lite Foamed PVC Panels in the vicinity of gas burners or gas barbecues, ensure that minimum clearances are maintained between the gas appliance and Trade Essentials V-Lite Foamed PVC Panels in accordance with AS/NZS 5601:2010 Gas Installation Code. For clearance requirements around a gas or electrical cooking appliance and a combustible surface, always adhere to the appliance manufacturer's installation requirements as certified under AS 4557. *Further installation details are available in the Trade Essentials V-Lite Foamed PVC Panels Technical Datasheet.

Warning: Trade Essentials V-Lite Foamed PVC Panels will deform when exposed to temperatures above 70°C and or prolonged static loads. Trade Essentials V-Lite Foamed PVC Panels are not suitable to be used as unsupported shelves or as doors.

Shelf Loading

Trade Essentials V-Lite Foamed PVC Panels are NOT recommended for construction of unsupported shelving as the PVC is susceptible to creep.

Carcass Construction Guide



The combination of V-Lite Foamed PVC panels and Alfresco Compact provides a durable solution for carcass construction that complies with AS/NZS 4387, when suitable quality fasteners and hardware are utilised.

Component	Material	Thickness
Carcass Sides	V-Lite Foamed PVC	16mm & 18mm
Carcass Back	V-lite Foamed PVC	16mm & 18mm
Carcass Top Rail	V-Lite Foamed PVC	16mm & 18mm
End Panels	Compact	13mm
Work Top	Compact	13mm
Shelves	Compact	13mm
Doors	Compact	13mm

Comparison with Particleboard

PVC Sheet comparison to MR E1 Whiteboard PB.

Test	Method	Result	PVC	PB	
Thickness	AS/NZS 4266.35: 2004	± 0.3 mm	16	16	
Moisture	AS/NZS 4266.3: 2004	N/A	0.5	8 to 10	
Density	AS/NZS 4266.4: 2004	N/A	540	650	
MoE	AS/NZS 4266.5: 2004	N/A	1230	2800	
MoR		Min 12 MPa	17.7	17	
Internal Bond	AS/NZS 4266.6: 2004	Min 0.3 MPa	1.57	0.75	
Surface Soundness	AS/NZS 4266.7: 2004	Min 0.9 MPa	> 2.1	1.7	
24 Hour Thickness Swell	AS/NZS 4266.8: 2004	Max 15 %	0.0	< 7	
Wet Bending Strength	AS/NZS 4266.10: 2004	Min 4.5 MPa	17.63	4.5	
Screwholding	Edge	N/A	755	900	
	Face	N/A	479	700	
Formaldehyde Emission	AS/NZS 4266.16: 2004	Max 1.5 mg/L	0.04	0.9 to 1.2	
Porosity	AS/NZS 4266.22: 2004	Max rating 3	2	2	
Resistance to Cracking	AS/NZS 4266.24: 2004	No Visible or Microcracks	No Cracks	No Cracks	
Resistance to Staining	Beetroot	AS/NZS 4266.25: 2004	2	1	
	Coffee		2	1	
	Tomato Sauce		Max Rating 2	1	1
	Marking pen		4	2	
	Shoe polish		2	2	
Resistance to Dry Heat	AS/NZS 2924.2 Part 8	Min Rating 4	2	4	
Resistance to Scratching	AS/NZS 2924.2 Part 14	Min 2.0 Newton	0.3	8	
Resistance To Steam	AS/NZS 2924.2 Part 23	Min Rating 4	3	4	

General Board Weight

Unit	Kg/m ²
16mm	9.0

Fire Hazard Indices

Indices	Result	Range
Ignitability	13	0-20
Spread of Flame	0	0-10
Heat Evolved	3	0-10
Smoke Developed	8	0-10

ASW Codes

ASW code	Colour	Sheet Size	Thickness
973953	White	2440x1220mm	12mm
958385	White	2440x1220mm	16mm
972988	White	2440x1220mm	18mm
972989	White	3600x1560mm	16mm

Interpretation of Ratings

The rating definition for both Porosity & Resistance to Stain:

- Rating 1 Complete removal of staining agent from surface
- Rating 2 Faint Stain left on surface
- Rating 3 Slight stain left on the surface
- Rating 4 Only partial removal of stain
- Rating 5 No removal of stain

The rating definition for Resistance to Dry Heat and Resistance to Steam:

- Rating 5 No visible change
- Rating 4 Slight change of gloss and/or colour. Only visible at certain viewing angles
- Rating 3 Moderate changes of gloss and/or colour
- Rating 2 Marked change of gloss and/or colour
- Rating 1 Surface damage/distortion and/or blistering

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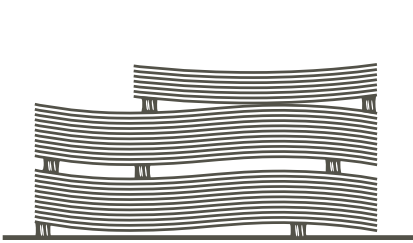
Storage of V-Lite Foamed PVC Panels

The following recommendations should be applied to maintain V-Lite Foamed PVC Panels in good order and condition. The storage area should be protected from the sun, rain and wind. Open sided sheds would not be regarded as dry stores.

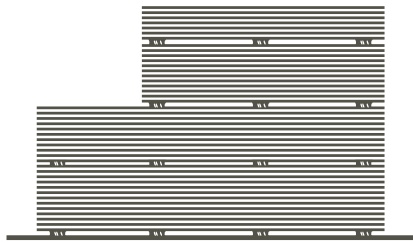
All packs should be evenly supported at each end at intervals of not more than 750mm where the packs are multiple stacked, and no further than 150mm from the edge of boards.

All supports should be vertically aligned.

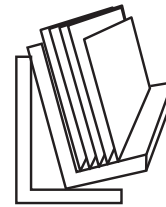
Keep work area clean. Avoid contact with abrasive surfaces or grit.



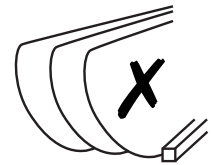
Incorrect storage method



Correct storage method



Correct



Wrong

For vertical storage the sheets should be placed on their sides, exactly vertical and be supported over the full height.

Pre-conditioning

Trade Essentials V-Lite Foamed PVC Panels do not require pre-conditioning to balance moisture levels.

Safety and Handling

Trade Essentials V-Lite Foamed PVC Panels are produced with an inert PVC resin. Machine tools should be fitted with dust extractors and the wearing of a dust mask and eye protection is recommended. Material Safety Data Sheets for Trade Essentials V-Lite Foamed PVC Panels are available on request from any Laminex branch.

Avoid inhalation of fumes and dust that can be generated by fabrication of Trade Essentials V-Lite Foamed PVC Panels.



Available in the Trade Essentials range:

Adhesives
Craftwood (MDF Products)
Fire Retardant Products
Lightweight PVC Panel Products
Particleboard Products
Plywood Products
Strandboard Products
Triboard Products
Ultra LDF Products
White Board and Edging Products

V-Lite Foamed PVC Panels are part of the Trade Essentials® range of products

For more information visit tradeessentials.thelaminexgroup.com.au or call 132 136.

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