



Laminex™ Acrylic Panel

Laminex™ Acrylic Panel Technical Data Sheet

Laminex™ Acrylic Panel is a durable soft touch super smooth surface bonded to Lakepine medium density fibreboard (MDF MRE0) to provide a double faced, pre-finished decorative panel.

Laminex™ Acrylic Panel is available in a range of 9 matte colours, with matching Laser and ABS edgetape. The sheets will arrive with a protective film.

Composition

Laminex™ Acrylic Panel panels are manufactured on a durable MRE0 (Moisture Resistant Zero Emission) Medium Density Fibreboard substrate providing an ideal platform for a matte decorative finish.

The decorative surface comprises of a 0.8mm acrylic laminate sheet which provides a full depth of colour to the finished panel.

Uses

- Vertical Interior use
- Kitchen, bathroom and laundry cabinets
- Furniture – commercial and residential
- Wall units
- Bar fronts
- Shop fittings and displays
- Wall linings in dry areas

For uses other than those specified in this section, and for use in the construction industry, please contact Laminex New Zealand™ on 0800 303 606.

Specifying

When specifying Laminex™ Acrylic Panel include the following information:

Product Characteristics	
Colour	White Linen, Meringue, Pitch Black, Sky Scraper, Metallic Dune, Metallic Coal, Haze, Jute, Cinder
Finish	Soft Touch Matte. Faced two sides
Sheet size	2800 x 1220mm
Thickness	18mm & 26mm (nominal)
Substrate	Lakepine MRE0
Matching Edgetape	All 9 colours are available in 22 x 1.2mm & 31 x 1.2mm Laser ABS 22 x 1mm & 31 x 1mm ABS edging

Design Considerations

Choosing colours

Laminex™ Acrylic Panel is no different from any other material in that darker colours will always show scratches and superficial wear and tear more readily than lighter colours.

Avoid installing panels in close proximity to windows as exposure to extended periods of direct sunlight can impair the integrity of the acrylic particularly in dark colours that absorb heat more readily.

The use of door straighteners should be considered for larger doors to prevent bowing.

Note: Any exposed substrate must be sealed before service

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Batch matching

We recommend ordering all panels for one job together to avoid any slight colour variances that may occur between production runs.

Directional metallic colours

As a result of the manufacturing process, the metallic flakes in all metallic colours have a directional orientation along the length of the sheet. This means that sheets will reflect light in a different way depending on their orientation. All metallic colours have a directional label on the sheet to indicate this direction. It is important that as each panel is cut from the sheet, the direction is recorded on each individual component.

This will make it easier to keep the appearance of all panels consistent when they are installed on the project.

Visible defects

Laminex™ Acrylic Panel is produced to very high quality standards. Some very minor visual defects < 1.0mm in size are allowed, a maximum of one defect per side. These defects are identified on the panel, which will allow the defects to be placed in a place where they will not be visible, (such as on the inside face of a cupboard door) or for the defect to be cut around.

Effects of heat

Precautions must be taken to ensure the Laminex™ Acrylic Panel is kept clear of heat sources, such as freestanding fire places and space heaters, wall ovens and hot plates etc. The structural life of the substrate may be impaired if temperatures exceed 50°C for prolonged periods. Laminex™ Acrylic Panel can withstand short term exposure to temperatures of 65°C above ambient temperature without fear of ignition.

Manufacturers of heat appliances, referenced above must be consulted to ensure that correct clearances and ventilation are provided for.

Performance Data

Properties	Test method	Test results
Resistance to wear	Taber Abraser ISO 4586-2 (6) Din 53799(4.66) AS/NZS 4266.20	8 colours > 250 cycles
Resistance to scratching	AS/NZS 2924.2 Part 14 EN 438-2 Part 25 Dur-o-test	3.5N Rating 3 17N
Resistance to staining	Liquid Agents for 16 hours ISO 4586 (15) DIN 53799 (4.14.2) AS/NZS 4266.25	No visible marks
Resistance to cracks	70°C oven for 24 hours ISO 4586.2 (24) DIN 53799 (4.7.3) AS/NZS 4266.24	No cracks
Resistance to steam	Steam for 30 mins ISO 4586.2 (24) DIN 53799 (4.11.2) AS/NZS 4266.23	No effect
Resistance to UV	Exposure to Xenon Arc UV Light for 306 kJ/m2 AS/NZS 2924.2 Part 16	Pass

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Limitations

- Laminex™ Acrylic Panel is not intended for use in an exterior situation.
- Do not use Laminex™ Acrylic Panel in constant wear situations such as sink benchtops, high use shop counters, bar tops or restaurant tables.
- Laminex™ Acrylic Panel must not be used in high humidity or wet areas such as saunas or showers.
- The Laminex™ Acrylic Panel substrate must not come in contact with any liquid. Failure to keep dry will affect the performance of the panel.
- Health and Safety Precautions (Refer Health and Safety section of the document).

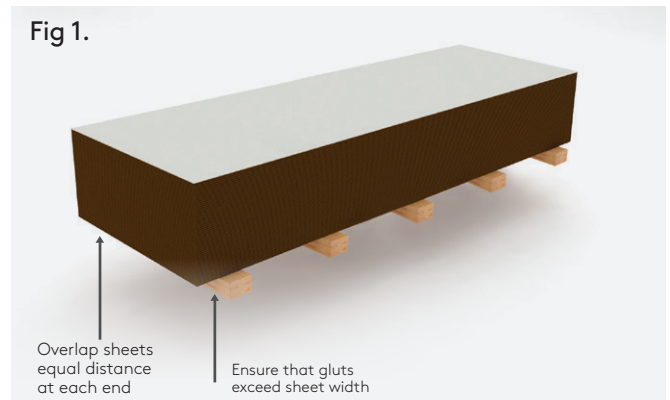
Storage and handling

- Laminex™ Acrylic Panel is a high quality product and must be handled accordingly.
- Care of the panel is essential to protect the surface.
- To avoid damage to the sheets, lift rather than drag or slide panels over each other or across sharp or gritty surfaces.
- Leave protective film on panels intact, until installed and ready for use.

- Laminex™ Acrylic Panel must be stored away from moisture, heat and sunlight.
- Sheets must be flat stacked on aligned bearers or gluts.
- Bearers or gluts must be of uniform thickness and must extend across the full width of the stack. See Fig 1.
- 2800 sheets require 5 bearers for adequate support.

Laminex™ Acrylic Panel must be protected from the weather, dampness and direct wetting and must be stored inside.

Fig 1.



Durability

When stored, handled, used and maintained in accordance with this document, Laminex™ Acrylic Panel will meet the durability requirements of NZBC B2.3.1(c) for 5 years. Laminex New Zealand™ have established a 10 year warranty for Laminex™ Acrylic Panel.

Laminex New Zealand™ will not be liable to any person for any product failure if the conditions as to storage, handling, use and maintenance of Laminex™ Acrylic Panel as outlined within this document are not complied with.

Dimensions		
Thickness (mm)	18mm	26mm
Weight (kgs/m ²)	13.7	20.27
Sheet tolerances (mm)		
Length and width	+/- 2.00	+/- 2.00
	+ 0.30/-	+ 0.30/-
Thickness	0.00	0.00
Squareness (maximum difference between diagonals)	2.00	2.00
Straightness (maximum deviation in plane along the edge)	1.50 per metre	1.50 per metre

Working Recommendation

Machining

To obtain the best results when machining Laminex™ Acrylic Panel, avoid excessive speed rates.

Guidelines for Cutting Laminex™ Acrylic Panel				
Saw diameter (mm)	250	300	350	400
Saw RPM	4600	3800	3300	2900
# of teeth	80	96	108	120
Rim speed (m/sec)	47	56	66	75
Max feed rate (m/min)	7	8	9	10

These are guidelines taken from various tooling manufacturers. Machines fitted with a scribing saw or hollow ground saw blade will produce the best result directly from the sawing equipment. This will

eliminate further work prior to edge finishing. Please consult with your tooling supplier to ensure safe operating speeds and the right style of blade is used for your equipment at the material being used.

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Panel Cutting		
Cutter Type	12mm Spiral Cutter	4mm Spiral Cutter
Cutter Speed	23000	18000
Max feed rate (m/min)	20	10

Panel Boring			
Cutter Type	20mm Forstner bit	8mm Brad Point	5mm Brad Point
Cutter Speed	4000	4000	4000
Max feed rate (m/min)	1.5	4	4

Fastening

Selected screws

Always use screws specifically designed for use with medium density fibreboard e.g. Twinfast-screws or Super-screws. Drill a pilot hole slightly beyond the full depth of the screw penetration. Do not over-tighten screws. A drop of adhesive applied to the screw thread will increase holding power.

Face Screwing

To avoid surface lifting, screws must not penetrate more than two thirds of panel thickness, e.g. 18mm panel = 13.5mm maximum penetration.

Pilot Hole Diameters for Lakepine MDF									
Screw gauge	3	4	5	6	7	8	9	10	
Pilot hole diameter in mm	1	2	2.4	2.6	2.7	3.0	3.3	3.5	

Edge Finishing

It is recommended that all edges of panels be edge finished. The most common Laminex™ Acrylic Panel edging options are:

Laminex™ Acrylic Panel ABS Edge Tape

Laminex™ Acrylic Panel Laser Edge Tape

A co-extruded edge tape, applied using a highly efficient laser or hot air edgebander that melts a colour-matched functional layer on the reverse side of the edge tape and welds it to the decorated board.

Minimal visible glue line once applied to board giving a clean seamless look.

Permanent and almost invisible functional bond to the board gives improved heat and water resistance when compared to conventional edge tape technology

Care must be taken when applying around tight curves.

Care And Cleaning

Regular cleaning requires only a wipe down with warm soapy water, follow up with dry cloth.

Common household detergents can be used in conjunction with the instructions provided. A soft cloth should always be used. Do not use scouring pads or abrasive cloths or cleaners (e.g. steel wool) as these can damage the surface. Cleaning solutions are to be immediately rinsed from the surface by wiping with water.

NEVER USE ANY OF THE FOLLOWING ON LAMINEX™ ACRYLIC PANEL FOR ANY REASON:

Abrasive cleaners, such as:

- Jif®
- Ajax®
- Chemico®
- Brasso®
- Mr Muscle® cleaner
- Vim®
- Neat Janola®
- Wire wool
- Scourer pads
- Sand paper
- Oven cleaner
- Silvo®
- Acetone

The following must not be used:

Strong acid/Alkali solutions include but not limited to: caustic soda/oven cleaner/NaOH, hydrochloric acid, sulphuric acid.

Abrasive materials include but not limited to: abrasive creams (Jiff, brasso, toothpaste), scouring pads (even if marked non abrasive), steelwool/goldilocks, hog/hard nylon bristled brushes, sand paper.

Concentrated solvents include but not limited to: Methyl ethyl ketone/MEK, cleaning solvents at greater than 10% concentration (e.g. meths, turpentine, kerosene).

The removal of dust from the surface can be easily achieved with the use of an electrostatic dusting cloth.

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Fire Performance

Laminex™ Acrylic Panel is categorised to DIN 4102-B2 as normal flame resistance. In case of fire, no toxic substances such as heavy metals or halogens are released. The same fire fighting techniques can be used as for construction materials containing wood.

Health and Safety

Health and Safety precautions must be taken when working with wood panel products.

Exposure to wood dust and/or formaldehyde may cause irritation to the eyes, respiratory system and skin, and may cause sensitisation resulting in asthma and/or in dermatitis.

Wood dust is classified as a known carcinogen. Repeated inhalation of wood dust over many years may cause cancer. Formaldehyde has been evaluated by the International Agency for Research on Cancer (IARC) as a group 1, carcinogenic to humans.

Storage areas containing large quantities of Laminex™ Acrylic Panel must be adequately ventilated.

Work areas must be well ventilated and kept clean. Sawing, sanding and machining equipment must be fitted with dust extractors to ensure that dust levels are kept within standards laid down by Occupational Health and Safety New Zealand, or the specific country of use. If not, a dust mask conforming with AS/NZS 1715 and AS/NZS 1337 must be worn.

Offcuts, shavings and dust must be disposed of in a manner which avoids the generation of dust and in accordance with the requirements of local waste authorities.

In end use applications all product surfaces exposed to occupied space must be sealed.

Sustainability

The Laminex™ Acrylic Panel range is pressed in New Zealand on locally made, FSC certified MDF.

Technical Support

As not all product use options can be described herein, additional end use and specifying information is available as a complimentary service.

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