



Laminex Timber veneer is crafted from sustainably sourced logs which have been peeled or sliced then joined to create naturally beautiful faces which can then be laminated to the desired wood based substrate.

COMPOSITION

Thin slices or leaves of timber 0.6mm thick are joined to make up layons in face and backing grade

In a variety of species. The required combination is then bonded onto the selected wood based

Substrate most commonly MDF or Plywood.

USES

- Vertical interior use
- Kitchen cabinetry
- Light wear horizontal surfaces
- Panels on furniture
 - commercial and residential
- Wall units
- Bar fronts
- Shop fittings and displays
- Wall linings in dry areas
- Avoid areas with excessive exposure to natural light

DESIGN CONSIDERATIONS

Edge finishing and substrate exposure

The edges of Laminex Timber Veneer can be finished using edging of the same species in a 1.8 or 0.6mm Thickness supplied either unglued or preglued.

Edging a panel helps protect the substrate from damage and moisture.

Cutting panels

Any cut outs or alterations to the board that leave the substrate exposed, and do not provide a water resistant seal, should be coated with a suitable water resistant barrier to help maintain the integrity of the board and prevent moisture ingress.

Accessories

It is important to consider the design of accessories, such as handles, to be used to finish off cabinetry and furniture or similar. The design of accessories can play a key part in ensuring moisture does not get trapped and cause the substrate to distort.

APPLICATIONS

Laminex® timber veneer panels are suitable for both commercial and residential interior applications in vertical and light use horizontal areas. They can be used to make tables, furniture and general joinery but are not recommended for high wear applications such as kitchen benchtops or wet areas.

VENEER GRAIN

It is normal practice to specify dimensions of veneered panels 'length by width by thickness'. The first nominated dimension specifies the direction the veneer grain runs eg. 1200x2400 has the grain running parallel to the 1200 length. This is referred to as cross grain.

EXPOSURE TO WATER AND SUNLIGHT

Veneer products, including Laminex timber veneer, being partially comprised of natural timbers will react to direct and indirect light. Therefore, a change of the surface colour and appearance over time is a natural characteristic, not a defect. Additionally, heat and humidity will interact with light to accelerate the ageing process.

If exposed to direct and strong light timber veneer products may undergo sudden and irregular changes from the original colour. As little as an hour's exposure to sunlight may change the colour of timber veneer.

Water will stain the face of veneers if allowed to 'pool' on the surface. We recommend that all timber veneers be stored within closed sheds where they will not be exposed to sunlight and moisture.

LIMITATIONS

A timber veneer panel is not a finished product. It will need to be finished and polished as part of the manufacturing process. Advice should be sought from a coating specialist.

Timber veneer is a natural product, each tree has its' own unique characteristics therefore natural features and differences will be apparent between sheets. This is not considered a defect.

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STORAGE AND HANDLING

Laminex timber veneer panels can be handled and stocked as a traditional wood panel. However, some specific features of timber surfaces require particular care. Laminex timber veneer panels should always be stacked horizontally, at a moderate ambient temperature (about 20°C) and a relative humidity of around 60%.

As with all veneer surfaces, they must be protected from wind and sunlight with a cover sheet or non-transparent plastic, preferably dark, in order to assure stability.

Panels are always to be handled by two people.

The storage area should be protected from sun, rain and wind to minimise rapid changes in temperature and humidity. Open sided sheds should not be regarded as dry stores.

- All packs should be evenly supported at each end and at intervals of not more than 600mm. Where packs are multiple stacked, all supports should be vertically aligned.
- To avoid staining and fading, the sheets should not be exposed to the weather while awaiting installation.
- Keep the surface free of contaminants such as dust, oil and adhesives that will affect the surface finishes.

CARE AND MAINTENANCE

As timber veneer panels are not supplied as a finished product it is recommended that the coating supplier is consulted for advice on care of the finished surface.

LIMITED WARRANTY

All Laminex timber veneer panels are covered by a 7 Year Limited Warranty subject to following all necessary storage, handling and installation guidelines. Please obtain a copy of a Laminex timber veneer 7 Year Limited Warranty from Laminex New Zealand or visit www.laminex.co.nz

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 nasal 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 timber veneer panels 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.

TECHNICAL SUPPORT

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

**Laminex New Zealand® Customer Services on
0800 303 606. www.laminexnewzealand.co.nz**

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WORKING RECOMMENDATIONS

Machining

To obtain the best results when machining avoid excessive speed rates.

Guidelines for cutting				
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)	43	52	58	65

As these are examples taken from various tooling manufacturers, please consult with your tooling supplier to ensure safe operating speeds are used.

A saw 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.

However, sophisticated machinery is not always necessary to achieve quality edge finishes, A sharp bench saw buzzer or router combination or for the home handyperson, a fine tooth panel saw, hand-planer combination can be used to give excellent results.

In both applications, panels should be cut slightly oversize and then edges planed to final dimensions. To avoid excessive breakout when hand-sawing, keep saw on a low angle to the sheet, provide adequate support to the sheets and do not force saw-blades through the cut.

For using as a wall lining, framing must be dry and a suitable wall board adhesive such as Maxbond should be used after first sanding the surface to provide a key for adhesive. Expansion joints should also be allowed for.

Fastening

Selected screws

Always use screws specifically designed for use with medium density fibre board or particle board 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. 16mm panel = 10.5mm maximum penetration.

Pilot hole diameters for Superfine particleboard								
Screw gauge	3	4	5	6	7	8	9	10
Pilot Hole Dia in mm	1.0	1.25	1.45	1.6	1.65	1.95	2.1	2.25
Pilot hole diameters for Lakepine MDF								
Screw gauge	3	4	5	6	7	8	9	10
Pilot Hole Dia in mm	1	2	2.4	2.6	2.7	3.0	3.3	3.5

GUIDELINES FOR CNC MACHINING OF PANELS

Panel cutting

Cutter type	12mm Spiral cutter	4mm Spiral cutter
Cutter speed RPM	18000 rpm	18000 rpm
Max feed rate (m/min)	2.0 m/min	1.0 m/min

Recommended cutters are Vortex 1200 two flute upcut finishing spiral type or equal.

Panel boring

Cutter type	20mm Forstner bit	8mm Brad point	5mm Brad point
Cutter speed RPM	4000 rpm	4000 rpm	4000rpm
Max feed rate (m/min)	1.3 m/min	1.0 m/min	1.5 m/min
Recommended max feed rate	47	56	66

Chip load information

The chip load is a measurement of the thickness of material removed by each cutting edge during a cut. This is a valuable piece of information which can then be used to calculate new setups.

Calculations are as follows: chip load = Feed Rate (millimetres per minute) / (RPM x 2 Flutes) Chip Load = 0.4233

Chip loads are based on material thickness of average size for the cutting edge length of the tool. These recommendations do not apply to thicker materials or tools with long cutting edge lengths. These chip loads are only a recommended starting point and may not accommodate all circumstances.

We would strongly encourage you to consult your tool supplier directly on new tool applications.

Cutter setup and cutting tips

Care should be taken to ensure that the scriber tips of the cutter are set below the lower face of the panel to avoid chipping of the lower face veneer.

For fine finishing an onion skin cut* finish is recommended and for small pieces such as small drawer backs and cabinet rails, these should be tabbed to adjacent parts to hold these in place during the cutting process. Tabs need be only thick enough and long enough to hold 0.3mm, 15-20mm long. Once the cutting is completed the tabs may be snapped off and if necessary, a light sanding to remove.

*Onion skin cutting can be achieved by cutting the panels approximately 0.5mm over size on all sides and by leaving approximately 0.3mm of the lower face veneer in tact. A second cut of the panel is then made to trim the panel to the final dimensions with the cutter penetrating beyond the lower face thus ensuring a clean and non chipping panel.