



Decorgrain Veneer Technical Data Sheet

Product Name: Decorgrain Veneer

Product line and identification: Veneer species

Manufacturer: Decorply NZ Ltd T/A Decorpanel

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Product Description

Decorgrain Veneer is made by cutting logs into thin "leaves" on slicing machines or peeling the log into sheets on a rotary lathe. After slicing, the veneer leaves are dried, joined into sheets then glued onto the substrate, fabricated into joinery or wall panels etc. and finished with a clear coating. Slicing the log in different directions produces different patterns or "cuts":

- **Crown-cut** - The veneer is sliced across the log - that is, on plane of the secant to the cylinder of the log. This produces a pattern that cuts across the growth rings of the log producing a "V-shaped" pattern. Crown-cut veneer leaves are generally wider than Quarter-cut veneer leaves.
- **Quarter-cut** - The veneer is sliced in the plane of the radius of the cylinder of the log producing a linear grain. Because trees do not grow perfectly straight and are tapered, there can be significant slope or swing (curve) in quarter-cut veneer.
- **Rotary** - The veneer is "peeled" around the log producing wide sheets of swirly grained veneer. Birch veneer is commonly sliced in this way.

Dimensions

Thickness 0.4-0.6mm.

Length (ie along the grain): Most species are available in lengths 2500mm and 2800mm, producing trimmed veneered panels 2440mm and 2740mm long. Some species are only available in 2500mm (panel length 2440mm), and others are available at 3100mm (panel length 3040mm) and up to 3600mm long. However, our veneering equipment cannot handle sheets longer than 3150mm. Please check the available lengths by contacting Decorpanel.

Width (ie across the grain): The width of the veneer leaves in each flitch is dependent on the diameter of the original log and because logs are not square leaf widths will vary throughout



the log. Typical widths range from about 120mm to 250mm. The leaves from each flitch are joined to each other (“spliced”) to make veneer sheets (“layons”) generally 1250mm wide, which trim back to a 1220mm veneered panel. Narrower sheets can be made, and some veneer presses can use wider layons to make panels widths of 1550mm.

Matching

The veneer leaves produced from slicing a log need to be joined to make full width sheets. They can be arranged/joined (“matched”) in various ways:

Book-matched: the “traditional” method of matching veneer. Every second leaf is turned over just like the pages of a book – creating a “mirror-image” around each join line.

Slip-matched: In this, veneer leaves are joined side by side (“slipped” alongside one another), conveying a sense of repeated grain.

Planked: Individual leaves from different logs or different parts of logs are joined together in a random way but so that the colour blends as best possible. Ideal for large wall or ceiling areas.

Grain direction

Long-grain - The direction of the veneer grain is usually along the panel length.

Cross-grain - The direction of the veneer grain can also be run across the panel. This is more expensive & results in shorter log-run lengths than long-grain.

Applications

Decorative wood veneered panels are suitable for use in interior, low-wear and dry applications, such as joinery, furniture, wall and ceiling panels. Veneer can be used on kitchen/bathroom-vanity doors if the room is properly ventilated and if the veneered panel is properly edge-banded and sealed. Veneer can also be used in low-wear dry horizontal applications such as board-room tables and office work-stations. High humidity and large fluctuations in humidity can be a problem for both veneer and substrate. Veneered panels are generally not suitable for flooring, unless specially fabricated and coated, nor is it suitable for high wear, wet, steamy or very damp applications such as kitchen counter/vanity tops, splash-backs or above stoves and dishwashers. Veneer should not be used in exterior applications even if under an awning. It should always be kept out of direct sunlight.

Appearance of veneer and selecting your veneer

Natural veneer may vary in appearance between different logs, within logs, from samples to actual current stock and from the images on our website compared to samples or the veneer used on a project.



The best way to control the appearance of veneers and to ensure best possible matching veneer between different packages is to calculate the (approximate) square metres and panel lengths in your project. Then make an appointment to inspect and reserve specific fliches at our warehouse about four weeks prior to the veneer being required. Alternatively, contact us to have samples of a suitable current leaves posted to you. Also, for best possible consistency within a project, all veneer should be ordered at one time and the same coating should be used across the entire project.

Veneer surfaces, like all coloured materials and woods, may fade or discolour over time, particularly on exposure to strong direct or indirect light, heat and air. The degree of colour change may depend on the veneer, species, the individual log, the coating, the duration of exposure and the wavelength of light. Colour change such as yellowing and fading can be minimised or reduced, but not eliminated, by avoiding continuous exposure to bright light, coating the panel immediately after sanding and using the correct type of coating such as a non-yellowing 2-pack acrylic-urethane with manufacturer approved UV prohibitor for sealer and top coats. Note that the appearance of different logs of veneer may age differently to other logs of the same species.

Please note that availability of species, cuts, lengths, edging etc may change from time to time & may be subject to stock runouts, please contact us to check current stock availability before finalising designs.

Pressing & Coating & Fabrication

Matching the veneer leaves

The veneer leaves should be matched (Book-Matched, Slip-Matched, and Planked etc.) to suit the veneer and/or the client's or project requirements.

Joining the veneer leaves

Veneer leaves must be straight-cut on a veneer guillotine ("jointing"), edge-glued and spliced in the required matching pattern to make layons (sheets of veneer).

Substrates

Suitable substrates are MDF or particle board. Plywood may also be used, but to prevent cracking, veneer should be laid at right angles (across) the direction of the face veneer of the plywood. Substrates should be of uniform thickness, clean, free of oil, grease and other foreign materials. Veneers should not be applied directly to plasterboard, concrete, brick or timber.

Pressing/Gluing onto substrate

The veneer layons are glued ("laminated" or "pressed") onto the substrate using specialized adhesive. The panels are then pressed using a hydraulic cold press and a hot press. To prevent warping and bowing, a balancing veneer in the same grain-direction as the face veneer, and same thickness, moisture content and general type/tensile strength of veneer should always be used on the back of veneered panels.



Trimming & Sanding & Brushing

Hand-trimmed, sanding and brushed (Soft Brush, Medium Brush and Course Brush by requested) before despatch.

Edging

Veneered panels should be edged with veneer edge-strips or some other sealing process. This is important to prevent moisture ingress, to protect the edges of the panel and also for appearance.

Finishing/Coating

Decorgrain Veneer panels should never be used in the raw state but must always be sanded then finished with a suitable coating or sealer. Coatings are available in a range of types and gloss levels (For example, Matt, Low-Sheen, Satin, Semi-Gloss and High-Gloss). It should be noted that the type of clear-coating, light, humidity, age/time may affect the appearance of the finished panels. Generally, high wear (such as desks) or humid applications (such as bathrooms) require a two pack polyurethane or similar.

To minimize yellowing, fading and colour change with age and exposure to long periods of light, a non- or low yellowing polyurethane (such as a non-yellowing 2-pack acrylic-urethane) with manufacturer approved UV inhibitors should be used for sealer and top coats. Sealer and coating film thickness to be as recommended by the coating manufacturer. For best consistency of appearance, the same coating type and gloss should be used across the entire project by all contractors. Do not use acid catalysed coatings on pale veneers, American Walnut, American Cherry, and Beech.

It is preferable for veneered boards to be coated immediately after sanding, because raw wood exposed to air may oxidise and discolour.

This information is presented as a guideline only - expert advice should be sought with regards to coatings – please contact your coating supplier.

Bending

Multiple layers of veneer layon sheets can be glued up to bent around a curve. These sheets can be bent either longitudinally or transversely.

Substrate options

Decorgrain veneer can be pressed onto a range of substrate options. Please refer to the product availability chart under each product on our website. For special sizes of substrate, please contact our team.

The end-user is responsible for carrying out the necessary tests and trials to check that the veneer, coating type, fabrication methods, associated materials and cleaning products/methods are suitable for the application.



Physical Properties

As the manufacture of Decorgrain Veneer does not result in a finished product, physical properties are not provided. Surface properties should be sourced from the coating manufacturer. Additional sanding is required before any coating is applied.

Density and other physical properties of individual species

See <https://www.wood-database.com/>

Formaldehyde emissions: E0

Compliance

New Zealand Building Code Compliance:

Clause B2 Durability:

Decorgrain veneer panels meet the durability requirements for interior linings of 5 years in accordance with B2 3.1(c) of the New Zealand Building Code (NZBC).

Clause C3 Protection from Fire:

1. Decorgrain Veneer pressed on MDF FR complies with UNE-EN 13501-1:2019 and is classified as B-s1,d0. According to NZBC Acceptable Solutions C/AS2 Appendix C Table C1.1, the European Classification B-s1,d0 is equivalent to Group Number 1-s.

2. Decorgrain Veneer pressed on MDF FR MR complies with UNE-EN 13501-1:2019 and is classified as B-s1,d0. According to NZBC Acceptable Solutions C/AS2 Appendix C Table C1.1, the European Classification B-s1,d0 is equivalent to Group Number 1-s.

3. Decorgrain Veneer pressed on standard MDF complies with ISO 5660 Parts 1 and 2. According to NZBC Verification Method CNM2 Appendix A, this is classified as Group Number 3.

Sustainability

At Decorpanel, we hold firm to the belief that sustainability is achieved through the responsible use of our natural resources, ensuring the needs of future generations can be met. As we strive for economic growth, we recognise the imperative of preserving our natural environment and ecosystem. Our commitment is to uphold a healthy and sustainable environment by conscientiously utilising the resources given to us by the forests for long-term development.

As a socially responsible entity, Decorpanel is dedicated to adopting green practices and pioneering innovations in our industry. This includes introducing new product lines, exploring innovative manufacturing techniques, and optimising raw material usage to enhance efficiency. We prioritise investing in energy-efficient machinery and minimising manufacturing waste from the outset. Through ongoing staff training, we foster a culture of environmental responsibility and performance excellence.



Handling & Care

Storage and use

Decorgrain veneer panels should not be stored exposed to bright light, excessive heat, prolonged temperatures above 40 degrees C, high-humidity, chemicals, water and other liquids. Avoid even temporary contact with water and other liquids and avoid any moisture on product surface. Store flat at least 200mm from the floor and keep covered with plastic sheeting and/or a cover sheet. To protect from the effects of light and dry air or wind, always keep veneered panels completely covered with a panel of flat plywood, MDF, etc. Keep the humidity range of the storage area between 40% and 70% (RH). Veneered products are not suitable for exterior use. Nor are they suited for high wear applications or wet horizontal surfaces such as counter tops.

Transport

When transporting, care must be taken to keep it dry, protected from air/wind and clean from road dirt and dust.

Care

Decorgrain veneer panels are supplied in the raw and we do not have control over the finishes/clear coats used. Hence we are unable to provide specific care instructions or warranties for the finished product - please contact your coatings supplier. However, Decorgrain veneer panels should not be left wet/damp or with staining materials on them (such as dark fruit juice/wine). They should not be cleaned with furniture wipes, harsh cleaners, chemicals, bleach, ammonia, solvents, alcohol and products containing orange oil. Abrasive cleaning of clear finishes can scratch the surface and reduce the visual clarity. Silicone based products must be avoided.

Dusting: Use only a soft dry cloth or feather duster.

Polishing: Use a high quality furniture polish and a soft dry cloth. It is recommended the polish used not contain any silicone as they may cause recoating or refurbishment problems at a later date. Abrasive polishes should be avoided.

Extreme Temperature Changes: The expansion or contraction of the timber due to extreme temperature changes may cause damage to the surface coating. Care should be taken in air conditioned or heated environments to keep temperature changes within reasonable limits. Use heat resistant place mats under hot food and beverages to avoid heat damage.

Spillages: All spillages should be cleaned with a damp cloth as soon as possible. Moisture may cause damage to the coating. High humidity, steam and excessive water being in contact with the coating may cause the coating to crack, or if it gets under the coating cause white marking of the veneer surface. If spilled, chemical substances and alcohol should be removed immediately from all veneered surfaces.

Dirty or Greasy Marks: After first wiping with a dry cloth, wipe with a cloth lightly dampened with a mixture of water and a high quality furniture polish, or dilute mild detergent. Persistent dirty or greasy marks may be removed by mild, non-abrasive proprietary cleaners appropriate to the type of surface finish. The appropriateness of the cleaner should be sought from the surface coating or cleaner manufacturer. The effect of the cleaner on the



surface should be tested on a hidden or a less conspicuous section on the finished veneer surface.

Bright light and UV: Direct sunlight and very bright indirect light should be avoided on all internal veneered surfaces because fading, bleaching or colour changes to the surface coating and to the veneer may occur. Use curtains, blinds and UV filter-membranes on windows to reduce the intensity of the light. Excessive hot sunshine may dry the veneer surface more quickly than the veneer substrate thereby causing small surface checks parallel to the grain to appear and possibly damage the surface coating

Health and Safety

Decorgrain Veneer panels should be handled in accordance with Veneer Safety Data Sheet (SDS) which is available online at www.decorpanel.co.nz

Natural wood veneer sheets in its raw state has no added formaldehyde. Formaldehyde emissions are well below Super E0 (which is 0.03 ppm). And raw veneer has negligible VOC's (volatile organic compounds).

Where Decorpanel MDF Standard or MDF MR substrate is selected, formaldehyde emission class E0 = less than 0.5mg/litre.

Dust from wood and resins used in the manufacture of Decorgrain Veneer are known health hazards. When machining Decorgrain Veneer sheets, including sanding, drilling, planing, routing and sawing, a suitable class P1 or P2 respirator should be worn along with non-fogging safety glasses.

To avoid cuts from sharp edges suitable protective gloves should be worn.

As in all wood working operations, it is essential that adequate protection is taken against the contact and the breathing of wood dust when processing, and that normal workplace hygiene practices are followed.

Technical Support

Further information and Further information and technical support is available by contacting Decorpanel on 09 580 0528. This publication was updated in May 2024. Please ensure that you are using the latest publication by contacting Decorpanel or downloading the latest Technical Data Sheet from www.decorpanel.co.nz. Decorply NZ Ltd T/A Decorpanel reserves the right to make changes to information in this publication without notice.