TruNatur

Particle Board Fabrication & Installation Guide

Commercial Cabinetry

Polymer Veneer Woodgrain Indoor Panels
Australia & New Zealand

September 2025

INTRODUCTION

Thank you for interest in the *EGR Decor TruNatur product range.*

This document provides a comprehensive set of technical specifications for TruNatur, as well as answering common questions about machining, fabrication, installation, and care.

TECHNICAL SUPPORT

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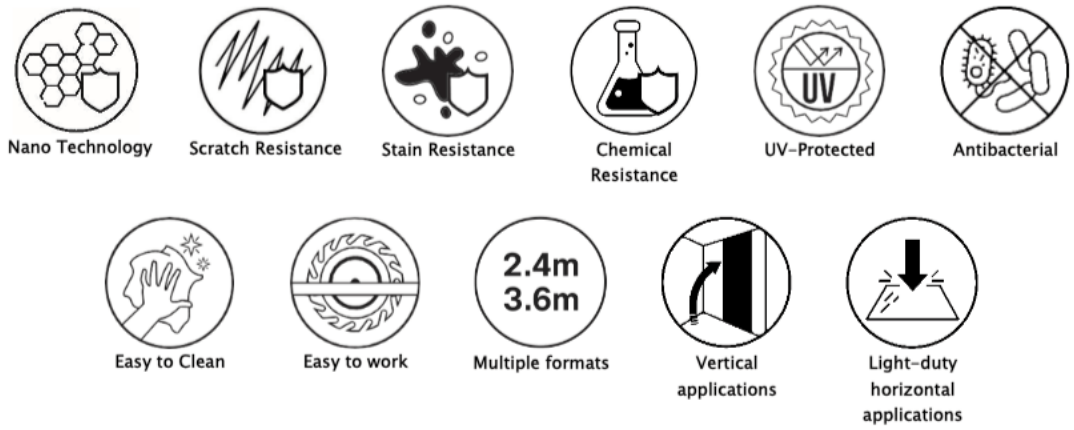
Overview

TruNatur Particleboard is a versatile panel solution that combines a Particleboard Moisture Resistance (MR) core with a premium polymer veneer, bonded using advanced PUR reactive hotmelt technology. The premium polymer veneer features a nano coated surface that offers superior resistance to scratches, stains, chemicals, UV exposure and antibacterial protections

Applications

TruNatur Particleboard is designed for interior decorative vertical and light-duty horizontal applications- including cabinet doors, drawer fronts, face panels, and floating shelves- and offers a high-performance alternative to natural timber veneer for commercial projects such as offices, retail, and multi-residential projects.

Quality Features



TruNatur Particleboard Panels

Premium polymer veneer offers different woodgrain patterns and textured embossing for a natural timber look and feel.

SUBSTRATE	FINISHED PANEL SIZE	APPLICATION	WEIGHT	FINISH
Particleboard Moisture Resistance (MR)	2400x1200x16mm 3600x1200x16mm	Cabinet doors, drawer fronts, face panels, and floating shelves	8kg/m^2	Woodgrain textured

Important Information

- Fabrication and installation must comply with AS/NZS 4386 standard and relevant guidelines in this document.
- EGR DECOR is not liable for improper fabrication or installation of TruNatur products.
- It is the installer's responsibility to ensure the product's suitability for the intended application.

Warranty

- TruNatur panels include a limited 7-year warranty.
- TruNatur edgebanding include a limited 1-year warranty.

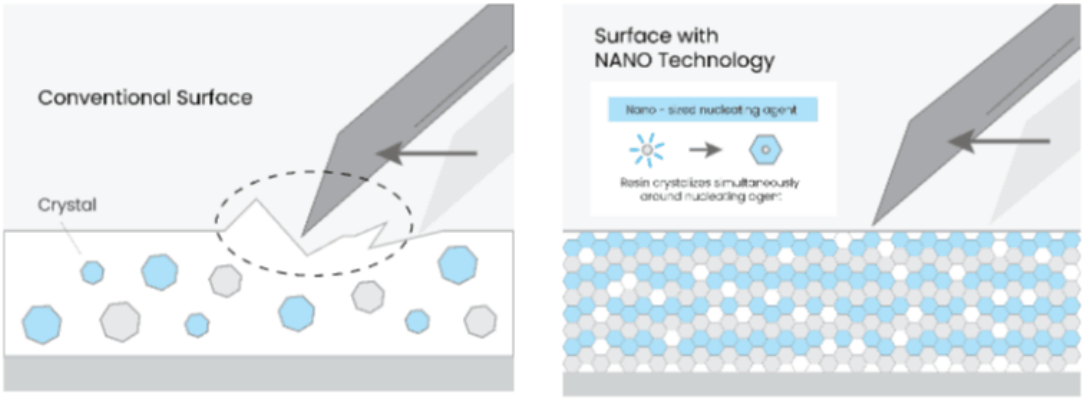
Comparison Table – Pros and Cons of MDF vs Particleboard panels

ASPECT	MDF	PARTICLE BOARD
Strength & Density	Denser, stronger and rigid overall but heavy.	Lower density; lighter weight; less overall strength but adequate for many applications.
Screw Holding Capacity	Moderate; prone to splitting or pull-out under repeated loading.	Superior screw-holding due to larger wood particles and resin structure.
Machinability	Excellent for shaping, routing, and detailed profiles.	Good for cutting and drilling, but less suitable for intricate edge profiling.
Processing	Requires more time and power to cut; heavier load on tools; higher wear on saw blades and router bits.	Easy to cut; up to 3× faster machining; lower tool wear and energy use, ideal for high-volume production.
Tooling	Blunts tools quickly; needs frequent blade and bit replacement.	Gentler on tools; extended tool life, fewer changeovers, lower operating costs.
On-Site Work	Restrictive—requires a dedicated cutting room due to fine dust, weight, and tool wear.	More site-friendly—easier cutting with standard tools; faster install and less demand for controlled cutting areas.
Weight & Handling	Heavier, making transport and handling more difficult.	Lighter, easier to handle on-site and during installation; reduces load on structures.
Best Suited For	Premium cabinetry. High-end joinery requiring detailed edge profiling.	Commercial fitouts and large-scale projects where speed, cost, and ease of processing are priorities.

TruNatur Particleboard Panels – Installation & Fabrication Top Tips

- Install only in indoor, undercover areas, away from direct sunlight.
- Store panels flat, horizontal, and fully supported to prevent bowing or distortions.
- Panels can be cut and drilled using standard woodworking tools.
- Fully compatible with all standard hardware, hinge and fittings.
- For doors, limit width to 600 mm to maintain stability and performance.
- Ensure fixing points every 300 mm or less for reliable support.
- Pre-drill and countersink screw holes for stronger, long lasting joints.
- Avoid cut-outs or openings; reinforce where necessary to minimise twisting or warping.
- Seal all edges with edging or suitable sealant to protect against moisture ingress.
- Edgebanding is suitable with both EVA and PUR adhesives.
- Clean surfaces gently; avoid harsh chemicals, solvents, or abrasives.
- Always refer to the full TruNatur technical documents and warranty for complete guidance

NANO Technology



The NANO technology offers superior resistance compared to traditional finishes. With a special resin-crystallization method using nanosized materials, it achieves higher performance and durability in decorative sheets.

Certification

- TruNatur has achieved GreenTag PHD™ PlatinumHEALTH™ rating – recognised by WELL™ and LEED® as a world-leading certification for product health.

Unsuitable Applications

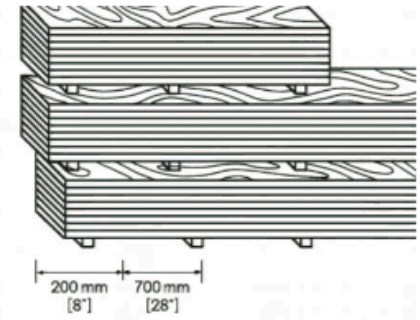
- TruNatur Particleboard panels are not intended for structural applications.
- TruNatur Particleboard panels are not suitable for outdoor areas.
- TruNatur Particleboard panels are combustible materials.

Guaranteed Quality

- TruNatur Particleboard panels comply with the relevant sections of AS/NZS 1859
- TruNatur is manufactured in Australia at EGR's ISO 9001-accredited facilities.
- All panels are laminated with advanced PUR reactive hot melt bonding technology by EGR.

Storage and Handling

- Always handle panels with two people to prevent breakage or damage.
- Lift panels during loading and unloading, do not drag or slide them.
- Store panels in a clean, dry, and well-ventilated area.
- Keep panels stored flat, horizontally, and fully supported at all times.
- Do not transport or store panels in direct sunlight or damp conditions.
- Stack multiple packs with properly aligned gluts/bearers to ensure stability.
- rotect the top and bottom of each stack with cover boards.
- Follow correct storage practices to avoid bowing.



Correct storage method

Place panel packs on a level, hard, and dry surface with evenly spaced gluts or bearers:

- 4 gluts for 2400 mm standard panels
- 6 gluts for 3600 mm long panels

Fabrication

Overview

- TruNatur Particleboard panels can be cut and drilled with using standard woodworking tools.
- Always test cut and drill on a sample piece to determine the optimal settings.
- Rough or chipped edges may occur due to excessive friction, inadequate support, or worn/improper tooling.
- Adjust processing to prevent masking strands at the edges, which can complicate edgebanding.
- Ensure proper dust extraction and ventilation during machining.
- Control heat during cutting to avoid burn marks or foil delamination
- Inspect all panels for defects on delivery, before cutting or fabrication.

Cutting

- Panels can be processed with standard carbide or diamond tools.
- A small-diameter, 2-flute solid carbide compression bit is recommended.
- Recommended cutting parameters

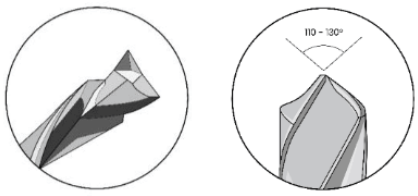
RPM	16,000–18,000
Feed rate:	Moderate — avoid burning from slow feeds or chipping from excessive speed.

Saw Cutting

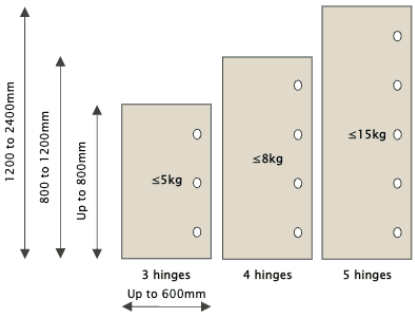
- TruNatur Particleboard can be cut using standard setting on beam and panel saws.
- A sharp carbide-tipped triple chip grind (TCG) blade with 3 to 5 teeth per cm is recommended.
- Maintain a low cutting height (15–30 mm) with standard or lower RPM to avoid overheating.
- Feed panels at a steady, continuous speed — do not pause mid-cut.
- Always use a scoring blade on panel saws to prevent edge chipping and foil lift.

Drilling

- Use carbide or diamond-tipped drill bits with a point angle of 110° to 130° to ensure clean cuts and minimize chipping.
- Operate at slow to moderate drill speed with light feed pressure to prevent overheating and material damage.
- Secure the panel on a stable surface with proper backing to prevent vibrations and reduce breakout on the exit side.
- Always drill perpendicular to the panel surface to ensure clean, precise holes and avoid delamination.
- Drill holes slightly larger than fasteners to allow expansion and prevent cracking.



TruNatur Particleboard Panel - Size & Design Requirements



- Single door panels must not exceed 600 mm in width.
- Cut-outs or openings are not recommended.
- Reinforce when necessary to minimise warping or twisting.

Hinge Recommendation

- Test hinge drilling on a sample panel to confirm depth and backset.
- Use the appropriate number of hinges, spaced no more than 300mm apart, to maintain strength and stability.

General Assembly Recommendation

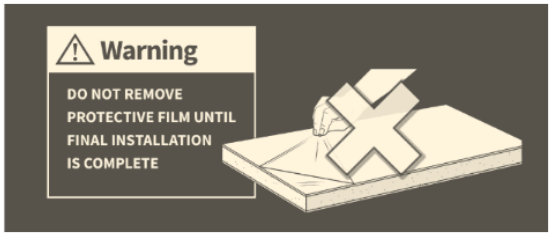
- TruNatur is compatible with conventional hardware and hinge systems.
- For doors and front panels, space fixings at a maximum 300mm apart.
- If drawer system fasteners are spaced wider than 300mm apart, add extra fixing points. A support bracket is typically fitted under the bottom drawer panel.
- Do not over-tighten screws or apply force (e.g., hammering) during assembly, as this may damage the panel.

Cleaning During Fabrication

- Wipe spills or stains immediately to avoid permanent damage, residue buildup, or surface deterioration.
- During fabrication, if surface contamination appears, lightly dampen a microfiber cloth with white spirit (mineral turpentine) and gently wipe.
- Test any new cleaning product on a hidden or off-cut section before full use.
- Do not use abrasives, strong solvents, or harsh chemicals.
- The following products must never be used:
  - ✗ Acidic cleaners e.g. vinegar, rust removers, or limescale removers
  - ✗ Alkaline cleaners e.g. bleach, oven cleaners, baking soda.
  - ✗ Ammonia-based cleaners e.g. window and glass cleaners
  - ✗ Strong solvents e.g. acetone, isopropyl alcohol (IPA) or methylated spirits
  - ✗ Abrasive cleaners e.g. scouring pads, rough sponges, or gritty cleaners like CIF ABS edgetape cleaner.

Edge Finishing

- TruNatur edgeband works with EVA and PUR adhesives.
- Conduct trials to determine the optimal settings and operations for each specific application
- Adjust trimming tools and scrapers to avoid damaging the textured surface or causing lips.
- Use white adhesive for white panels and transparent adhesive for coloured or woodgrain panels.
- Only use cleaning agents recommended by the adhesive manufacturer and always test on a small sample first.
- During edging, if glue overrun appears, if surface contamination appears, lightly dampen a microfiber cloth with white spirit (mineral turpentine) and gently wipe.
  - ✗ **Never use ABS edgeband cleaners on TruNatur**.



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