

TECHNICAL DATA SHEET

Birch Plywood – Interior Grade 5x5's

Product Description

Birch Plywood 5x5's (commonly referred to as **Laser Ply**) is a high-quality, interior-grade plywood manufactured from selected birch veneers bonded with an interior glue line. It is specifically designed for **laser cutting, CNC routing, engraving, furniture components, interior joinery, and decorative applications**, where clean edges and dimensional stability are essential.

Standard Dimensions

| Parameter | Specification |
|-----------------------|---|
| Panel Size | 5 ft × 5 ft (1525 mm × 1525 mm) |
| Thickness Range | 3 mm, 4 mm, 6 mm, 9 mm, 12 mm, 15 mm |
| Tolerance (Thickness) | ±0.2 mm (typical) |
| Squareness | ≤ 1 mm per 1000 mm |
| Grade | BB/BB |

Construction

- **Face / Back Veneer:** Birch
- **Core Veneer:** Birch (multi-layer, cross-banded)
- **Glue Type:** Interior-grade adhesive (Laser Ply / MR equivalent)
- **Bonding Standard:** Suitable for dry, interior conditions
- **Surface Finish:** Smooth, sanded on both sides

Physical & Mechanical Properties

| Property | Typical Value |
|---------------------------------------|-----------------------------|
| Density | 650 – 700 kg/m ³ |
| Moisture Content | 8 – 12% |
| Modulus of Rupture (Bending Strength) | ≥ 30 N/mm ² |
| Modulus of Elasticity | ≥ 6000 N/mm ² |
| Screw Holding (Face) | Good |
| Screw Holding (Edge) | Moderate to |

Good

Dimensional Stability High

Values are typical and may vary slightly depending on thickness and production batch.

Glue Line / Bond Performance

- **Glue Line Type:** Interior / Laser Ply
- **Water Resistance:** Not suitable for exterior or wet conditions
- **Heat Resistance:** Suitable for laser cutting without excessive charring
- **Delamination:** Resistant under normal interior use

Machining & Processing

- **Laser Cutting:** Excellent (clean edges, minimal voids)
- **CNC Routing:** Very good
- **Saw Cutting:** Clean and splinter-resistant
- **Drilling:** Good
- **Sanding:** Fine, smooth finish achievable

Applications

- Laser cutting and engraving
- CNC-routed components
- Furniture and cabinetry
- Interior wall panels
- Shelving
- Decorative and craft applications
- Model making and prototyping

Environmental & Safety Information

- **Formaldehyde Emission:** Interior-grade compliant E1 class
- **Use Environment:** Dry, interior conditions only
- **Storage:** Store flat, in a dry and well-ventilated area

Limitations

- Not suitable for exterior use
- Not recommended for high-humidity or wet environments
- Prolonged water exposure may cause swelling or delamination

Disclaimer

The information provided in this Technical Data Sheet is based on typical values and is intended for general guidance only. Actual performance may vary depending on usage, processing methods, and environmental conditions. No warranty is expressed or implied.