



***Prefinished real wood veneer***

## **PRESSING & FABRICATION**

### **Substrates**

Suitable substrates are MDF or particle board. Plywood (AA face grade) may also be used, but is more likely to bow or twist. Substrates should be of uniform thickness, clean, free of oil, grease and other foreign materials. Innato should not be applied directly to plasterboard, concrete, brick or timber. Gluing to metal is possible but requires careful preparation of the surface, particular attention being paid to thorough degreasing of the metal and the balancing backer.

### **Conditioning and Pressing/Gluing onto substrate**

Due to its real wood surface, Innato is more sensitive to warping than melamine laminates. If glued when moist or too dry, there is a risk of cracking due to shrinking or expansion of the wood. Innato, the substrate and the backer laminate ideally should be conditioned for at least 2 days prior to pressing in the environment in which they will be bonded and used. The best conditions are 50% to 60% relative humidity and 18°C to 22°C. Conditioning is most effective if air can circulate between the sheets during storage. Innato should be cold-pressed onto the substrate in a plywood-, veneering- or laminating-press, using a PVA or PUR glue, according to the glue manufacturer's instructions and using their recommended glue spreads. Uniform glue spreads with 100% coverage are essential. When using a press, the pressure must be between 2kg/cm<sup>2</sup> and 5kg/cm<sup>2</sup> to ensure correct bonding. A balancing laminate backer must be used, preferably of the same Innato type/specie. We recommend that trial bonding is carried out with the equipment, settings, glue, substrate and backer to be used in the project.

PVA glue is water-soluble and may be easily removed. Spills of PUR glue must be removed immediately - if these glue deposits harden, they will be difficult to remove without damaging the panel's surface, their removal being possible only with a sharp-edge chisel, which can damage the laminate.

Note that laminating Innato onto substrate is a skilled job best undertaken by experienced panel layers and laminators. Hand lamination and the use of contact adhesives is generally not recommended except by those experienced in this. In this case it is important that the glue is applied to both surfaces. If using a glue spatula, apply the glue on one surface at right angles to the other. Care must be taken to ensure that all solvent has evaporated before bringing the laminate and substrate together (otherwise, delamination may occur). Then start to press from the middle of the board (never begin from the sides). Once the surfaces are making contact they can be pressed by using a roller with two grips. Use body weight for pressure. Never use a hammer and block, or a roller with only one grip. Innato comes with a peel-off clear plastic protective film on its surface – this should be peeled off before pressing or laminating.

### **Edging**

Edge finishing may be done with a fine mill file. Innato on substrate must be edged-sealed or have edge-bands applied, with 0.9mm ABS edging being available for most Innato laminates. If ABS edging is not available, self-edging can be done with the laminate. In this case it is important that the side grain of the laminate is sealed with a lacquer pen or other clear finish or sealant, otherwise humidity will enter the timber veneer, with resultant wrinkling and/or staining.

### **Machining**

Innato can be machined, drilled or sawn using standard, sharp, carbide tipped tools as used in working with ordinary high-pressure laminates. It should be sawn with the veneer edge outermost to minimise surface chipping. Machine plates in contact with Innato should be smooth and clean. Innato on substrate may expand & contract slightly with changes in humidity. To minimise any stress cracking, take the following precautions:

- Avoid use near hot air vents and air conditioner vents
- Internal corner radii of laminate cut-outs should be smoothly rounded to a minimum of 5mm radius.
- Screw holes should be drilled slightly over-size
- Use of the laminated panels in damp or arid dry conditions will make stress cracking more likely. To minimise such problems, the product should be conditioned in conditions close to the humidity conditions of intended use.

### **Bending**

Innato cannot be post formed or bent around tight radii. It can be cold bent to a 200 mm radius (or greater) along the wood grain.

*As it is not possible to cover all associated manufacturing materials and conditions, the end-user is responsible for carrying out the necessary tests and trial bonding to check that the laminate, fabrication methods and associated materials such as glues, substrates and cleaning products are suitable.*