INFORMATION SHEET
HARD BEECH

Common name: Hard Beech
Botanical name: *Nothofagus Truncata*

WHY USE HARD BEECH?
Hard beech is the densest of the New Zealand beech species, similar to North American hard maple and with much the same properties. Hard beech has excellent strength properties and hardness with exceptional dimensional stability. It requires minimal sanding after machining to achieve a smooth high-quality finish and its steam bending properties are excellent. Its fine and even texture allows for uniform wearing and it has no odour.

APPEARANCE AND DESCRIPTION:
Hard beech heartwood is honey to brown in colour, sometimes varying from light to medium brown in one piece adding interest to the timber. Sapwood is a slightly lighter tone. The grain is straight with a fine and even texture. Lustre is slightly less apparent than other Southern beech species.

PERFORMANCE CHARACTERISTICS
Durability:
Hard beech heartwood is durable and can be used in exterior exposed situation. It is suitable for outdoor decking and achieves Hazard Class H3.2 durability. Pathological heartwood is non-durable. Hard beech sapwood is suitable for internal end-uses and is resistant to anobium and lyctus borers. The wood is slow drying and tension wood may be present.

Mechanical properties:

Density at 12% moisture content	753 kg/m3
Modulus of elasticity	14.5 GPa
Modulus of rupture	116 MPa
Side Hardness	5.9 kN
Tangential shrinkage – green to 12% MC	7.8%
Radial Shrinkage – green to 12% MC	2.7%

Machining:
Sawing, sanding, machining, finishing and turning properties are all excellent. However, there is a relatively high silica content that can cause blunting of conventional saws and cutters. This may be overcome by the use of specially hardened cutting edges. It is moderately easy to split. Satisfactory nailing with care.

Gluing and coating considerations:
Hard beech glues, stains and paints well. Galvanised fixings are recommended for exterior uses because unprotected iron nails stain the timber. Alternatives include stainless steel, silicon bronze or copper.