

The rubberwood wet-off-saw timber and rotary cut veneers ready for the pressure tank

Adding value to rubberwood in Malaysia

In November, the Editor of Wood SA & Timber Times visited the Seng Yip Furniture Group (SYF) factory in the scenic Klang Valley located 50km from Malaysia's capital city Kuala Lumpur. SYF manufactures a range of rubberwood products including kiln-dried sawn timber, laminated boards, furniture and smaller items

Founded in 1995, Seng yip Furniture Resources Berhad's success in shipping its products to over 70 countries including South Africa, saw it listed on the Malaysian stock exchange in 2000. In 2012, the Group decided to diversify its business activities and ventured into property development.

SYF sources its rubberwood from sawmills that process wood from sustainably managed plantations. The extensive facilities cover more than 35 acres of industrial land, which allows the company to be a one-stop manufacturer with end-to-end capability.

Pressure treatment

When the suppliers deliver the green sawn timber and rotary cut veneers, workers offload the wet-off-saw wood and then manually stack the wood onto trolleys for pressure treatment. The wood is treated with boron-based chemicals so that it will maintain its colour and resist fungal and termite attack. Rubberwood has a density of about 76%.

Sorting, stacking and drying

After pressure treatment, the lumber is visually and manually sorted for the required quality specifications and stacked for kiln drying. Based on my limited knowledge gleaned from attending South African Lumber Driers'

Educational Association (Saldea) meetings, the stickers do not appear to be quality controlled, and the stackers seem to place them at random intervals in the stacks.

A gigantic boiler fuelled by offcuts and sawdust provides the steam for the 36 massive Chinese-manufactured kilns. The stacks of rubberwood and veneers are not weighted down before being dried to a maximum moisture content of eight per cent.

When the conditioning and drying schedules are complete, the wood is transported by forklift to the storage area for sorting into two lines. The dried lumber is either



Treated rubberwood is stacked for kiln drying

from page 34
Adding value to ...

bundled and sent for dispatch to customers or sent to the drymill for value-adding.

Cross-cutting, moulding and sorting

In the drymill, each piece is visually graded and marked for cross-cutting according to the required quality and dimensions. The selected pieces are either put through a moulder and planed all round, or ripped to size and then planed.



The old and functional moulder is dwarfed by stacks of stock



The laminating presses produce bent components for chairs

Furniture manufacturing

At this point, the mill manager must decide: Should the wood be sent to the furniture manufacturing department for processing into furniture components for shaping, jointing, sanding, spray painting and assembly into tables, chairs, and cabinetry? Or should the wood be sent to the second value-adding line?

Finger jointing and butt jointing

The second value-adding line produces finger-jointed and laminated products such as mouldings and solid

wood posts and boards. The pieces are manually sorted into colour categories and inspected for defects before finger-jointing. Another quality control visual inspection takes place to check for cracks and finger defects and the components are then stacked and sent back to the kilns for 24 hours to ensure that the moisture content is below 10%.

Depending on the customer requirements, the kiln-dried pieces are planed and profiled by the Weinig Unimat Gold moulders, stacked and strapped and transported to the delivery bays.

Lamination, furniture parts, woodworking and finishing

The remaining finger-jointed timber proceeds through another manual quality and grading check before the adhesive is applied, the components laid-up and clamped for 25 minutes to form the required dimensions of boards or posts. Boards with a moisture content higher than 10% travel back to the kilns for another drying session.

The laminated boards that meet specifications are either cut and sanded for furniture manufacturing or put through the double-end crosscut saw and trimmed to the required size, sanded by the wide-belt sander, and packed ready for the customers.

Bending

Curved chair backs and seats are produced in a different section of the factory equipped with various shapes and sizes of hydraulic and high-frequency presses. Here the veneers are selected, adhesive applied, laid up, quality checked using a machine that measures the thickness of the assembly before it is loaded into the presses to make the required curved components.

Monsoon season

Our tour of the facility ended prematurely with a rude introduction to the monsoon season. The loudest explosion of thunder I have ever felt accompanied a torrential downpour that brought home the difficult conditions faced by wood processors in the tropics. 🌧️



There are six Weinig moulders at SYF



Monsoon deluge at SYF



Finger jointed and laminated boards

Malaysia demystified

In November, your Editor was invited by the Malaysian Timber Council (MTC) to join six international journalists and trade representatives to participate in a week-long programme that introduced and provided insights into the Malaysian forestry and timber industries

The trip included the first Malaysian Wood Expo with a wide range of exhibitors, including woodworking machinery suppliers. You will find a report on this auspicious event in the woodworking section of this edition of the magazine.

Future stories will focus on:

- The role and functions of the MTC
- The Malaysian Timber Certification Scheme (MTCS) which is the first tropical timber certification scheme in the Asia Pacific region to be endorsed by the Programme for the Endorsement of Forest Certification (PEFC). The MTCS strictly applies the PEFC system to certify sustainably managed forests and the integrity of the chain of custody.
- Sawmills and value-adding plants such as Seng Yip Furniture in the sawmilling section of this issue
- The CLT pilot project
- Sustainably Managed Forests in Sabah
- Sapulut Forest Development and its road to MTCS certification

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