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Queensland Government



ACIAR PROJECT FST / 2 0 1 9 / 1 2 8

Overview of Coconut Wood Use in Engineered Wood Products

Coconut and Other Non-Traditional Forest Resources for the Manufacture of Engineered Wood Products (EWP)

INTRODUCTION

Engineered Wood Products (EWPs) are manufactured from timber held together with adhesives and/or connectors that are engineered to enhance strength, stability, appearance and durability. EWPs are usually made to strict specifications and can be produced in a wide range of dimensions to replace solid timber and other materials such as concrete and steel. They are made by joining a number of timber elements together, producing uniform and consistent properties.

KEY FACTS

Advantages of EWPs over Sawn Timber

- ✓ EWPs are manufactured to specific standards resulting in uniform quality.
- ✓ EWPs can be designed to be stronger and more stable than sawn timber.
- ✓ Ability to use low grade wood and small size pieces.
- ✓ Greater selection of product dimensions which can be customised.
- ✓ The manufacturing process for EWPs maximises the use of raw materials leading to less waste.
- ✓ EWPs are typically easier to cut and shape being more user friendly for construction projects

KEY FACTS

Coconut Wood use in EWPs

Coconut wood and cocoveneer can be processed into various engineered wood products such as:

- ✓ Plywood for use in furniture, flooring, wall panelling and possibly formply.
- ✓ Laminated Veneer Lumber offering high strength beams and headers.
- ✓ Glulam – glue laminated components engineered for strong support in construction.
- ✓ Medium-Density Fibreboard made from ground coconut wood mixed with adhesives for use in decorative applications.
- ✓ Multilaminar wood used for decorative purposes.



Fig. 1. Sawn coconut wood can be incorporated into EWPs such as laminated veneer lumber.



Fig. 2. Cocoveneer can be incorporated into EWPs such as plywood and LVL.

COCONUT WOOD USE IN ENGINEERED WOOD PRODUCTS

Coconut wood (and cocoveneer) is gaining popularity in engineered wood products due to its durability, strength (of high to medium density wood) and unique aesthetic appeal.

COCONUT WOOD IN USE

Engineered Flooring

Based on the reported density and visual appearance (especially for mid- and high-density boards and veneers) coconut wood is considered very suitable for flooring. Tongue and groove (T&G) flooring design means thin non-structural sawn sections can be used in a decorative way.



Fig. 3. Engineered cocowood T&G flooring combining sawn coconut wood and plywood being installed.

Structural LVL and Plywood

While not as strong as some hardwoods coconut wood can be engineered to enhance its load bearing capacity for structural applications such as plywood formwork or LVL beams.



Fig. 4. Structural cocoveneer EWP: plywood (left) and LVL (right).

Furniture and Decorative Items

Coconut wood offers a blend of sustainability, beauty, and functionality making it a great choice for furniture and decorative items. Coconut wood is culturally significant adding a unique touch to decorative items and crafts.



Fig. 5. Cocowood used in furniture, a decorative board and a drink coaster.