PRODUCTION OF LIGHTWEIGHT FIBREBOARD (LDF) FROM CO-REFINED RUBBERWOOD-KENAF CORE ADMIXTURE

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INTRODUCTION OF TECHNOLOGY

Kenaf (*Hibiscus cannabinus* L.) is a low density lignocellulosic material with two distinct layers: outer bast and inner woody core. The core makes up 60 to 75% of the stem weight, light and porous, with a bulk density of 0.10–0.20 g/cm^3. These properties make kenaf core an excellent material to be combined with the existing rubberwood, the main wood species used in medium density fibreboard (MDF) manufacture. The lightness of kenaf core provides the volume-compaction necessary for any lightweight wood panels.

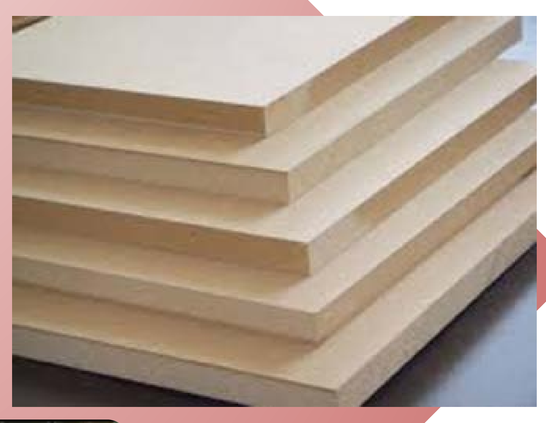
Figure 29 : Green chips of kenaf before air dry process

Kenaf core chipping and screening

Rubberwood chips

Co-refining rubberwood-kenaf core

Lightweight fibreboard (LDF)



INVENTION

The invention relates to a development of low-density fibreboard (LDF) from rubberwood-kenaf core admixture. The LDF panel has density of <550kg/m^3, having a light and strong properties comparable to those of commercial MDF of density 700kg/m^3. The present invention is able to refine kenaf and rubberwood together (i.e. co-refining), such that it is adapted to provide homogeneous fibre mixture that is able to improve the board properties.

MARKET POTENTIALS

MDF Manufacturers

Furniture industy

Kenaf fibre processing mills

New export market

The project is in collaboration with;

ADVANTAGES

- **Shorter refining time.**
- Better fibre size distribution.
- Highly compacted material with high strength at lower density.
- Reduce the thickness swelling of the board.
- No wax addition.

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