

Sumitomo Forestry Affiliate P.T. Rimba Partikel Indonesia
Begins Labeling Particle Board Products with Carbon Footprint Mark
– Disclosing greenhouse gas emissions from logging to manufacturing –

In October 2009, P.T. Rimba Partikel Indonesia (RPI; Representative Director: Satoshi Kawanami), an Indonesian affiliate of Sumitomo Forestry Co., Ltd. (Head office: Chiyoda-ku Tokyo; President and CEO: Ryu Yano) engaged in the manufacture and sale of wood building materials in Indonesia, will begin labeling its particle board (PB) products with a carbon footprint¹ mark and become the first Indonesian firm to use carbon footprint labeling.

In FY 2006, Sumitomo Forestry began conducting Sumitomo Forestry Group life cycle assessments (LCAs)² in collaboration with the Tokyo University of Agriculture and Technology and has been moving forward with efforts to identify the levels of greenhouse gas (GHC) emissions from raw materials procurement to the manufacturing stage for each of its products. LCAs were performed for the domestic plywood products manufactured by a wholly owned subsidiary, Sumitomo Forestry Crest Co., Ltd. (Head office: Chiyoda-ku Tokyo; President and CEO: Toshio Yasuda) and then for the PB products produced by RPI. This provided useful GHC emission data for RPI's PB products from the logging to manufacturing stages, thus paving the way for carbon footprint labeling.

The PB products manufactured by RPI are eco-friendly in that they effectively utilize woodland residual and scrap wood together with lumber from the company's own managed forestlands. RPI adopted wood biomass power generation technologies in 2008. That shift enabled it to begin producing its PB products through manufacturing processes using clean energy with low CO₂-emission, earning it a CDM project³ accreditation from the UN Clean Development Mechanism (CDM) Executive Board. The LCA findings revealed that wood biomass power generation enabled the company to reduce its CO₂ emissions per cubic meter of PB by 51.7 kg compared to life-cycle

¹ Carbon footprint: A simplified unit of measure that expresses in terms of amounts of CO₂ the volume of greenhouse gases emitted over the entire life cycle (from the procurement of raw materials to their disposal or recycling) of a given product or service.

² Life cycle assessment (LCA): An analytical method that comprehensively assesses the environmental impact at every stage of the life cycle for a given product or service, from raw materials procurement and manufacture to shipping, sale, utilization, recycling, and final disposal.

³ CDM project overview

RPI earned CDM project accreditation from the UN CDM Executive Board in May 2008. It is the first wood biomass power generation CDM project in Indonesia to generate power using wood chips and sawdust from surrounding lumber mills. This CDM project replaced existing diesel powered generators with a 4-megawatt capacity wood biomass power generation facility that will enable the company to sharply reduce its power generation-derived CO₂ emissions from 14,900 tons to 200 tons per year.

CO₂ (LC-CO₂)⁴ emission levels measured prior to the adoption of wood biomass power generation. RPI is striving to cut CO₂ emissions even further than the baseline data displayed in its carbon footprint labeling. Although the labeling practice is voluntary, the company plans to devote study to the idea of utilizing the carbon footprint framework now being advocated for future market entrants.

⁴ Life-cycle CO₂: Expressed in units of CO₂, this is a measure of the total in environmental greenhouse gas emissions over the life cycle of a given product, from its manufacture and consumption or utilization to final disposal.

Reference

1. The Carbon Footprint Mark Used in RPI Labeling

As a label displaying a quantity of greenhouse gas emissions, the mark has been designed around a readily understandable "CO₂" symbol incorporating a motif of cypress trees, a domestic forest resource widely utilized by the Sumitomo Forestry Group. This is the same mark that was initially imprinted on domestic plywood sheets manufactured by the Komatsushima mill of Sumitomo Forestry Crest Co., Ltd. (a wholly owned subsidiary) and also will be the mark used by all Sumitomo Forestry Group companies that adopt voluntary carbon-footprint labeling. The "156.8 kg" in the sample mark represents total emissions of greenhouse gases per cubic meter of particle board from the logging to manufacturing stages, converted and expressed in units of CO₂. This quantity will be revised each year.

2. Reduced CO₂ Emissions through the Use of Wood Biomass Power Generation

In 2008, RPI switched over to wood biomass power generation, thus enabling it to begin manufacturing its particle board products with manufacturing processes that rely on clean energy and emit low levels of CO₂. This shift resulted in an approx. 25 percent reduction in LC-CO₂ emissions compared to levels measured prior to the adoption of wood biomass power generation.

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CO₂ Emissions (kg CO₂ equivalents/ton)

Before biomass power generation (Note 1)

Following shift to biomass power generation (Note 1)

Reference: PB average for Japan (Note 2)

Raw Materials Procurement

Raw Materials Shipment

Particle Board Manufacture

Notes

1. For the purposes of comparison, density (0.68 g/cubic centimeter) was expressed in tons per cubic meter.

2. Source: Presentation abstracts for the 2nd Meeting of the Institute of Life Cycle Assessment, Japan (March 2007).

3. RPI Profile

Company Name: P.T. Rimba Partikel Indonesia

Location: Kendal Regency, Central Java Province, Republic of Indonesia

Founded: June 1990

Paid-in Capital: US\$12 million

Representative Director: Satoshi Kawanami

Business Lines: Particle board manufacture and sales

Production Volume: 112,671 cubic meters per year (2008 results)

Certifications

June 2003 - ISO 9001 (2000) Quality Management Systems Certification

Oct. 2005 - ISO 14001 (2004) Environmental Management Systems Certification

March 2007 - JIS Mark JIS A 5908 (2003) Certification

Note

RPI is a large particle board (PB) manufacturer based in central Java, Indonesia. It produces homogenous particle board using scrap wood sourced from nearby lumber mills and commands a significant share of the domestic Indonesian market. In addition to earning JIS certification and demonstrating the high quality of its products, with its adoption of carbon footprint labeling, RPI hopes to differentiate itself from its rivals and further solidify its business base.

4. Particle Board

(1) What is it?

Particle board is a pressed and formed composite of wood particles (including saw mill chips, flakes, wafers, and strands) that have been mixed together with a synthetic resin binder.

(2) Principal applications

For shelves and shelving, flooring, furniture core layers, speaker cabinets, etc.