

ENVIRONMENTAL DECLARATION

Declaration is based on lifecycle inventory (LCI) assessment
ISO 14025, ISO 14040 and ISO 14044

Valid until 31.07.2011

Kerto laminated veneer lumber, Metsäliitto Cooperative Finnforest

Product

Product names



Main service (building element and consumption). Primary application - beam structures, pillar and board structures

Composition: Wood and adhesive

K-value (overall coefficient of heat transfer)

Qualifications and restrictions

Product values according to EC-Certificates of conformity 0809-CPD-0505 and 0809-CPD-0506. Type approval numbers in Finland: Kerto-S 75/6121/95, Kerto-Q 18/6121/95, Kerto-T 9/6121/95. Instructions for use comply with requirements for EC 5 stress. The adhesive shall be pure phenolic resin and powder hardener Dynea Chemicals Oy's Prefere 25J648 or 25J687 or equivalent, which do not contain chlorine or heavy metals.

Service life

Expected service life: Over 50 years

Energy and raw materials

Non-renewable energy	6.5	MJ/kg
Renewable energy	8.3	MJ/kg
Non-renewable raw materials	0.09	kg/kg
Renewable raw materials	2.05	kg/kg

Emissions

Greenhouse gases (CO ₂ equ/kg)	295	g/kg
CO ₂ content	1 651	g/kg
Emissions causing acidification (SO ₂ equ/kg)	1.3	g/kg
Emissions causing oxidants (g ethane equ/kg)	0.63	g/kg

Impact on indoor climate

No impact

Classification of finishing materials (M1, M2 or M3) M1

Recycling

Product recycling

Can be sorted during disassembly into material for burning to produce energy.

Product's energy content as fuel 19.4 MJ/kg

Burning

When provided that correct combustion conditions are maintained, pure phenol-glued Kerto-LVL products can be safely destroyed by burning. The burning temperature shall be over 850 °C, the combustion air and –gases well mixed, the retention time of the combustion gases in the furnace over 2 seconds, and the residual oxygen content of the flue gases over 6 %.

Status of information

The subject of this report was the manufacture of Metsäliitto Cooperative Finnforest, Kerto laminated veneer lumber. The data for the review period is extracted from information for 2005. The result is stated for 1 kg of Kerto laminated veneer lumber packed at the humidity at delivery. The report is based on the information on material and energy flows provided by Metsäliitto Cooperative Finnforest, Kerto. The review includes the procurement of raw materials, transport, manufacture of the product and transportation of the product. Data on the adhesive used in Kerto laminated veneer lumber was based on information provided by the manufacturer of the adhesive (2005). Data on the plastic used as packing material (PE-LD and PE-HD) is based on the literature (I. Boustead, 1993). Data on the metal bands is based on the information for Fundia's reinforcing steel for concrete (factoring in its manufacture from scrap, transport and rolling).

References

Boustead I. 1993. Eco Profiles of the European Plastic Industry. Report 3: Polyethylene and Polypropylene. PWMI. Brussels. 20 p.

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