ENVIRONMENTAL DECLARATION

26.22 Plywoods (Talo 2000)

Valid until **12 June 2013**
N:o **35**

Standard Conifer Plywood

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PUUINFO

1. PRODUCT SPECIFICATION

Object definition

This RT Environmental Declaration applies to the standard conifer plywood. The plywood is manufactured in the following factories:

- Metsäliitto Cooperative, Wood products industry: Suolahti plywood mill
- UPM-Kymmene Wood: Jyväskylä and Pellos plywood mills

Product description

The standard conifer plywood consists of coniferous veneer and glue (mainly phenol formaldehyde).

Photo: Metsäliitto Cooperative

Conversion factors

Unit weight	450 kg/m^3
Weight per square metre	4.1–13.8 kg/m^2
Humidity	9%

Technical properties

Areas of application: Concrete formwork systems, packaging, buildings
Veneer thickness is 2.6–3.2 mm. The standard conifer plywood is a board for general construction applications used when the high strength of birch plywood is not required. Coniferous plywood is also used as a raw material in the packaging industry.

- Gluing: Phenol formaldehyde glue according to EN 314-2 / Class 3 exterior (DIN 68705 Teil 3: BFU 100; BS 6566 Part 8: WBP).
- Quality grades of the top veneer: See RT card RT 22-10731 for more information.
- Thicknesses and weights: Thickness 9 .. 30 mm; weight approximately 4.1–13.8 kg/m^2
- Standard sizes (the first dimension is in the direction of the top veneer): 2,400/2,440/2,500 x 1,220/1,250 mm
- Strength: According to Handbook of the Finnish plywood

RT-Environmental declaration is based on the national methodology following the basic principles stated in the ISO standard series 14040 and 14020. The method considers also the preliminary results achieved within ISO CD 21930. It is developed in cooperation with Confederation of Finnish Construction Industries RT, The Building Information Foundation RTS, VTT Technical Research Centre of Finland and companies of construction business.

RAKENNUSTIETO

2. ECO-PROFILE OF THE PRODUCT

The eco-profile includes the life cycle stages from the acquisition of raw materials to the factory gate

2.1 USE OF RESOURCES

Energy

Use of energy	MJ/kg
Non-renewable energy resource consumption	10
Renewable energy resource consumption	2
Energy resource consumption in processes + transport	12

Energy in transport *	MJ/kg
Energy resource consumption in transports	Not specified

Energy in processes *	MJ/kg
Electric energy resource consumption	Not specified
Fossil energy resource consumption	Not specified
Biotic energy resource consumption	Not specified
Total energy resource consumption in processes	Not specified

Feedstock energy of raw materials*	MJ/kg
Fossil feedstock energy in raw materials	0.61
Biotic energy in raw materials	0.027
Total feedstock energy of raw materials	0.64

**Voluntary*

Raw materials

Consumption of raw materials	g/kg
Non-renewable natural materials	24.2
Renewable natural materials	998
Hidden material flows	Not specified
Total consumption of raw materials	1,022.2

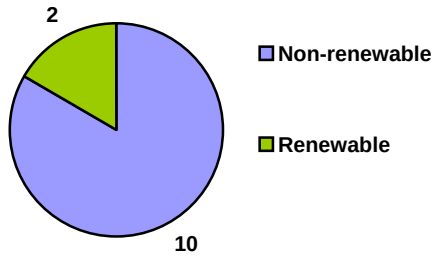
2.2 EMISSIONS

Emissions to air	g/kg
CO_2	560
CO	1.0
SO_2	1.8
NO_x	2.2
CH_4	1.8
N_2O	1.5×10^{-3}
NMVOC	0.69
PM_{10}	1.2
Heavy metals*(Hg, Cd, Pb, As, Cr, Zn, Ti)*	0.23×10^{-3}
Dust	77×10^{-3}
Other particles	

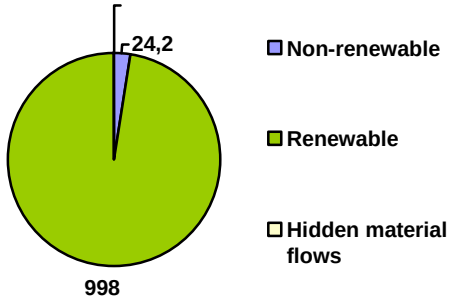
Emissions to water	g/kg
COD	0.37
BOD	0.68
P_{tot}	4.0×10^{-3}
N_{tot}	8.0×10^{-3}
Solids	0.12

Process waste	g/kg
Waste to dumping area	1.3
Hazardous waste	0.46

Energy in processes and transport
MJ/kg



Consumption of raw materials g/kg



3. OTHER ENVIRONMENTAL ASPECTS

CONSTRUCTION
- Transportation
- Spillage on site
- Emissions to indoor air

- The plywood products that belong to the emission class M1 are listed on the Building Information Foundation RTS Internet site at www.rts.fi.

RISKS

SERVICE LIFE

SERVICE AND MAINTENANCE

FINAL DISPOSAL

Recycling

- Intact board in good condition can be recycled as a board product or incinerated in a suitable boiler.

Energy use

- Can be utilised as energy.
- Gross heating value 20 MJ/kg.

Waste treatment

- Deposition and quality: Can be deposited in a landfill.

ADDITIONAL INFORMATION

- Plywood contains stored carbon equivalent to 1708 g CO_2/ kg standard conifer plywood.
- Plywood manufacturers employ certification systems guaranteeing that the raw material is acquired from forests managed according to sustainable forest management.