

# Environmental Product Declaration



In accordance with ISO 14025 and EN 15804 +A1 for:

**Raw birch plywood** (Riga Ply)

**Overlaid birch plywood** (Riga Form, Riga Tex, Riga Heksa Plus, Riga Heksa, Riga Mel, Riga Preprime, Riga Diamond, Riga Dot, Riga Force, Riga Superwire, Riga Timber, Riga Foot, Riga Frost, Riga Paint, Riga Rhomb, Riga Smooth Mesh, Riga Trans)

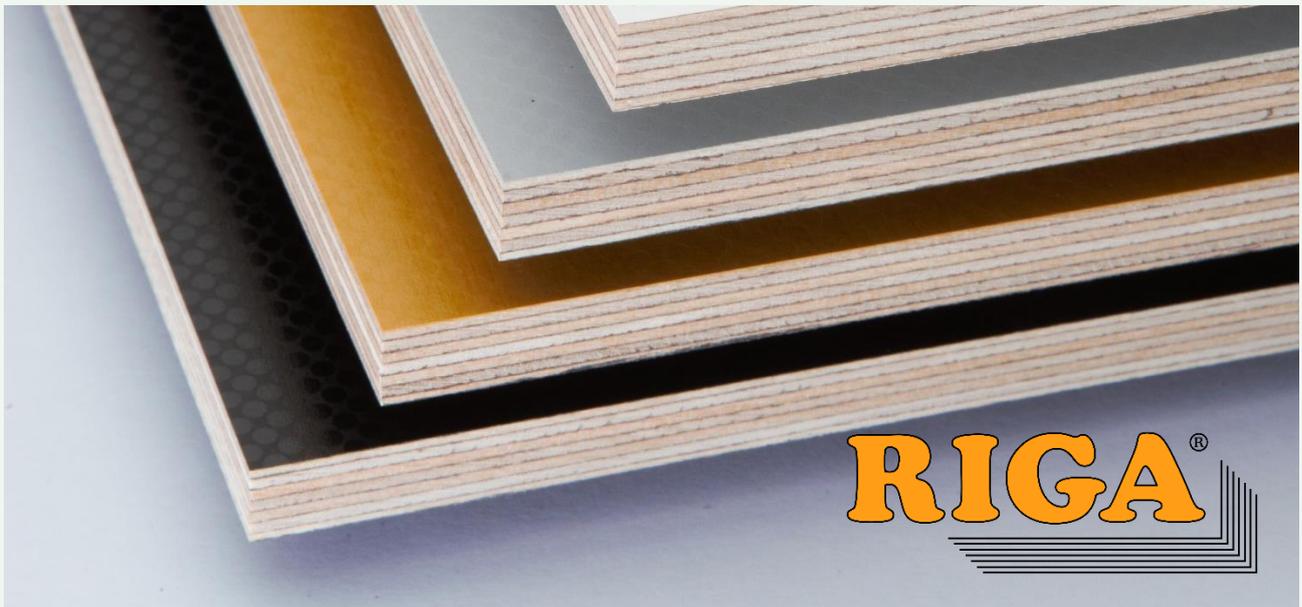
**Birch Plywood with special overlay and composite construction**

(Riga Color, Riga Composite, Riga Decor, Riga HPL, Riga Lacquer, Riga Poliform, Riga Prime, Riga Silent)

from:

**AS Latvijas Finieris**

Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-02274
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## Programme information

<b>Programme:</b>	<p>The International EPD® System</p> <p>EPD International AB Box 210 60 SE-100 31 Stockholm Sweden</p> <p><a href="http://www.environdec.com">www.environdec.com</a> <a href="mailto:info@environdec.com">info@environdec.com</a></p>
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<p>Product category rules (PCR): <i>PCR 2012:01 Construction products and construction services, Version 2.31</i> <i>Sub-PCR-E to PCR 2012:01: Wood and wood-based products for use in construction, Version 2019-12-20, UN CPC 031, 311-316, 319</i></p>
<p>PCR review was conducted by: The Technical Committee of the International EPD® System. The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a>.</p>
<p>Independent third-party verification of the declaration and data, according to ISO 14025:2006:</p> <p><input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification</p>
<p>Third party verifier: <i>Camilla Landén and Anders Nordenlöf at Bureau Veritas Certification Sweden</i></p> <p>Approved by: SWEDAC, Swedish accreditation body.</p>
<p>Procedure for follow-up of data during EPD validity involves third party verifier:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.



## Company information

### Owner of the EPD

AS Latvijas Finieris (Address: Bauskas street 59, Riga LV-1004, Latvia; Phone: +371 67067207; E-mail: info@finieris.lv; web: www.finieris.com)

### Description of the organisation

AS Latvijas Finieris is a closed joint stock company. Together with numerous subsidiary companies it forms multi-sectoral Latvijas Finieris Group. The key operational areas of Latvijas Finieris are production and sales of birch plywood under the brand RIGA, development of new birch plywood products and supply of related services. Our birch veneer and plywood production facilities are located in Latvia, Lithuania, Estonia and Finland.

Other key activities of the Group include birch nursery and planting, forestry and logging, production of synthetic resins, phenol films and wood-plastic composite overlays, as well as purchase and distribution of complementary panel products. We are also active in machinery manufacture. Overall, the Group provides work to an average of 2,500 people a month.

#### Our Vision:

To be the global leader of performance oriented birch plywood based product solutions.

#### Our Mission:

To enable customers, forest owners, cooperation partners, employees and other stakeholders of the company to develop long-term partnership: responsible work, responsible profit and responsible investments.

#### Our Conviction:

Plywood products are and will remain among the most beneficial industrial uses of birch wood, at the same time other birch based products will play increasing role in bioeconomy development.

#### Our Values:

SAFETY. We create a safe environment and act in a sustainable manner.

RESPECT. We respect each other and promote honesty, loyalty and mutual trust

DEVELOPMENT. We strive for self-improvement and encourage the growth of others

LEADERSHIP. We are the owners of our work, we take initiative to get job done.

#### Latvijas Finieris Around the World:

The origins of Latvijas Finieris can be traced back to the small woodworking factory established in 1873 where the production of plywood was launched for the first time in Latvia in 1909 using a hydraulic press. Today our products are sold in more than 60 countries, providing high-quality, service and tailored technology solutions to customers. Network of 12 fully owned Riga Wood product development and sales offices cover whole Europe and key markets Overseas. This enables our customers to have direct and professional contacts with our product development.

Latvijas Finieris Group core competence is birch based products, mainly excellence in birch plywood production. We are convinced that plywood production is and will remain one of the most beneficial industrial uses of birch wood, still presenting considerable development opportunities – in the nearest future this will ensure our core business profitability. However, the growing potential of bioeconomy calls for active and regular assessment of other birch based products and wood products in general – their technological and commercial readiness to fully utilise Latvijas Finieris Group core competence in birch



products and learn new ones. Active and ongoing marketing, sales & product development processes are a key factor for our success.

Compliance with EU Regulations. Product related certifications:

Regulation – Certification - Standard	
Class E1 EN 13986+A1	V
CARB Phase 2 and EPA TSCA Title VI	On request
EU REACH Regulation 1907/2006	V
EU RoHS Directive 2011/65/EC	V
EU Construction Products Regulation 305/2011 CE 2+; CE 4	Structural use
EU Timber Regulation 995/2010	V
FSC wood supply chain	On request
PEFC wood supply chain	On request

Birch plywood RIGA contributes toward satisfying Credit IEQ 4.4 under LEED®

It meets the testing requirements and is found compliant with the requirements of both - the US Environmental Protection Agency Toxic Substances Control Act (TSCA) Title VI and the California Air Resource Board (CARB) Airborne Toxic Control Measure (ATCM) Final Regulation Order (FRO) § 93120.2 (a) table 1.

Birch plywood RIGA is manufactured from timber with only legal origin and complying with sustainable forest management principles. It can be ordered and supplied as FSC® and PEFC® certified product contributing toward the MR 7 certified wood credit for LEED project works.

## Name and location of production sites

Birch veneer mills:

- Likmere in Ukmergė, Lithuania (A1)
- Sastamala mill in Sastamala, Finland (A1)

Birch plywood mills:

- Lignums in Riga, Latvia (A3)
- Furniers in Riga, Latvia (A3)
- Verems in Rezekne county, Latvia (A3)
- Kohila Veneer in Kohila, Estonia (A3)

Birch plywood further processing units:

- Hapaks in Riga, Latvia (A3)
- Troja in Riga, Latvia (A3)



## Product information

### Raw birch plywood

Riga Ply. Birch plywood sanded on both the faces and made of 1.4 mm peeled veneer using phenol-formaldehyde resin based glue. Plywood is composed of 1.4 mm thick veneers by cross bonding (customised constructions can also be made). Riga Ply is the basis for all other types of RIGA plywood products. Riga Ply has a wide range of application for interior and exterior use: building and construction, transport, packaging, furniture, joinery, sports equipment, children toys etc.

### Overlaid birch plywood

Riga Form. Birch plywood (Riga Ply) bonded with waterproof phenol resin adhesive and overlaid on both the faces with a phenol film or with UV resistant film. Applications: shuttering (dark brown, red films), transport industry, building and construction, flooring, inter-wall structures in farms, advertisement and information panels.

Riga Tex. Birch plywood (Riga Ply) overlaid with a film on both the faces. The wear face has a rough wire mesh pattern; the reverse normally is smooth, although it can have wire mesh pattern, too. Riga Tex rough wire mesh overlay withstands hard wear and it can be used for many different floor-panelling purposes. The wire mesh surface has high wear resistance and anti-slip properties, surface is weather- and water-proof, resists to commonly used chemicals.

Riga Heksa. Birch plywood (Riga Ply) overlaid with a phenol (dark brown) or an UV resistant (grey) film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: flooring, transport industry, pedestrian bridges, storage and factory floors, storage shelves, loading platforms, pier surfaces, scaffoldings, ship decks, shop fitting and flight cases. In general - surfaces where high wear resistance is required.

Riga Heksa Plus. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: flooring, transport industry, pedestrian bridges, storage and factory floors, storage shelves, loading platforms, pier surfaces, scaffoldings, ship decks, shop fitting and flight cases. In general - surfaces where high wear resistance is required.

Riga Mel. Birch plywood (Riga Ply) overlaid with a white or colorless melamine film on both faces; reverse face can be overlaid with a phenol film. Applications: transport industry (finishing of walls and ceilings); furniture components and table tops, shop fitting and exhibition stands and booths, advertisement and information boards.

Riga Preprime. Birch plywood (Riga Ply) overlaid on one or both faces with a preprimed painting film ready for painting, without further priming or other preparations. Applications: walls, ceilings, surfaces of furniture, front doors to be painted, lorries, factory rooms, containers, household, trailer side boards, traffic signs, information and advertising boards.

Riga Diamond. Birch plywood (Riga Ply) overlaid with a phenol or an UV resistant film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: transport industry (floor of trailers, vans, buses, containers), children playgrounds, loading platforms, exhibition stands. In general - surface where high wear resistance and pleasant visual appearance are required.



Riga Dot. Birch plywood (Riga Ply) overlaid with a phenol, UV resistant or melamine film on both faces. The wear face has a special surface pattern that gives dot effect. The reverse face usually is smooth. Applications: transport industry, finishing of walls and ceilings, industrial furniture (components, shelving system and table tops, shop fitting, exhibition stands, booths, advertisement and information boards).

Riga Force. Birch plywood (Riga Ply) overlaid with a black glass fiber on one face and with a black phenol film on reverse face. The glass fiber face has a special pattern. The film is available in black colour as well as the edge sealing paint.

Riga Superwire. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: transport industry: floor of trailers, vans, buses, containers, children playgrounds, loading platforms, exhibition stands. In general - surface where high wear resistance and pleasant visual appearance are required.

Riga Timber. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: transport industry, finishing of walls and ceilings, industrial furniture: components, shelving system and table tops, shop fitting, exhibition stands.

Riga Foot. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: flooring, transport industry, storage and factory floors, storage shelves, loading platforms, pier surfaces, scaffoldings, playgrounds, and flight cases. In general - surfaces where high wear resistance, anti-slip properties and good visual appearance are required.

Riga Frost. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern that gives mat surface effect. The reverse face usually is smooth. Applications: transport industry, finishing of walls and ceilings, industrial furniture: components, shelving system and table tops, shop fitting, exhibition stands, booths, advertisement and information boards, children playgrounds, interior walls.

Riga Paint. Birch plywood (Riga Ply) overlaid with a painting film on the wear face or both the faces, providing a panel surface suitable for painting. Riga Paint plywood does not crack during interior and exterior application. Applications: walls, ceilings, surfaces of furniture, front doors to be painted, lorries, factory rooms, containers, household, trailer side boards, traffic signs, information and advertising boards.

Riga Rhomb. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a special surface pattern. The reverse face usually is smooth. Applications: in transport industry for floors and walls, storage and factory floors, storage shelves, loading platforms, pier surfaces, and scaffoldings. In general - surfaces where high wear resistance and anti-slip properties are required.

Riga Smooth Mesh. Birch plywood (Riga Ply) overlaid with a film on both faces. The wear face has a smooth wire mesh pattern; the reverse normally is smooth, although it can have wire mesh pattern, too. Riga Smooth Mesh wire mesh overlay is decorative and resists hard wear. Applications: for walls and applications where high wear resistance and/or decorativeness is required.

Riga Trans. Birch plywood overlaid with a dark brown phenol on both faces. The wear face film has a special surface pattern, the reverse face being smooth. The specific end-use of Riga Trans is truck and trailer flooring. The other possible applications include: storage and factory floors, storage shelves, loading platforms, pier surfaces, scaffoldings, playgrounds and flight cases. In general – surfaces where high wear resistance, good anti-slip properties and pleasant visual appearance are required.



## Birch Plywood with special overlay and composite construction

Riga Color. Birch plywood (Riga Ply or Riga Paint) with either one face or both faces painted for interior applications: walls, ceilings, stands, furniture, packaging for interior use.

Riga Composite. Birch plywood (Riga Ply) overlaid on one or both faces with a special material or such a material is used as a core to improve mechanical properties or visual appearance of plywood. Further mechanical processing, board and edge sanding and lacquering is available, also manufacturing of furniture elements.

Riga Décor. Birch plywood (Riga Ply) veneered on one or on both faces. Applications: all sectors of furniture industry, joinery - production of furniture and doors, construction, panelling.

Riga HPL. Birch plywood (Riga Ply) overlaid with HPL (High Pressure Laminate) on one or both faces. On the reverse face balance paper can be applied. Applications: furniture industry (kitchen and laboratory furniture components and worktops; furniture for shops), transport industry and construction (finishing works of walls and ceiling, surfaces where high wear resistance and appearance are required).

Riga Lacquer. Birch plywood (Riga Ply), which is varnished on one or on both faces for interior applications: walls, ceilings, stands, working surfaces, furniture.

Riga Poliform. Birch plywood (Riga Ply) overlaid with a special composite material on both faces. Applications: high quality formwork systems.

Riga Prime. Birch plywood (Riga Ply or Riga Paint) overlaid with a primer on one or both faces, thus plywood surface is ready to be painted. It facilitates painting operations and requires less paint. Riga Prime can be used as painted as well as unpainted for floors, walls, and ceilings, as packing material and in the manufacture of components of various sizes and shapes.

Riga Silent. Birch plywood with 2 or 3 mm cork-rubber composite material used as the core to improve acoustic properties and protection against noise and to damp vibration. Applications: floors and walls where sound insulation and vibration elimination are required.



## LCA information

### Functional unit / declared unit

Declared unit of 1m<sup>3</sup> of plywood.

### Functional unit / declared unit

No reference service life is relevant due to the scope of the system boundaries.

### Time representativeness for specific data

2018

### Database(s) and LCA software used

Databases: Ecoinvent, ELCD

LCA Software: SimaPro

### Description of system boundaries

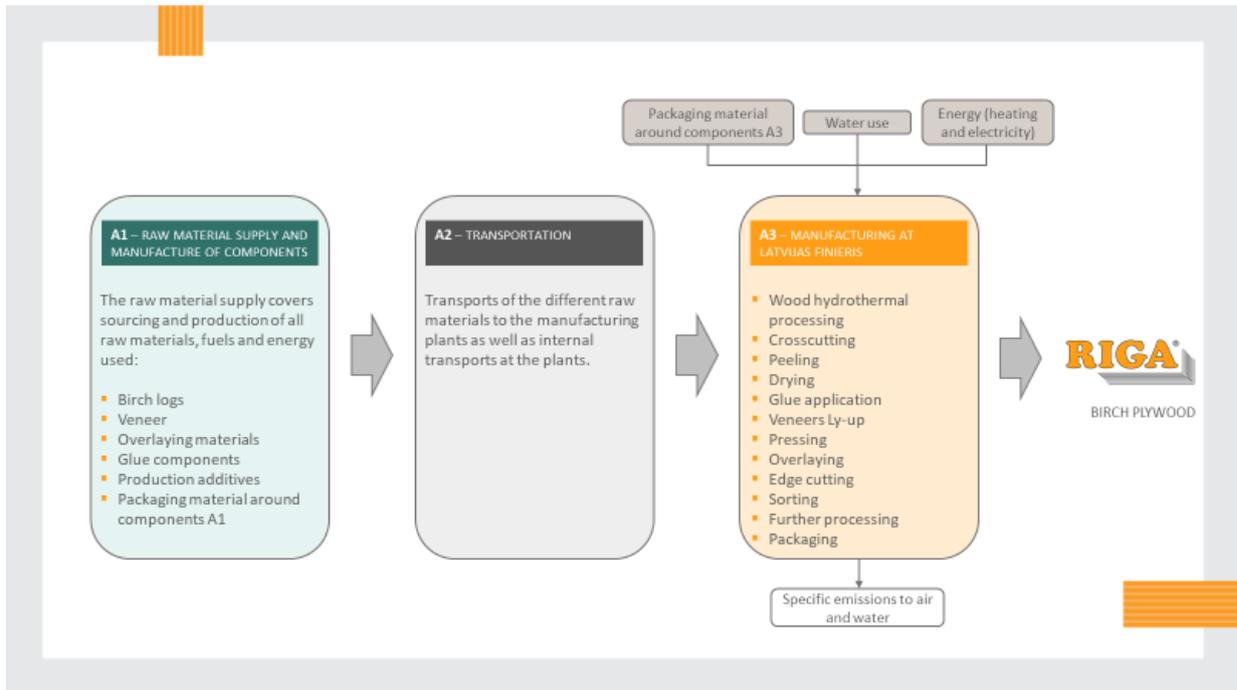
This EPD comprises the Product stage (Cradle-to-Gate) of the LCA

Product stage			Construction / installation stage		Use stage							End of life stage				Benefits and loads beyond the system boundary
Raw material supply	Transportation	Manufacturing	Transportation	Construction / installation / assembly	Use	Maintenance (incl. transportation)	Repair (incl. transportation)	Replacement (incl. transportation)	Refurbishment (incl. transportation)	Operational energy use	Operational water use	De-installation / demolition / disassembly	Transportation	Waste processing	Disposal	Reuse / recovery / recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
x	x	x	MND	MND	MNR	MND	MND	MND	MNR	MNR	MNR	MND	MND	MND	MND	MND

X – included    MNR – not relevant    MND – not declared

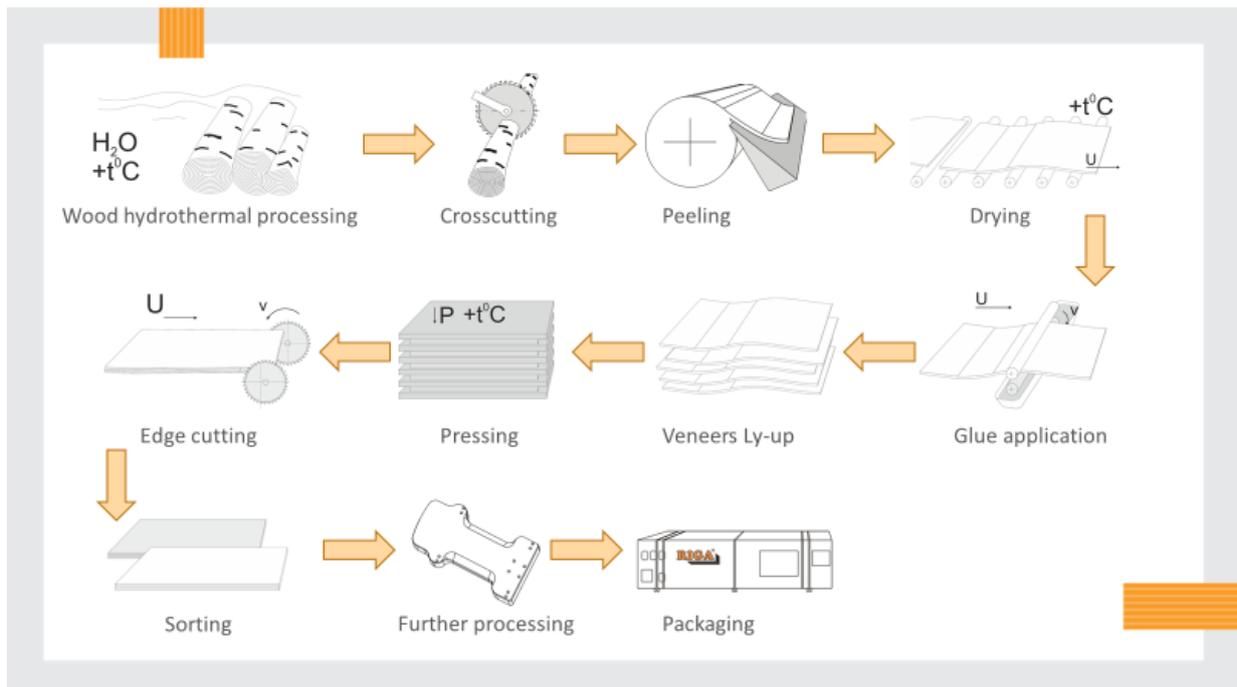


**System diagram**



The product stage of the LCA constitute of modules A1-A3. Module A1 encompasses the extraction and refinement of raw materials as well as production of components by the suppliers of Latvijas Finieris. In some cases (veneer, resin and phenolic film production) the production of the materials in A1 are done close to the site of the manufacturing unit for A3. Transports of the main components, from suppliers to Latvijas Finieris core production unit, are included in the A2 module. The internal transports between the production processes before the core manufacturing processes of A3 is also accounted for in the A2 module.

The box “Manufacturing at Latvijas Finieris” represents the A3 module, where the components of the panel wall are assembled, and the plywood products are produced:



## Content declaration

### Product

#### Composition of PW products included in the Environmental Products Declaration, % (represents all thickness range)

Product structure	Raw Birch Plywood	Overlaid Birch Plywood	Birch Plywood with special overlay and/or composite construction
Wood	90,4	86,9	84,1
Resins	6,4	6,4	6,4
Powder extender - Hardener	2,4	2,4	2,4
Overlays, composite materials	0	3,5	6,3
Other	0,8	0,8	0,8

Release of dangerous substances to indoor air, soil and water

Product Categories Rules PCR 2012:01 9.2.6

Birch plywood under the trade name RIGA® is manufactured by application of chemicals fulfilling requirements of REACH registration, including requirements of REACH Annex XVII "Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles". Regardless of formaldehyde, being significantly below indicated limit values, RIGA® birch plywood does not contain any substances listed in both the REACH Annex for prohibited hazardous substances and the Candidate List of Substances of Very High Concern for Authorization

### Packaging

Distribution packaging: The packaging materials used to transport the materials from the production units of Latvijas Finieris consist of the materials presented in the table below.

Components	Material	Weight (kg/DU Raw Plywood)	Weight (kg/DU Overlaid plywood)	Weight (kg/DU Plywood with special overlay)
Wooden pallet	Wood	14,3	26,8	28,5
Plastic film	Low density polyethylene	0,13	0,24	0,11
Plastic wraps	PET	0,21	0,39	0,1
Paper packaging	Corrugated board box	1,01	1,89	0,16
Steel tape	Steel	0,01	0,02	0,08

### Recycled material

Provenience of recycled materials (pre-consumer or post-consumer) in the product: The plastics, paper and steel waste materials arising from the core production are recycled.

## Environmental performance

### Potential environmental impact for Raw birch plywood

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Global warming potential (GWP)	kg CO <sub>2</sub> eq.	5,00E+02	3,50E+01	2,91E+02	8,26E+02
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.	6,91E-05	6,95E-06	7,28E-06	8,33E-05
Acidification potential (AP)	kg SO <sub>2</sub> eq.	3,28E-01	5,60E-03	1,24E-01	4,58E-01
Eutrophication potential (EP)	kg PO <sub>4</sub> <sup>3-</sup> eq.	2,40E+00	1,13E-01	1,76E+00	4,27E+00
Formation potential of tropospheric ozone (POCP)	kg C <sub>2</sub> H <sub>4</sub> eq.	7,42E-01	2,49E-02	3,66E-01	1,13E+00
Abiotic depletion potential – Elements	kg Sb eq.	1,68E-03	6,80E-05	9,60E-05	1,84E-03
Abiotic depletion potential – Fossil resources	MJ, net calorific value	8,38E+03	5,88E+02	2,28E+03	1,12E+04

### Use of resources for Raw birch plywood

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3	
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	4,70E+04	9,91E+00	6,24E+02	4,76E+04
	Used as raw materials	MJ, net calorific value	1,20E+04	0,00E+00	0,00E+00	1,20E+04
	TOTAL	MJ, net calorific value	5,90E+04	9,91E+00	6,24E+02	5,96E+04
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	8,83E+03	6,05E+02	2,33E+03	1,18E+04
	Used as raw materials	MJ, net calorific value	9,20E+00	0,00E+00	0,00E+00	9,20E+00
	TOTAL	MJ, net calorific value	8,84E+03	6,05E+02	2,33E+03	1,18E+04
Secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Net use of fresh water	m <sup>3</sup>	3,65E+02	9,01E+01	0,00E+00	1,42E+02	

## Potential environmental impact for Overlaid birch plywood

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Global warming potential (GWP)	kg CO <sub>2</sub> eq.	1,01E+03	2,49E+00	1,79E+01	1,03E+03
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.	8,88E-05	1,19E-06	1,01E-06	9,10E-05
Acidification potential (AP)	kg SO <sub>2</sub> eq.	5,30E-01	1,51E-03	1,19E-02	5,43E-01
Eutrophication potential (EP)	kg PO <sub>4</sub> <sup>3-</sup> eq.	5,01E+00	3,62E-02	1,59E-01	5,21E+00
Formation potential of tropospheric ozone (POCP)	kg C <sub>2</sub> H <sub>4</sub> eq.	1,35E+00	4,01E-03	3,49E-02	1,39E+00
Abiotic depletion potential – Elements	kg Sb eq.	2,10E-03	1,41E-06	9,20E-06	2,11E-03
Abiotic depletion potential – Fossil resources	MJ, net calorific value	1,25E+04	1,00E+02	2,21E+02	1,28E+04

## Use of resources for Overlaid birch plywood

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3	
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	4,84E+04	7,75E-01	5,92E+01	4,85E+04
	Used as raw materials	MJ, net calorific value	1,18E+04	0,00E+00	0,00E+00	1,18E+04
	TOTAL	MJ, net calorific value	6,02E+04	7,75E-01	5,92E+01	6,03E+04
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	1,31E+04	1,02E+02	2,24E+02	1,34E+04
	Used as raw materials	MJ, net calorific value	1,83E+01	0,00E+00	0,00E+00	1,83E+01
	TOTAL	MJ, net calorific value	1,31E+04	1,02E+02	2,24E+02	1,34E+04
Secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Net use of fresh water	m <sup>3</sup>	3,65E+02	2,33E+02	0,00E+00	4,93E+01	

## Potential environmental impact for Birch Plywood with special overlay and composite construction

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Global warming potential (GWP)	kg CO <sub>2</sub> eq.	1,73E+03	1,48E+00	2,21E+00	1,73E+03
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.	1,53E-04	4,16E-07	2,52E-07	1,54E-04
Acidification potential (AP)	kg SO <sub>2</sub> eq.	3,58E-03	2,67E-06	5,00E-06	3,59E-03
Eutrophication potential (EP)	kg PO <sub>4</sub> <sup>3-</sup> eq.	2,21E+04	3,49E+01	2,97E+01	2,22E+04
Formation potential of tropospheric ozone (POCP)	kg C <sub>2</sub> H <sub>4</sub> eq.	3,58E-03	2,67E-06	5,00E-06	3,59E-03
Abiotic depletion potential – Elements	kg Sb eq.	2,21E+04	3,49E+01	2,97E+01	2,22E+04
Abiotic depletion potential – Fossil resources	MJ, net calorific value	3,58E-03	2,67E-06	5,00E-06	3,59E-03

## Use of resources for Birch Plywood with special overlay and composite construction

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3	
Primary energy resources – Renewable	Use as energy carrier	MJ, net calorific value	9,08E+04	4,20E-01	1,13E+02	9,09E+04
	Used as raw materials	MJ, net calorific value	9,96E+03	0,00E+00	0,00E+00	9,96E+03
	TOTAL	MJ, net calorific value	1,01E+05	4,20E-01	1,13E+02	1,01E+05
Primary energy resources – Non-renewable	Use as energy carrier	MJ, net calorific value	2,32E+04	3,56E+01	3,35E+01	2,33E+04
	Used as raw materials	MJ, net calorific value	2,20E+00	0,00E+00	0,00E+00	2,20E+00
	TOTAL	MJ, net calorific value	2,32E+04	3,56E+01	3,35E+01	2,33E+04
Secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Net use of fresh water	m <sup>3</sup>	3,65E+02	0,00E+00	6,20E-01	6,20E-01	

## Waste production and output flows

### Waste production for Raw birch plywood:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Hazardous waste disposed	kg	8,31E-02	2,88E-04	1,94E+00	2,02E+00
Non-hazardous waste disposed	kg	1,47E+02	4,91E+01	1,42E+01	2,10E+02
Radioactive waste disposed	kg	3,14E-02	4,01E-03	1,43E-03	3,68E-02

### Output flows for Raw birch plywood:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	2,60E-03	0,00E+00	1,62E+00	1,62E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00

### Waste production for Overlaid birch plywood:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Hazardous waste disposed	kg	2,07E+00	3,61E-05	2,24E-01	2,29E+00
Non-hazardous waste disposed	kg	2,16E+02	5,15E-01	2,04E+00	2,19E+02
Radioactive waste disposed	kg	3,91E-02	6,73E-04	4,44E-04	4,02E-02

### Output flows for Overlaid birch plywood:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	1,62E+00	0,00E+00	6,07E-01	2,23E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00



Waste production for Birch Plywood with special overlay and composite construction:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Hazardous waste disposed	kg	3,83E+00	1,47E-05	2,98E-01	4,13E+00
Non-hazardous waste disposed	kg	3,67E+02	1,87E+00	1,21E+00	3,70E+02
Radioactive waste disposed	kg	6,76E-02	2,37E-04	1,33E-04	6,80E-02

Output flows for Birch Plywood with special overlay and composite construction:

PARAMETER	UNIT	A1	A2	A3	TOTAL A1-A3
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	2,23E+00	0,00E+00	0,00E+00	2,23E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00



## Riga Birch Plywood – Your Sustainable Choice

Latvijas Finieris Group has established strict measures in order to guarantee that the production processes strive to minimize the impact on human health as well as on the environment. In addition, we implement and support sustainable forest management system which is friendly for the nature and the surrounding societies.

We are part of Nordic region, which is a global benchmark of sustainability practices. We ensure energy efficient production with as low impact on the environment as possible with current technology, including low mileage of our raw material. We are also active in the social dimension – as a responsible employer, integrating local economy into global value chain and involving our key stakeholders in the overall sustainability process.

Latvijas Finieris wood supply chain is certified according to world's leading sustainable forest management schemes confirming that our timber processing system, from logging to manufacture and delivery, meets the internationally recognised sustainable forest management principles. Our purchasing and manufacturing processes comply with requirements of EU Timber Regulation Nr.955/2010. All our long-term supply partners manage their forests respecting all national laws and regulations and according to best sustainable forestry practices. According to the Latvijas Finieris purchasing policy, the company accepts roundwood exclusively from legal and verified sources. Specialists of Latvijas Finieris make regular supply and supplier audits, in order to assure that they meet FSC or PEFC requirements.

Latvijas Finieris is also actively involved in forest management. In 1998 Latvijas Finieris founded a tree nursery that was one of the first in the country to commence the production of birch container plants. Today, the total production of our nursery has reached 1.5 million saplings per year.

Based on national laws, EU directives and other international norms, Latvijas Finieris runs regular environmental risk assessments and continuously invests in more efficient technology to reduce impacts on environment, for example research and development of lignin-based glue, heat energy recovery, material and resource recycling in manufacturing. Latvijas Finieris Energy management system is certified by Bureau Veritas as complying to ISO 50001. The certificate demonstrates that the company follows systematic approach in achieving continual improvement of energy performance, including energy efficiency, security, use and consumption. This gives more confidence to customers, stakeholders and employees that the company continually reduces its energy use and greenhouse gas emissions.



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