

IMAGINED TIMBER



Program operator, publisher:	Rakennustietosäätiö RTS, The Building Information Foundation RTS Malminkatu 16 A 00100 Helsinki http://cer.rts.fi
Owner of the declaration:	Name of the company
Name of the product:	Imagined timber
Declaration number:	
Issue date:	
Valid to:	
Scope of the declaration	This climate product declaration covers the climate impacts of Imagined Timber. The declaration has been prepared in accordance with EN 15804:2019 and the additional requirements stated in the RTS GWP PCR (English version,). This declaration covers the life cycle stages cradle-to-gate with options.
RAKENNUSTIETO Ilmastaseloste	Toimikunnan sihteeri Yliasiamies

Verified according to the requirements of EN 15804:2019 (product group rules)	
Independent verification of the declaration and data, according to ISO14025:2010 is	
<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External
Third party verifier:	
< Name of the third party verifier >	

DECLARATION OF GENERAL INFORMATION, EN 15804:2019 7.1 a) - j), l)

1. Owner of the declaration, manufacturer

Yritys Oy
Yritystie 1
00100 Helsinki
Etunimi Sukunimi
etunimi.sukunimi@yritys.fi

2. Product name and number

Imagined timber

3. Place of production

Produced in Finland: Haapajärvi, Heinola, Kainuu, Lahti, Savonlinna

4. Additional information

Additional Information from Firstname Lastname.

5. Product Category Rules and the scope of the declaration

The declaration has been prepared in accordance with EN 15804:2019 and ISO 14025 standards and the additional requirements stated in the RTS GWP PCR (English version)

6. Author of the life-cycle assessment and declaration

Engineer Oy, EPDkatu 4 D 00100 Helsinki, tel +358
(0)20 123 456, www.insinööritoimisto.fi. Compiler Kaisa Engineer.
Evaluation made according to values in 2019.

7. Verification

The declaration has been prepared in accordance with EN 15804:2019 and ISO 14025 standards and the additional requirements stated in the RTS GWP PCR (English version). The declaration was verified by Insinööritsto Environment Oy, DI Liisa Ympäristö according to abovementioned standards and PCR rules Ympäristökatu 2, FI-33100 Tampere, +358 456 123, www.environment.com.

Third party verification on 26.11.2022. Verification is valid 26.11.2022-25.11.2027.

8. Declaration issue date and validity

Declaration issue date. The declaration is valid 5 years.

9. Product description

The declaration is made for sawn timber, which is manufactured in several different locations. Pine is used as a raw material. The life cycle assessment of the group's products do not differ by more than $\pm 10\%$.

10. Results of environmental information reported per kilogram

Indicators	Unit	A1-A3	A4	A5	B4	C1	C2	C3	C4	D1	D2	D4	D5
Global Warming Potential total (GWP-total)	kg CO ₂ e	-1,08E+00	1,14E-03	5,26E-04	ND	1,14E-03	8,99E-03	1,54E+00	0,00E+00	2,32E-01			
Global Warming Potential fossil fuels (GWP-fossil)	kg CO ₂ e	1,52E-01	1,14E-03	2,50E-01	ND	1,14E-03	8,99E-03	0,00E+00	0,00E+00	-4,42E-02			
Global Warming Potential biogenic (GWP-biogenic)	kg CO ₂ e	-1,23E+00	0,00E+00	0,00E+00	ND	0,00E+00	0,00E+00	1,23E+00	0,00E+00	0,00E+00			
Global Warming Potential land use and land use change (GWP-luluc)	kg CO ₂ e	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	0,00E+00	3,06E-01	0,00E+00	2,76E-01			
Biogenic carbon content in product	kg C	A3: 0,377											

11. Description of product and its use (It is possible to attach a conversion factor table)

Pine wood to be sawn at the site. Width of sawn timber 100 – 450 mm, sawn thickness 15–55 mm, sawn length 100-8000 mm.

12. Product standards (c-PCR)

c-PCR is not used in the calculations.

13. Physical properties

Sawn timber Thickness [t] ≥ 22 mm, Fire class D-s2, d0

DECLARATION OF MATERIAL CLASSES AND ORIGIN OF MATERIALS, EN 15804:2019 7.1 k)
14. Material classes and origin of materials according to the Finnish Decree on Material Declaration

Material classes	by mass per Declared Unit
Concrete, masonry, tiles, ceramic tiles, natural stone	0
Wood and other bio-based materials	475 kg
Glass materials	0
Plastics and rubber materials	0
Bitumen materials and bitumen mixtures	0
Metals	0
Thermal insulation materials	0
Gypsum-based materials	0
Building integrated appliances	0
Other materials	0

Origin groups of materials	by mass per Declared Unit	Additional information
Renewable materials	475 kg	Pine, certified: 80% PEFC, (confirmed), country of origin: 80% Finland, origin unknown: 20%
Non-renewable materials		
Recycled materials		
Re-used, remanufactured products		
Dangerous substances*		Not contained in the product

* Substances contained in a product listed in the Regulation (EC) No 1272/2008 – classification, labelling and packaging of substances and mixtures, Annex 2-5.

15. Substances under European Chemicals Agency’s REACH, SVHC restrictions

<http://echa.europa.eu/web/guest/candidate-list-table> ,compulsory CAS-number

Name	EC Number	CAS Number
Does not contain	-	-

LIFE CYCLE STAGES AND THEIR INFORMATION MODULES TO BE INCLUDED, EN 15804:2019 6.2, 7.2.1

16. Information modules to be included

This Climate Product Declaration covers the following modules; A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing). The construction stage includes module A4 (Transport to the site) and module A5 (Construction - Installation process). In the end of life stage is included information from modules C1- C4 and beyond the life cycle information from D module.

Mark all the covered modules of the Climate Declaration with X. Mandatory modules are marked with blue in the table below. This declaration covers “cradle-to-gate with options”. Module B4 “Replacement” is an optional, recommended module, see the section 6.3.4 rules and terms in the RTS GWP PCR.

Product stage			Construction process stage		Use stage							End of life stage				Supplementary information beyond the life cycle				
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D1	D2	D4	D5	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
Raw material supply	Transport	Manufacturing	Transport	Construction - installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse and recycling	Energy recovery	Carbon storage	Carbonation	

Mandatory modules
 Recommended module, see the section 6.3.4 rules and terms
 Optional modules based on scenarios

CRITERIA FOR THE EXCLUSION OF INPUTS AND OUTPUTS, EN 15804:2019 6.3.6

17. Cut-off criteria

For the purpose of the review, data for A1-A5 and C1-C4 and additional information on scenarios in Module D have been collected. Modules A1 to A3 include all the raw materials used, energy production (electricity, heat and fuels), including primary production and processing of raw materials and fuels, transport and final disposal or processing of products. All material and energy inputs have been taken into account in the procurement of wood raw material, including both thinning and final felling and the transport of timber along the forest road. In addition, the water load in forest management has been taken into account. It is only transported for short distances. The production of production equipment and means of transport, as well as the machinery, equipment and premises (production goods) needed for

production and in production are excluded from the scope of the assessment, as are the commuting of workers. The calculation of Module D is based on a comparison with the average emissions of district heating in Finland according to the future emissions defined in the Finnish Decree on the Climate Declaration of Buildings.

18. Production process

The following stages of production have been taken into account during the production phase of dried pine sawn timber: sorting and peeling logs, sawing, drying, sorting and packaging. Sawn timber is cut to predetermined dimensions at the site.

REFERENCE SERVICE LIFE, EN 15804:2019 6.3.4

19. Reference service life (RSL)

According to the Finnish Decree on the Climate Declaration of Buildings there is a need on the Reference Service Life information of the product in the specified in-use conditions to be used at the building level assessment.

Recommendation is that RSL information and relevant information for Module B4 (Replacements) are provided in the Climate Product Declaration.

DECLARED UNIT, EN 15804:2019 6.3.3

20. Declared/functional unit

Indicators are reported per 1m³. The average density of dried sawn timber produced from the pine is 475 kg/m³. Dried to 18 % moisture.

CORE ENVIRONMENTAL IMPACT INDICATORS, EN 15804:2019 7.2.3

21. Environmental impacts, Unit (expressed per declared unit)

The results of the impact assessment are relative. They do not predict the effects on the weighted values of the categories, the exceedance limits, safety margins and risks. The unit is expressed per functional or declared unit (e.g. kg/m³). Environmental impact data for A4 and C2 shall be reported per kilometer.

Indicators	Unit	A1-A3	A4	A5	B4	C1	C2	C3	C4	D1	D2	D4	D5
Global Warming Potential total (GWP-total)	kg CO ₂ e	- 4,53E+02	5,40E-01	2,50E-01	ND	4,27E+00	5,40E-01	6,56E+02	0,00E+00	1,10E+02			
Global Warming Potential fossil fuels (GWP-fossil)	kg CO ₂ e	7,25E+01	5,40E-01	2,50E-01	ND	4,27E+00	5,40E-01	0,00E+00	0,00E+00	-2,10E+01			
Global Warming Potential biogenic (GWP-biogenic)	kg CO ₂ e	- 5,25E+02	0,00E+00	0,00E+00	ND	0,00E+00	0,00E+00	5,25E+02	0,00E+00	0,00E+00			
Global Warming Potential land use and land use change (GWP-luluc)	kg CO ₂ e	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	0,00E+00	1,31E+02	0,00E+00	1,31E+02			

INFORMATION ON BIOGENIC CARBON CONTENT, EN 15804:2019 7.2.5
22. Biogenic carbon content

Biogenic carbon content	Unit	A3
Biogenic carbon content in product	kg C	179,3
Biogenic carbon content in packaging	kg	0

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION, EN 15804:2019 7.3
23. Energy in the manufacturing phase

Parameter	Quantity	Data quality
A3 Electricity information and CO ₂ emission kg CO ₂ ekv. /kWh	223	Electricity emissions have been calculated on the basis of the average distribution of production for five years (2015-2019) based on Statistics Finland's data on Finnish electricity production including imports.

24. Additional technical information, transport to the building site

Parameter	Quantity	Data quality
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat etc. Litre of fuel type per distance or vehicle type, Commission Directive 2007/37/EC (European Emission Standard)	-	
Distance (average distance of the transportation) km	-	
Capacity utilisation % (including empty returns)	-	
Bulk density of transported products kg/m ³	-	
Volume capacity utilisation factor (factor = 1 or <1 tai ≥ 1 for compressed or nested packaged products)	-	

25. End-of-life process description

Process flow	Unit (expressed per functional unit or per declared unit of components products or materials and by type of material)	Value kg/kg Data quality
Collection process specified by type	kg collected separately	1
	kg collected with mixed construction waste	-
Recovery system specified by type	kg for re-use	-
	kg for recycling	-
	kg for energy recovery	1
Disposal specified by type	kg product or material for final deposition	-
Assumptions for scenario development, e.g. transportation	units as appropriate	

*These values are based on current estimation on end-of-life processes

26. Other technical information

Technical information	N/mm ²
Compressive strength in the direction of cause	50
Compressive strength in the direction of cause perpendicular to the	7,0
Tensile strength in the direction of cause	95
Bending strength	91
Modulus module	10900
Shear	9,1
Density	475 kg/m ³

27. Product information :

Pine wood timber

ST-quality timber is used as structural timber in visible non-load-bearing structures.

Humidity 18%, special drying according to use,

Density Approx. 475 kg/m³ at 18% moisture condition.

Surface Sawing

Most common widths 100 / 125 / 150 / 175 / 200 / 225 mm

Most common thicknesses 19/ 25/ 25/ 32/ 28/ 44/ 47/ 50/ 75 mm

Extra thicknesses up to 100 mm

Lengths 2,100–5,400 mm, customer-specific lengths

28. Reference of the common information

The Building Information Foundation RTS (RTS GWP Product Category Rules). Rakennustietosäätiö RTS sr (RTS GWP PCR 15804:2019)

ISO 14025

ISO 14025:2011-10 Environmental labels and declarations. Type III environmental declarations. Principles and procedures

EN 15804

EN15804:2019 Sustainability of construction works. Environmental Product Declarations. Core rules for the product category of construction products

29. Product information (volunteer, verified information)

Pine, 80% PEFC certified (confirmed)

Pine, 20%, origin unknown