



KRONUS
CARRYING YOUR BUSINESS



upyard

ENVIRONMENTAL PRODUCT DECLARATION

**IN ACCORDANCE WITH ISO 14025:2006 FOR: GARDENBOX
FROM KRONUS LTD**



Programme: The
International EPD®
System

www.environdec.com

Programme
operator: EPD
International AB

EPD registration
number:
S-P-08949

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2023-05-11

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2028-04-04



PROGRAMME INFORMATION

PROGRAMME:

The International EPD® System

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THE INTERNATIONAL EPD® SYSTEM

ACCOUNTABILITIES FOR PCR, LCA AND INDEPENDENT, THIRD-PARTY VERIFICATION

Product Category Rules (PCR)

PCR: PCR 2012:19 Furniture, except seats and mattresses (version 2.01)
UN CPC: 3814 Other furniture n.e.c.

PCR review was conducted by: IVL Swedish Environmental Research Institute
Secretariat of the International EPD® System

Life Cycle Assessment (LCA)

LCA accountability: Dr. Ing. Kaspars Zudrags, SIA BM Certification

Third-party verification

Independent third-party verification of the declaration and data, according to
ISO 14025:2006, via:

- EPD verification by individual verifier
- Third-party verifier: Prof. V. Koči
- Approved by: The International EPD® System



COMPANY INFORMATION

OWNER OF THE EPD:

SIA KRONUS, Daugulu street 19, Ulbroka, Stopinu pag., Ropazu nov., LV-2130
Latvia, info@kronus.eu

DESCRIPTION OF THE ORGANISATION:

SIA KRONUS is an emerging global leader in the manufacture, sale, and development of wooden packaging, related services, timber and steel products and products for gardening&DIY. As a division of KRONUS gardening and DIY was born in 2018, but in the end of 2021 for this segment the brand UpYard was created.

The brand name UpYard is based on the concept of playful improvement of space that. The “Yard” in UpYard represents the territory in which we mostly operate and where our products are mostly used. The “Up” in UpYard represents the improvement we bring to all spaces our products are present. That’s why we design easy-to-assemble products for gardens, balconies and all landscapes and climates, no matter who you are or where you live. Our range of easy to use, practical gardening solutions allow creating flower or veg and herb oases in any location.

Upyard takes responsibility by making gardening products manufactured in a responsible and environmentally-friendly way. We create gardening products using natural materials. Our products feature simple design and pay tribute to both industrial and Scandinavian styles. We believe that gardening should be sustainable, fun and accessible to all.

The Upyard brand encompasses a wide and continuously growing collection of gardening products and accessories for yards, balconies and wooden houses. Our products are sold in more than 20 countries throughout the world.





COMPANY INFORMATION

PRODUCT-RELATED OR MANAGEMENT SYSTEM-RELATED CERTIFICATIONS:

Throughout the whole production process, from the purchase of raw materials to the delivery of the finished goods to end-users, company ensure the consistent quality of our products.

SIA KRONUS manufacturing processes comply with international standards - ISO 9001: 2015, ISO 14001:2015, ISO 50001:2018, ISO 28001:2007. As well as, company have implemented and maintains the Chain of Custody management system in accordance with the requirements of the standards PEFC ST 2002:2020 and FSC-STD-40-004 V3-1. The company’s policy is to use PEFC (PEFC/12-31-010) and FSC® (FSC-153405) certified raw materials as much as possible. The company, for the development and sale of certified and controlled products, will use only such properties, the origin of which be clearly known and proven.

The obtained certificates confirm the compliance of the materials, the finished product and the production itself with international standards. This is an important point to export the product worldwide and create packaging solutions that suit everyone. It is important to us that we can provide the highest quality packaging, and this is confirmed by the certificates we have obtained.

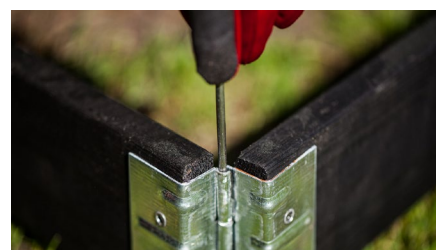
NAME AND LOCATION OF PRODUCTION SITE:

SIA KRONUS, Daugulu street 19, Ulbroka, Stopinu pag., Ropazu nov., LV-2130 Latvia.



PRODUCT INFORMATION

| | |
|----------------------------|---|
| Product name | Raised beds — GardenBox Eco & GardebBox Professional |
| Product description | Wooden boxes from pallet collars, or Raised Beds we call Garden Box ECO & Garden Box Profession, is a structure that allows creating a vegetable patch in any place even where there is no natural soil |
| UN CPC code | 88314 Wooden containers manufacturing services NACE 16.24 Manufacture of wooden containers |
| Geographical scope | Europe |





LCA INFORMATION

| | |
|--|---|
| Functional unit / declared unit | One 1m ³ |
| Reference service life | Up to 10 year – depending on the type of application and care |
| Time representativeness | Data for calculation were collected by Kronus SIA and cover 12 months of year 2021 |
| Database(s) and LCA software used | One Click LCA, Ecoinvent 3.6 |
| Description of system boundaries | Cradle-to-gate with options C1, C2, C3 |
| Excluded lifecycle stages | A4, A5, B1, B2, B3, B4, B5, B6, B7, C4, D |
| Manufacturing and packaging | Upon delivery, all material is examined for quality compliance using a variety of standards, including dimensions, humidity level, tolerances, etc. Raw material is sorted according to internal sorting criteria and measures the external dimensions. During the production process all materials are dried to the moisture content 22%. Raw material is processed according to product specifications – if needed, it is calibrated and/ or plained and sawed in needed dimensions |
| Cut-of-Rules | <p>All known inputs and outputs are included in the study. The ancillary materials have been cut-off due to insufficient and minor influence of data. No less than 95 % of all inflows (mass and energy) to the upstream and core modules shall be included.</p> <p>The raw material necessary for the manufacture is allocated by mass of the declared unit.</p> |

SYSTEM BOUNDARY:

| | | | |
|-----------------------------|-----------|-----|-------------------------------------|
| Product stage | A1 | ✓ | Raw material supply |
| | A2 | ✓ | Transport |
| | A3 | ✓ | Manufacturing |
| Construction process | A4 | MND | Transpor |
| | A5 | MND | Construction – installation process |
| Use | B1 | MND | Use stage |
| | B2 | MND | Maintenance |
| | B3 | MND | Repair |
| | B4 | MND | Replacement |
| | B5 | MND | Refurbishment |
| | B6 | MND | Operational energy use |
| | B7 | MND | Operational water use |
| End of life | C1 | ✓ | Deconstruction demolition |
| | C2 | ✓ | Transpor |
| | C3 | ✓ | Waste processing |
| | C4 | MND | Disposal |
| Benefits | D | MND | Reuse, recovery, recycling |

✓ – included, MND – Module Not Declared

CONTENT DECLARATION

PRODUCT

| Product components | kg | % | Environmental / hazardous properties |
|--------------------|-------|------|--------------------------------------|
| Pine wood | 510 | 76.4 | Renewable |
| Plywood | 26.2 | 3.9 | Renewable 90% |
| Metal | 125 | 18.8 | |
| Aluminium | 5.9 | 0.9 | |
| TOTAL | 667.1 | | |



PACKAGING

Distribution packaging

Packed on wooden pallet, secured with plastic tape, and wrapped with a stretch film

Consumer packaging

Secured with plastic tape and packed in cardboard box

GardenBox contains biogenic carbon which refers to atmospheric carbon stored in a growing tree by photosynthesis. The kg of biogenic carbon CO₂ is calculated in upstream stage as a negative value to the global warming potential (GWP) and as a positive value (the same amount) in the downstream stage.

1 kg of wood contains 0.5 kg of carbon, which is equal to around 3.67 kg of CO₂ which is removed from the atmosphere.



RESULTS OF THE ENVIRONMENTAL PERFORMANCE INDICATORS

IMPACT CATEGORY INDICATORS

| Parameter | | Unit | Upstream | Core | Downstream | Total |
|---|----------------------------------|-----------------------------------|-----------|----------|------------|-----------|
| Global warming potential (GWP) | Fossil | kg CO ₂ eq. | 6.38E+02 | 4.75E+01 | 1.01E+01 | 6.92E+02 |
| | Biogenic | kg CO ₂ eq. | -7.80E+02 | 4.37E+01 | 7.52E+02 | -2.44E+01 |
| | Land use and land transformation | kg CO ₂ eq. | 1.42E+00 | 3.77E+00 | 3.75E-03 | 1.46E+00 |
| | TOTAL | kg CO ₂ eq. | 4.79E-05 | 3.83E-02 | 7.62E-05 | 6.69E+02 |
| Ozone layer depletion (ODP) | | kg CFC 11 eq. | 3.30E+00 | 9.15E-06 | 2.06E-06 | 5.91E-05 |
| Acidification potential (AP) | | mol H ⁺ eq. | 3.56E-02 | 2.44E-01 | 6.29E-02 | 3.61E+00 |
| Eutrophication potential (EP) | Aquatic freshwater | kg P eq. | 6.59E-01 | 6.91E-04 | 2.50E-04 | 3.65E-02 |
| | Aquatic marine | kg N eq. | 7.19E+00 | 5.05E-02 | 1.63E-02 | 7.26E-01 |
| | Aquatic terrestrial | mol N eq. | 2.65E+00 | 5.72E-01 | 1.84E-01 | 7.94E+00 |
| Photochemical oxidant creation potential (POCP) | | kg NMVOC eq. | 1.05E-02 | 1.69E-01 | 5.00E-02 | 2.87E+00 |
| Abiotic depletion potential (ADP) | Metals and minerals | kg Sb eq. | 7.59E+03 | 5.39E-04 | 1.80E-04 | 1.12E-02 |
| | Fossil resources | MJ, net calorific value | 1.70E+02 | 7.32E+02 | 1.43E+02 | 8.46E+03 |
| Water deprivation potential (WDP) | | m ³ world eq. deprived | 6.38E+02 | 4.47E+00 | 5.98E-02 | 1.75E+02 |



RESULTS OF THE ENVIRONMENTAL PERFORMANCE INDICATORS

RESOURCE USE INDICATORS

| Parameter | | Unit | Upstream | Core | Downstream | Total |
|--|-----------------------|-------------------------|----------|----------|------------|----------|
| Primary energy resources – Renewable | Use as energy carrier | MJ, net calorific value | 5.18E+03 | 1.82E+02 | 7.12E+00 | 5.37E+03 |
| | Used as raw materials | MJ, net calorific value | 1.20E+04 | 2.38E+00 | 4.15E-02 | 1.20E+04 |
| | TOTAL | MJ, net calorific value | 1.71E+04 | 1.85E+02 | 7.17E-00 | 1.73E+04 |
| Primary energy resources – Non-renewable | Use as energy carrier | MJ, net calorific value | 7.59E+03 | 7.10E+02 | 4.50E+01 | 8.34E+03 |
| | Used as raw materials | MJ, net calorific value | 0.00E+00 | 2.20E+01 | 9.76E+01 | 1.20E+02 |
| | TOTAL | MJ, net calorific value | 7.59E+03 | 7.32E+02 | 1.43E+02 | 8.46E+03 |
| Secondary material (optional) | | kg | 4.43E+01 | 2.44E-02 | 0.00E+00 | 4.43E+01 |
| Renewable secondary fuels (optional) | | MJ, net calorific value | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Non-renewable secondary fuels (optional) | | MJ, net calorific value | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Net use of fresh water (optional) | | m ³ | 5.41E+00 | 1.32E-01 | 1.82E-02 | 5.56E+00 |

WASTE INDICATORS (OPTIONAL)

| Parameter | | Unit | Upstream | Core | Downstream | Total |
|------------------------------|--|------|----------|----------|------------|----------|
| Hazardous waste disposed | | kg | 9.73E+01 | 7.93E-01 | 2.67E-04 | 9.81E+01 |
| Non-hazardous waste disposed | | kg | 1.25E+03 | 3.45E+01 | 5.35E-03 | 1.29E+03 |
| Radioactive waste disposed | | kg | 2.52E-02 | 3.93E-03 | 7.09E-04 | 2.98E-02 |



RESULTS OF THE ENVIRONMENTAL PERFORMANCE INDICATORS

OUTPUT FLOW INDICATORS (OPTIONAL)

| Parameter | Unit | Upstream | Core | Downstream | Total |
|-------------------------------|-----------------------|----------|----------|------------|----------|
| Components for reuse | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Material for recycling | kg | 0.00E+00 | 0.00E+00 | 1.30E+02 | 1.30E+02 |
| Materials for energy recovery | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Exported energy, electricity | MJ per energy carrier | 0.00E+00 | 0.00E+00 | 6.62E+02 | 6.62E+02 |
| Exported energy, thermal | MJ per energy carrier | 0.00E+00 | 0.00E+00 | 3.76E+03 | 3.76E+03 |

DIFFERENCES VERSUS PREVIOUS VERSIONS

This EPD is the second version prepared by SIA KRONUS.

Version 2.0 valid until 2028-04-04. Editorial changes:

- Updated information in “Description of the organization”.
- Changes photo on the cover and pages 3., 4., 6.
- Revision date added on cover page.

REFERENCES

- General Programme Instructions of the International EPD® System. Version 4.0.
- Other references.
- PCR 2012:19 Furniture, except seats and mattresses (version 2.01).
- ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.
- ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.
- ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.
- Ecoinvent database v3.6 (2019) and One Click LCA database.
- GaardenBox LCA background report 20.03.2023.
- EN 16449:2014 Wood and wood-based products – Calculation of the biogenic carbon content of wood and conversion to carbon dioxide.