Environmental product declaration

according to ISO 14025 and EN 15804

concept
wiesner hager

Seating for public areas, acc. to EN 16139, EN 1022 and EN 1728

arta Stacking chair

CRITERION 1: ISO 14025 TYPE III
CRITERION 2: BASED ON ISO 14040
CRITERION 3: BASED ON ISO 14044

TÜV AUSTRIA
CERTIFIED ENVIRONMENTAL DECLARATION
CERTIFICATE NO. TA220121634
TÜV AUSTRIA GMBH

Design: arge2

Environmental Product Declaration

EPD

Wiesner-Hager Möbel GmbH Linzer Straße 22 A-4950 Altheim Tel. 0043 7723 460-0 http://www.wiesner-hager.com/en/	**Manufacturer** **Declaration holder**
TA 22012 1634 6890-200 03297740460	**EPD number**
6890-200 arta arta Stacking chair	**Declared product**
This declaration was compiled according to ISO 14025 and EN 15804 type B. It describes the environmental rating of the listed product and gives the possibility to compare it with other similar products.	**Purpose**
The content of this declaration is based on the results of the operational life cycle assessment, according to EN ISO 14040/44 of the fiscal year 2022/23. The used generic data comes from acknowledged life cycle management databases and current EPD's of the declaration holders upstream products and are calculated using the CML method. https://www.wiesner-hager.com/en/about-us/sustainability/life-cycle-assessment/	**Data origin**
The procedure to compile this declaration was audited on 14 th September 2023 by TÜV Austria GmbH.	**Auditing**
Dipl.-Ing. Dr. Jürgen Hain, TÜV Austria GmbH, Wien	**Auditor**
By means of the certificate TA 22012 1634 from 26 th September 2023, TÜV Austria GmbH authorizes the declaration holder to generate EPD type III. Download certificate	**Certification**
The certificate is valid until 30 th September 2026. The compliance of the requirements will be ensured by annual, internal and external evaluations.	**Validity**
Gerhard Steigthaler, Master of Sciene, environmental engineer	**Issuer**
29. February 2024	**Date of issue**

Content

This declaration includes
- Pictures, descriptions and fulfilled standards
- Information about life cycle assessment
- Specific characteristics of the product configuration
- Indicators of the life cycle and impact assessment
- Details on the material composition of the product
- Information about material certificates of the used raw materials
- Recycling potentials

Investigation frame

The assessment of the declared product covers the whole lifecycle process from raw materials, manufacturing and disposal, including all transportation. The anticipated lifespan of the product is 15 years, assuming the product is used in line with the manufacturer's guidance and for the application it was designed and intended. As a result of the high product quality, no repairs are expected during the lifetime and no environmental impact is anticipated. All recycling is carried out in line with European standards. Component parts are separated and recycled accordingly and any remaining waste material is incinerated under strict controls for the generation of energy. All transport distances including those of our suppliers and subcontractors are considered; all distances are calculated using route planning software. The distance between the declaration holder and the end user is 500 km, the average distance between the end user and the waste management company is calculated at 50 km.

System boundaries

The standard EN 15804 describes the basic rules for the preparation of environmental product declarations for building materials. Furniture are still irrelevant for sustainability certifications of buildings, however we try to assign the high transparency of this standard to our furniture as far as possible.The following lifecycles are considered in this document:

Phase	Name of lifcycle	relevant
A1	raw material supply and processing	yes
A2	transportation to the manufacturer of precursor products	yes
A3	production of precursor products	yes
A4	transportation to building site	no
A4	transportation of the product to the end user *)	yes
A5	manufacturing of the product **)	yes
B1	use of the product ***)	no
B2	maintenance	no
B3	repair	no
B4	substitute	no
B5	renovation	no
B6	energy consumption for technical building equipment	no
B7	water consumption for technical building equipment	no
C1	demolition	no
C2	transportation to waste treatment	yes
C3	waste treatment	yes
C4	landfilling	yes
D	recycling potential	yes

*) Acc. to EN 15804 the modul A4 describes the transport of the building materials to building site, here it stands for the transport of furniture to the end user

**) Acc.to EN 15804 the modul A5 describes the installation of building materials into the building, here it stands for the manufacturing of the furniture at the factory

***) The use of our furniture has no relevant environmental effects

The general information of the LCA refers to whole lifecycle, beginning with the raw material make, the manufacturing of the product until the disposal of *one* unit of the product with an anticipated lifespan of 15 years. But the division of impact factors with the masses of the product allowes also a specific statement in mass.	**Functional unit**
Seating for public areas, acc. to EN 16139, EN 1022 and EN 1728	**Application**
6890-200 arta arta Stacking chair, beech, seat shell plywood	**Identification of product**
Modern design and sophisticated construction details are the main characteristics of the solid-wood chair range arta. Due to its freely moving backrest and the slim solid-wood frame the chair appears light and elegant. The ergonomic shape and high quality upholstery of the shell guarantee optimum comfort. arta lends itself to a multitude of uses in modern office architecture, especially in communication and recreation areas and public buildings as well as in buildings designed for care assisted living.	**Description of product**
colour of wood B02 natural beech; leg finish plastic glides	**Configuration of**

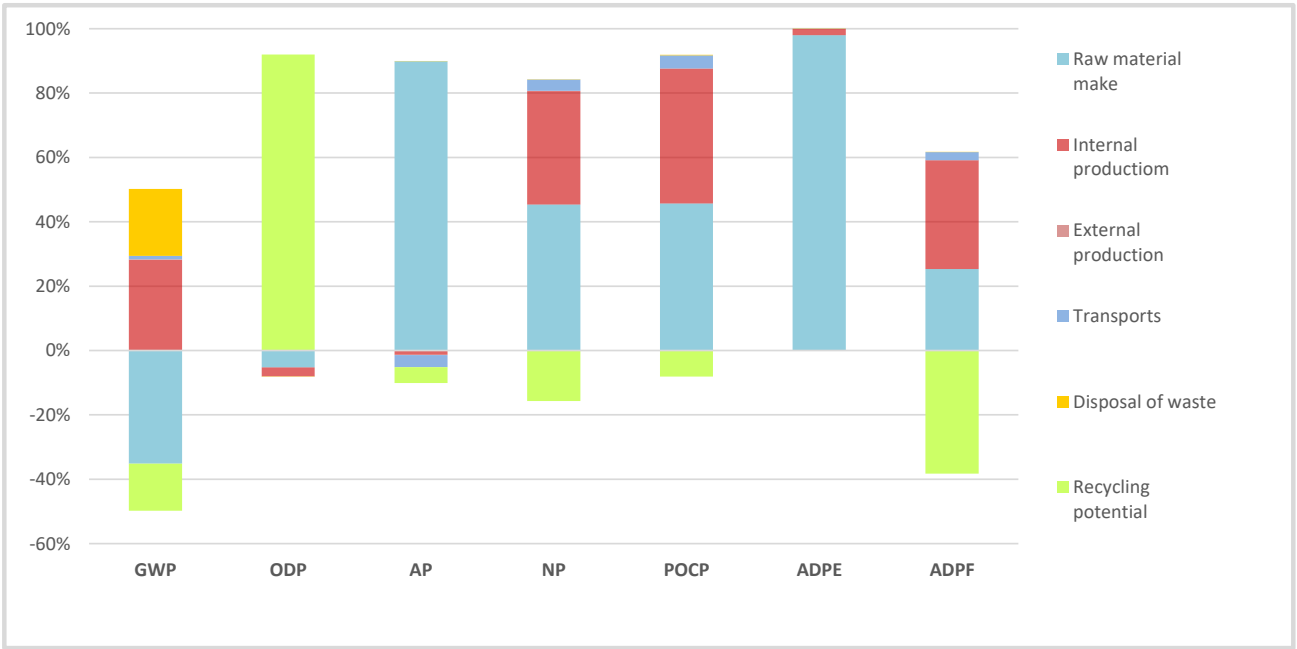
Eco-balance indicators

LCA Indicators		Global warming GWP	Ozone depletion ODP	Acidifi-cation AP	Nutrifi-cation NP	Ozone creation POCP	Abiotic resources ADPE
		CO2 eq.	CCl3F eq.	SO2 eq.	PO4-3 eq.	C2H4 eq.	Sb eq.
Lifecycle		(kg)	(mg)	(g)	(g)	(g)	(g)
Raw material make	A1-A3	-15,97	0,03	9,55	15,53	3,19	3,82
Transportation	A4	0,25	0,00	-0,20	0,60	0,14	0,00
Internal production	A5	12,83	0,01	-0,15	12,09	2,93	0,07
Sub-contracting	A5	0,00	0,00	0,0	0,00	0,00	0,00
Transport to the end user	A4	0,24	0,00	-0,18	0,54	0,13	0,00
Waste treatment	C2-C4	9,46	0,00	-0,02	0,10	0,02	0,00
Recycling potential	D	-6,66	-0,50	-0,52	-5,36	-0,57	0,00
Total		**0,14**	**-0,45**	**8,49**	**23,49**	**5,85**	**3,90**

Use of resources		Abiotic fossil fuels	Primary energy renewable		Primary energy fossil		Use recycled fibre
			energy carrier	material use	energy carrier	material use	
		ADPF	PERE	PERM	PENRE	PENRM	SM
Lifecycle		(MJ)	(MJ)	(MJ)	(MJ)	(MJ)	(kg)
Raw material make	A1-A3	69,30	92,67	227,07	64,34	12,36	0,04
Transportation	A4	3,39	0,20	0,00	3,40	0,00	0,00
Internal production	A5	92,51	91,39	0,17	89,28	1,24	0,00
Sub-contracting	A5	0,00	0,00	0,00	0,00	0,00	0,00
Transport to the end user	A4	3,18	0,19	0,00	3,19	0,00	0,00
Waste treatment	C2-C4	0,49	60,35	-97,15	2,05	-4,02	0,00
Recycling potential	D	-104,79	19,29	0,00	-118,98	0,00	0,00
Total		**64,08**	**264,09**	**130,09**	**43,28**	**9,58**	**0,04**

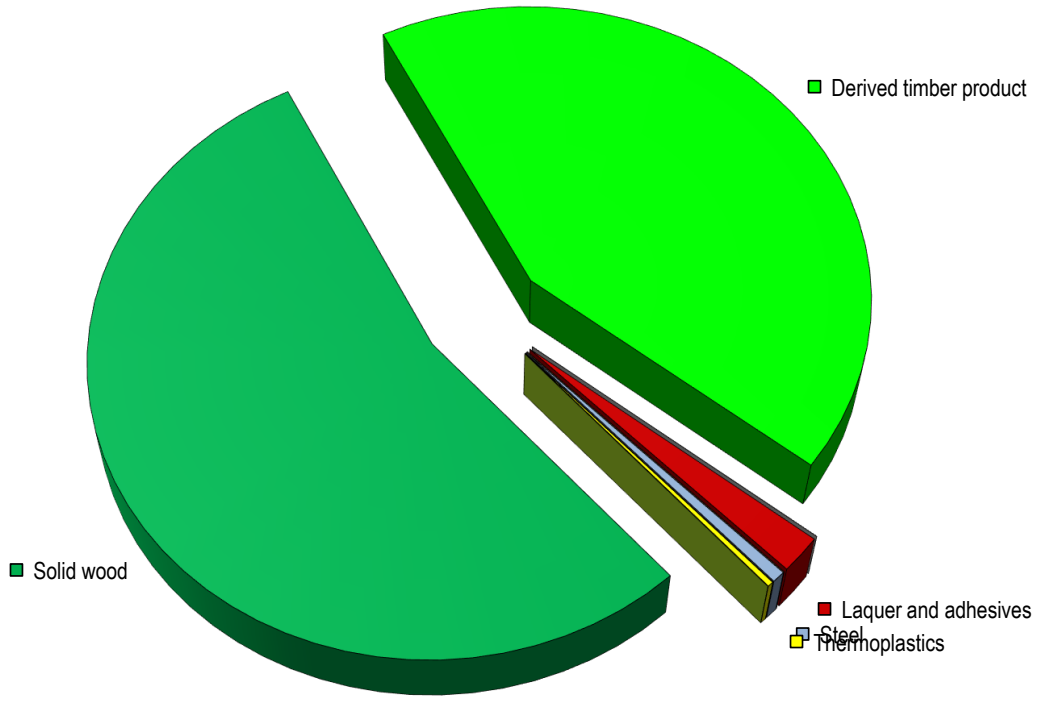
Use of resources / waste		Recycled fuels		Use	Waste		
		renewable	fossil	sweetwater resources	dangerous waste site	no dangerous	radioactive waste
		(RSF)	(NRSF)	FW	(HWD)	(NHWD)	(RWD)
Lifecycle		(MJ)	(MJ)	(m^3)	(kg)	(kg)	(kg)
Raw material make	A1-A3	1,57	0,00	0,05	0,00	0,16	0,00
Transportation	A4	0,00	0,00	0,00	0,00	0,00	0,00
Internal production	A5	0,00	0,00	0,10	0,00	0,14	0,00
Sub-contracting	A5	0,00	0,00	0,00	0,00	0,00	0,00
Transport to the end user	A4	0,00	0,00	0,00	0,00	0,00	0,00
Waste treatment	C2-C4	0,00	0,00	0,00	0,00	0,01	0,00
Recycling potential	D	28,07	0,00	0,03	0,01	0,03	-0,01
Total		**29,64**	**0,00**	**0,19**	**0,01**	**0,34**	**-0,01**

Impact contribution



Material composition			Recycling content			
Materials	**Weight**	**Share**	**material**	**energetic**	**disposal**	**[ ]**
Steel	0,036	0,6%	0,035	0,000	0,001	kg
Aluminium	0,001	0,0%	0,001	0,000	0,000	kg
Other metals						
Thermoplastics	0,016	0,3%	0,001	0,013	0,002	kg
Duromer	0,007	0,1%	0,000	0,006	0,000	kg
Elastomer						
Laminated plastics						
Wood-Plastic Composites						
Solid wood	3,219	54,1%	0,000	3,200	0,019	kg
Derived timber product	2,551	42,9%	0,000	2,528	0,023	kg
Paper, -board						
Leather						
Other renewable materials						
Glass						
Other mineral materials						
Laquer and adhesives	0,117	2,0%	0,000	0,105	0,013	kg
Chemicals						
Auxiliaries						
Total	**5,947**	**100,0%**	**0,037**	**5,853**	**0,057**	**kg**

Material composition



The proportion of secondary raw material in this product is 1,9%. It includes 97% renewable materials.

Use of laquer and adhesives

Application	Chemical characterisation	Weight[1]	VOC[2]	Classific.[3]
Wood glues	PVAC glue	0,126 kg	0,0%	no
Hotmelt adhesives	-	-	-	-
Fabric glues	-	-	-	-
Assembly adhesives	-	-	-	-
Stains	-	-	-	-
Water-based varnish	Water-based acrylic lacquer	0,135 kg	1,0%	no
Powder coatings	-	-	-	-
Solvent-based varnis	-	-	-	-

The product is free of halogenated plastics (PVC).

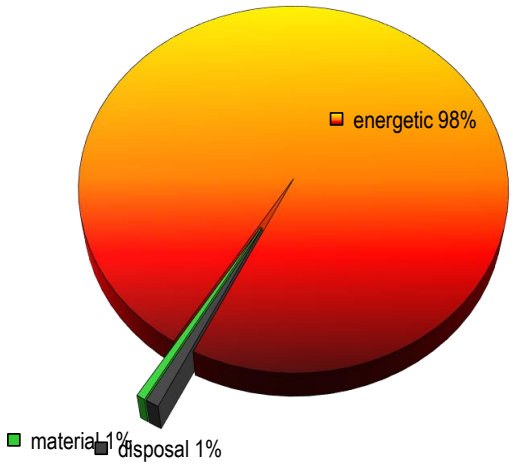
[1] dry matter
[2] uncured
[3] acc. EG Reg. No 1272/2008

Material certificates

The following certificates are valid only for the mentioned raw-materials but not for the final product:

Shaped plywood: FSC Standard - certificate NC-COC-015475, licence FSC-C111028
Shaped plywood: FSC Standard - certificate SA-COC-003859, licence FSC-C114335
Beachwood: PEFC Standard - certificate HCA-CoC-0159, licence PEFC/06-32-88

Recycling rate (EoL)



The chart shows the presently usual recycling rate in Western Europe, based on the used material mix.

The thermal recycling will release energy to the amount of 110 MJ. This is equivalent to 3,1 litre of light fuel oil.

The remaining ash from the incineration will be disposed of in a landfill.

Publisher and picture credits

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