



Environmental product declaration

according to ISO 14025

Office swivel chair, acc. to EN 1335-1, EN 1335-2 and EN 1335-3
GS – tested safety, certified ergonomics

ayo Swivel chair with multifunctional arms

wiesner hager ^{concept}

EPD Declaration number
TA 22012 1634 5501-101 02303470040

TÜV
AUSTRIA

ZERTIFIZIERTE
UMWELTDEKLARATION
ISO 14025 EPD TYP III
TÜV AUSTRIA CERT GMBH



Environmental Product Declaration
EPD

Design: arge2

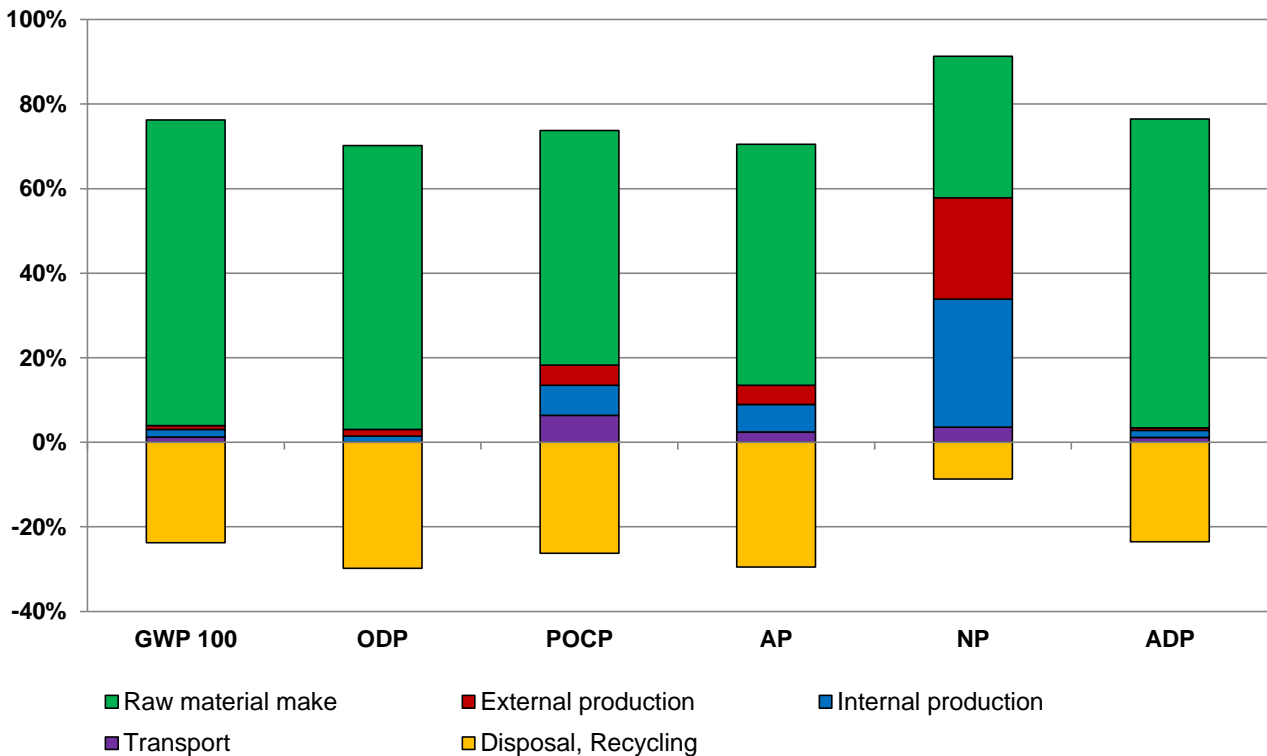
Wiesner-Hager Möbel GmbH Linzer Straße 22 A-4950 Altheim Tel. 0043 7723 460-0 http://www.wiesner-hager.com	Manufacturer Declaration holder
TA 22012 1634 5501-101 02303470040	EPD number
5501-101 ayo ayo Swivel chair with multifunctional arms	Declared product
This declaration was compiled according to EN ISO 14025. 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 ISO 14040 of the business year 2015/16. The used generic data comes from acknowledged life cycle management databases and current EPD's of the declaration holders upstream products. http://www.wiesner-hager.com/en/sustainability/life-cycle-assessment/	Data origin
The procedure to compile this declaration was audited on 4 th September 2014 by TÜV Austria.	Auditing
Dipl.-Ing. Dr. Jürgen Hain, TÜV Austria Cert , Wien	Auditor
By means of the certificate TA 22012 1634 from 30 th September 2014, TÜV Austria authorizes the declaration holder to generate EPD type III. Download certificate	Certification
The certificate is valid until 30 th September 2017. The compliance of the requirements will be ensured by annual internal and external evaluations.	Validity
Gerhard Steigthaler, Master of Sciene, environmental engineer	Issuer
28. July 2016	Date of issue

<p>This declaration includes</p> <ul style="list-style-type: none"> - 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 	Content
<p>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 1000 km, the average distance between the end user and the waste management company is calculated at 50 km.</p>	System boundaries
<p>The general information of the LCA refers to the production, the use and the disposal of one unit of the product with an anticipated lifespan of 15 years.</p>	Functional unit
<p>Office swivel chair, acc. to EN 1335-1, EN 1335-2 and EN 1335-3 GS – tested safety, certified ergonomics</p>	Application
<p>5501-101 ayo ayo Swivel chair with multifunctional arms, seat upholstered, back with black</p>	Identification of product
<p>cover 1 fabric S6401 anthracite; colour of metal polished aluminium; leg finish hard castors</p>	Configuration of product
<p>The concept of ayo stands for a design that is moving with the times – with flowing contours, formally calm, elegant and confident. The double net mesh of the frame creates a three-dimensional body with volume, at the same time retaining a quality of lightness. Simultaneously the mesh upholstery offers perfect ergonomic qualities and a high climate comfort. The seat support with elastic cover additionally regulates moisture and temperature. The newly developed synchro-mechanism for dynamic sitting enables a perfect harmonisation between the movements of seat and back. The result: optimized support of the body in every sitting position. Another of ayo's plus points: convenient spring-tension quick adjustment and the synchronous adjustment of seat depth and backrest height.</p>	Description of product

LCA-Indicators	Input			Output		
	Primary energy demand		Water use	Burden	Domestic waste	Hazardous waste
	non ren.	renewable				
Cause	(MJ)	(MJ)	(m ³)	(kg)	(kg)	(kg)
Raw material make	1.775,98	293,49	940,65	255,27	0,45	0,54
External production	9,25	80,84	193,71	6,74	0,07	-0,01
Internal production	39,14	180,51	228,22	9,04	0,04	-0,01
Transport	28,05	1,13	0,10	0,15	0,00	0,00
Recycling potential	-669,64	-154,13	-6,64	-115,35	0,00	-0,18
Disposal	0,00	0,19	0,01	0,00	0,53	0,00
Total	1.182,78	402,04	1.356,06	155,86	1,09	0,34

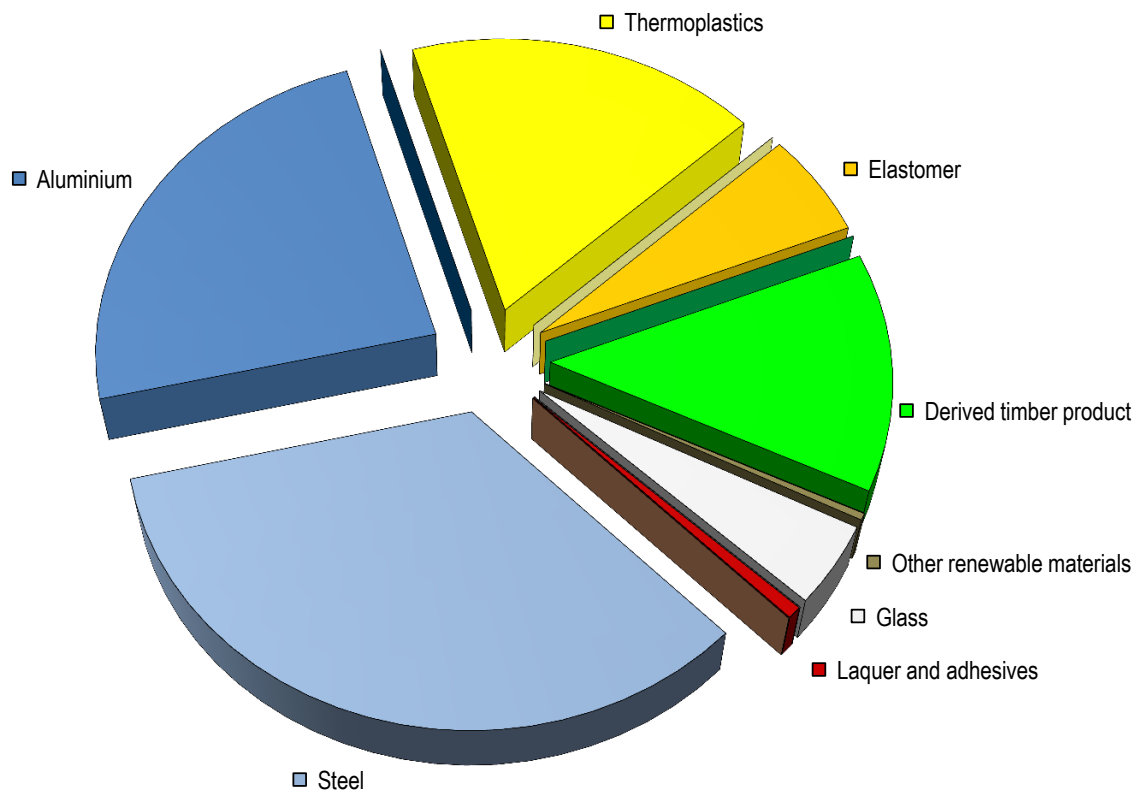
Environmental impacts	Output					Input
	Global warming	Ozone depletion	Ozone creation	Acidification	Nutritification	Abiotic resources
	GWP	ODP	POCP	AP	NP	ADP
	CO ₂ eq.	CCl ₃ F eq.	C ₂ H ₄ eq.	SO ₂ eq.	PO ₄ ⁻³ eq.	Sb eq.
Cause	(kg)	(mg)	(g)	(g)	(g)	(g)
Raw material make	112,53	6,33	47,78	400,17	29,49	838,18
External production	1,44	0,15	4,10	32,09	21,12	6,81
Internal production	2,82	0,14	6,10	45,22	26,64	18,78
Transport	1,93	0,00	5,49	17,38	3,17	13,43
Recycling potential	-44,68	-2,90	-22,58	-207,82	-7,84	-269,73
Disposal	7,63	0,09	0,00	0,76	0,16	0,00
Total	81,67	3,81	40,88	287,80	72,75	607,47

Impact Contribution



Material composition			Recycling content			
Materials	Weight	Share	material	energetic	disposal	[]
Steel	6,666	33,9%	6,533	0,000	0,133	kg
Aluminium	4,696	23,9%	4,602	0,000	0,094	kg
Other metals						
Thermoplastics	3,502	17,8%	0,235	2,917	0,350	kg
Duromer						
Elastomer	1,132	5,8%	0,000	1,068	0,065	kg
Laminated plastics						
Wood-Plastic Composites						
Solid wood						
Derived timber product	2,564	13,0%	0,000	2,526	0,038	kg
Paper, -board	0,001	0,0%	0,001	0,000	0,000	kg
Leather						
Other renewable materials	0,070	0,4%	0,000	0,005	0,000	kg
Glass	0,877	4,5%	0,546	0,000	0,331	kg
Other mineral materials						
Laquer and adhesives	0,128	0,6%	0,000	0,114	0,014	kg
Chemicals						
Auxiliaries	0,014	0,1%	0,000	0,000	0,000	kg
Total	19,649	100,0%	11,916	6,629	1,025	kg

Material composition



The proportion of secondary raw material in this product is 43,2%. It includes 13,4% renewable materials.

Laquer and adhesives

Application	Chemical characterisation	Weight ¹	VOC ²	Classific. ³
Wood glues	-	-	-	-
Hotmelt adhesives	-	-	-	-
Fabric glues	Waterbased dispersion adhesive	0,095 kg	0,0%	-
Fabric glues	Waterbased dispersion adhesive	0,01 kg	0,0%	CLP
Assembly adhesives	-	-	-	-
Stains	-	-	-	-
Powder coatings	Polyester powder lacquer	0,045 kg	0,0%	-
Powder coatings	EP/PES powder lacquer	0,03 kg	0,0%	-

The product is free of halogenated plastics (PVC).

¹ dry mass

² before curing

³ acc. EU Directive

Material certificates

The following certificates are valid for the mentioned raw-material groups used in the product

Wood plastic composit: PEFC Standard - certificate HW-CoC-0296-14, PEFC/04-31-1282

Upholstery fabric: EU Ecolabel - licence DK/016/020

Upholstery fabric: Oeko-Tex Standard100 - certificate 1076-17401, product class III

Upholstery materials: Oeko-Tex Standard100 - certificate AMM 17680, product class I

Upholstery materials: Oeko-Tex Standard100 - certificate 1011039, product class I

Upholstery materials: Oeko-Tex Standard100 - certificate 09.HTR.66245, product class I

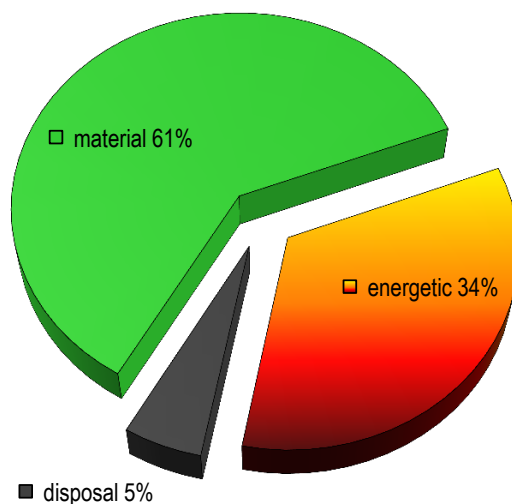
Upholstery materials: Oeko-Tex Standard100 - certificate 14.0.38809, product class I

Upholstery materials: Oeko-Tex Standard100 - certificate 12.HRO.03048, product class I

Upholstery materials: Oeko-Tex Standard100 - certificate 041610.O, product class I



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 175 MJ. This is equivalent to 4,9 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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Certification

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