

Environmental Product Declaration

 **EPD**®
THE INTERNATIONAL EPD® SYSTEM



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Space

SP 1501

from

RIM CZ a. s.

Rim

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): PCR 2019:14 CONSTRUCTION PRODUCTS, version 1.3.3, c-PCR-021 Furniture

PCR review was conducted by: The Technical Committee of the International EPD® System. Chair of the PCR review is Claudia A. Peña. The review panel may be contacted via info@environdec.com

Life Cycle Assessment (LCA)

LCA accountability: LCA Studio s.r.o.
Ing. Petra Kšenzíhová, Ing. et Ing. Tatiana Trecáková, PhD., prof. Ing. Vladimír Kočí, Ph.D., MBA
Šárecká 1962/5, 16000 Prague 6, Czech Republic, www.lcastudio.cz



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. Ing. Silvia Vilčeková, Ph.D., Silcert, s.r.o.

Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD:

RIM CZ a. s.
Dr. E. Beneše 1015,
765 02 Otrokovice, Czech Republic
+420 577 112 640
info@rim.cz

Contact:

Martin Nagy
mnagy@rim.cz

Description of the organisation:

RIM CZ was established in 1991 with a mission to craft chairs that captivate: ergonomic, functional, durable, and distinguished by high-quality design. For over 30 years, we have consistently achieved this goal.

Today, Czech-made chairs from RIM bring comfort to hundreds of thousands of individuals worldwide, enhancing their office experiences. While our product portfolio continually expands, the fundamental principles endure despite the changes of three decades.

At the core of our philosophy lies the commitment to the excellent ergonomics of each product. RIM chairs continue to be developed and manufactured in the Zlín Region through collaboration with international designers. The incorporation of quality materials, meticulous craftsmanship, unique design, and a steadfast commitment to ergonomics and sustainability has been our guiding ethos since the outset.

Product-related or management system-related certifications:

Our products are manufactured in ISO 9001, ISO 14001 and ISO 45001 certified facility.

Name and location of production site(s):

RIM CZ a. s. – Manufacturing plant Tlumačov
Mánesova 885
763 62 Tlumačov, Czech Republic

Product information

Product name:

Space

Product identification:

SP 1501

Product description:

This EPD has been created for the most extended product configuration of the Space SP 1501.

Premium ergonomic chair Space meets the strictest criteria for correct sitting. Designed by British designer Robin Platt, the chair provides dynamic sitting and maximum adjustability. Together with high quality components, a comfortable sit is guaranteed to any user.

Synchronous STE mechanism with seat depth adjustment and active seat and backrest tilt.

Height-adjustable backrest using one-touch system with a 700 mm range

Depth-adjustable lumbar support with a 25 mm range

4F multifunctional armrests – adjustable in height (115 mm), depth (70 mm), width (65 mm), and rotation 360°

Seat-depth adjustment 70 mm, tilt -3,9°

Seat-height adjustment 400–560 mm

Thanks to the reduced seat and telescopic gas unit with larger extent, the chair is appropriate for both petite and tall users.

Meets all requirements of EN 1335 Type Ax.

10-year warranty.

Technical specifications:

Weight	18,5 kg
Volume	0,24 m ³
Height	1020-1250 mm
Width	700 mm
Depth	700 mm

UN CPC code: 3814 Other furniture n.e.c.

Geographical scope: Global, Czech Republic

LCA information

Functional unit / declared unit: Declared unit used in this study is production of ergonomic chair provided function for 10 years. This function provides 1 ergonomic chair.

Reference service life: 15 years, according to warranty.

Time representativeness: Site specific data from producer are based on 1 year average for process data (reference year 2023). Time scope less than 10-years was applied for background data. Time scope less than 2-years was applied for specific data.

Database(s) and LCA software used: LCA for Experts (Sphera), Sphera database and ecoinvent database.

Description of system boundaries:

This EPD is based on system boundary cradle to gate, modules C1–C4, module D and with optional modules A4-A5.

The system boundary covers the production of raw materials, all relevant transport down to factory gate, manufacturing by RIM CZ, transport from the RIM CZ plant to the site (662 km) and installation of ergonomic chairs Space including product unpacking, transport of used ergonomic chairs Space, waste processing, recovery, and disposal of used ergonomic chairs.

System diagram:

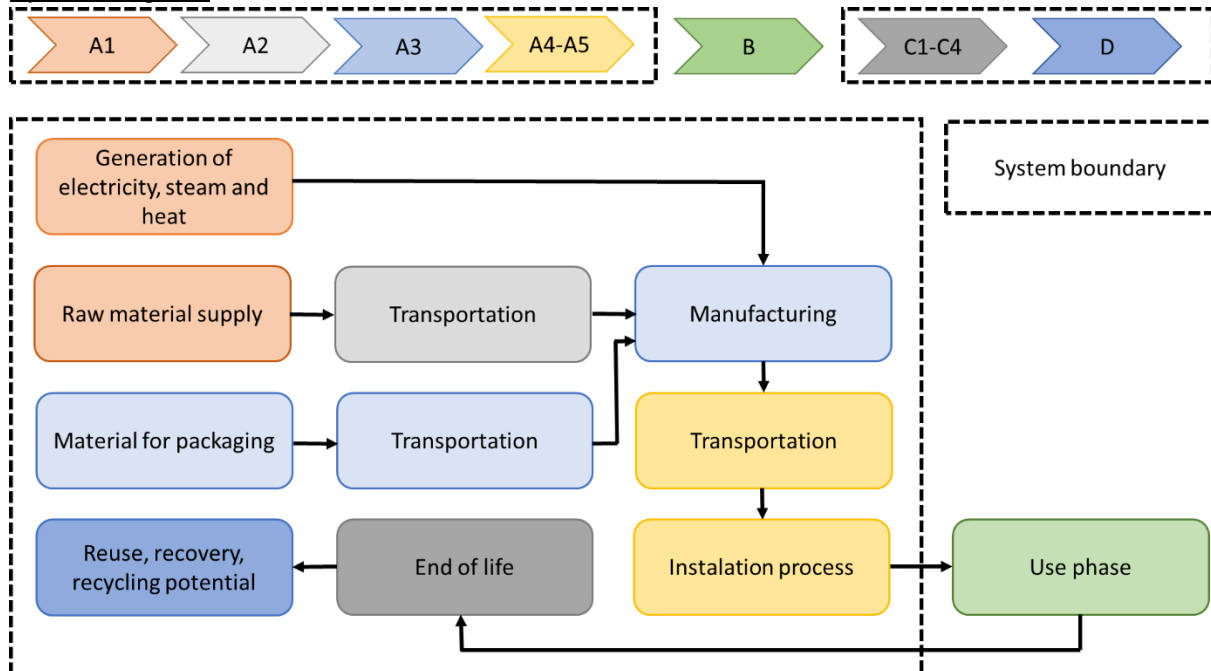


Figure 1 System boundary of the LCA study conducted on production of ergonomic chairs Space SP 1501

Cut off rules: The cut-off criterion was chosen based on the used PCR. According to the used PCR, more than 95 % of flows were included.

Allocations: Specific inputs and outputs were measured or calculated for specific product. The allocation of common inputs (thermal energy) and outputs (waste, emissions) is based on the general allocation rule what represents the proportion of production of every specific product in overall production expressed in pieces.

Secondary PA6+GF is used as a material for the production of ergonomic chairs. General content of steel scrap used in steel sheet production and in steel, cold and hot rolled production. No secondary fuels used during the production. Generic process data for the production of input materials and components were used.

Electricity mix: Generation of electricity consumed within RIM production was based on the Czech residual electricity grid mix. GWP-GHG indicator of the used residual electricity grid mix is 0,55 kg CO₂eq./kWh.

Characterisation factors: Characterisation factors are based on Environmental Footprint 3.1. (EF 3.1).

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Geography	GLO	GLO	CZ	GLO	GLO	NR	NR	NR	NR	NR	NR	NR	GLO	GLO	GLO	GLO	GLO
Specific data used	>90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
PA6+GF	8,0427	0	0
PA6+GF secondary	2,9175	97,35	0
Polyamide	0,3382	0	0
Polypropylene	1,4936	0	0
Thermoplastic elastomer	0,0170	0	0
Polyethylene	0,0024	0	0
Polyester	0,2225	0	0
Polyurethane	0,7760	0	0
Adhesive	0,0580	0	0

Polyoxymetylen	0,1737	0	0
Polyvinyl chloride	0,2309	0	0
Steel	2,6173	17,78	0
Steel secondary	0,8258	45,00	0
Thermoplastic polyolefin	0,0563	0	0
Thermoplastic polyurethane	0,2450	0	0
Thermoplastic rubber	0,1300	0	0
Wool	0,3050	0	0
Aluminium	0,0091	0	0
Rubber	0,0136	0	0
Lubricant	0,0039	0	0
Coating	0,0000	0	0
Paint	0,0098	0	0
Phenolic resin	0,0021	0	0
Zinc	0,0114	0	0
Pretreatment chemicals	0,0002	0	0
Nitrogen	0,0022	0	0
TOTAL	18,5042	19,87	0
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Paper	0,0146	0,08	0,26
Cardboard	3,6000	19,46	0,43
LDPE foil	0,1020	0,55	0
Polypropylene tape	0,0288	0,16	0
Steel	0,0160	0,09	0
TOTAL	3,7614	20,33	0,69

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per 1 ergonomic chair SP 1501
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No substances from the SVHC list to report.

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

Results per 1 ergonomic chair SP 1501									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	1,01E+02	1,41E+00	3,56E-01	0,00E+00	1,77E-01	2,62E+01	2,55E-03	-1,37E+01
GWP-biogenic	kg CO ₂ eq.	-5,13E+00	-2,09E-02	5,74E+00	0,00E+00	-2,62E-03	5,30E-01	-8,77E-05	-1,15E-02
GWP-luluc	kg CO ₂ eq.	4,04E-02	1,31E-02	1,25E-05	0,00E+00	1,64E-03	3,41E-04	8,04E-06	-1,16E-03
GWP-total	kg CO ₂ eq.	9,60E+01	1,40E+00	6,10E+00	0,00E+00	1,76E-01	2,67E+01	2,47E-03	-1,37E+01
ODP	kg CFC 11 eq.	4,09E-07	1,24E-13	2,21E-13	0,00E+00	1,55E-14	4,21E-12	6,65E-15	-4,45E-11
AP	mol H ⁺ eq.	3,80E-01	1,83E-03	3,93E-04	0,00E+00	2,30E-04	3,59E-02	1,83E-05	-1,49E-02
EP-freshwater	kg P eq.	6,06E-03	5,14E-06	6,62E-08	0,00E+00	6,46E-07	1,97E-06	5,22E-09	-2,78E-06
EP-marine	kg N eq.	1,15E-01	6,44E-04	1,40E-04	0,00E+00	8,09E-05	1,78E-02	4,74E-06	-4,67E-03
EP-terrestrial	mol N eq.	7,13E-01	7,73E-03	1,79E-03	0,00E+00	9,71E-04	2,00E-01	5,22E-05	-5,08E-02
POCP	kg NMVOC eq.	2,47E-01	1,59E-03	3,72E-04	0,00E+00	1,99E-04	4,55E-02	1,43E-05	-1,38E-02
ADP-minerals&metals*	kg Sb eq.	2,40E-04	9,16E-08	1,99E-09	0,00E+00	1,15E-08	4,29E-08	1,20E-10	-6,77E-07
ADP-fossil*	MJ	1,70E+03	1,92E+01	5,49E-01	0,00E+00	2,41E+00	1,49E+01	3,44E-02	-2,38E+02
WDP*	m ³	7,97E+01	1,63E-02	1,90E-01	0,00E+00	2,04E-03	3,11E+00	2,83E-04	-3,93E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Additional mandatory and voluntary impact category indicators

Results per 1 ergonomic chair SP 1501									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	1,02E+02	1,43E+00	3,56E-01	0,00E+00	1,79E-01	2,62E+01	2,57E-03	-1,37E+01
Particulate matter	Disease incidences	4,13E-06	1,22E-08	2,43E-09	0,00E+00	1,53E-09	1,14E-07	2,26E-10	-1,50E-07
Ionising radiation, human health	kBq U235 eq.	4,01E+00	3,59E-03	4,12E-03	0,00E+00	4,51E-04	7,90E-02	4,40E-05	-2,51E+00
Ecotoxicity fresh water	CTUe	2,44E+02	1,35E+01	2,64E-01	0,00E+00	1,70E+00	4,75E+00	2,16E-02	-1,30E+01
Human toxicity, cancer	CTUh	-1,86E-07	2,72E-10	1,56E-11	0,00E+00	3,42E-11	3,18E-10	2,89E-12	-3,73E-09
Human toxicity, non-cancer	CTUh	1,09E-06	1,20E-08	6,77E-10	0,00E+00	1,51E-09	1,30E-08	3,05E-10	-5,53E-08
Land Use	Pt	1,08E+03	8,00E+00	1,52E-01	0,00E+00	1,00E+00	2,70E+00	8,69E-03	-8,81E+00

Resource use indicators

Results per 1 ergonomic chair SP 1501									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	2,25E+02	1,36E+00	1,32E-01	0,00E+00	1,70E-01	2,29E+00	5,63E-03	-1,36E+01
PERM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,25E+02	1,36E+00	1,32E-01	0,00E+00	1,70E-01	2,29E+00	5,63E-03	-1,36E+01
PENRE	MJ	1,70E+03	1,92E+01	5,50E-01	0,00E+00	2,41E+00	1,49E+01	3,45E-02	-2,38E+02
PENRM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,70E+03	1,92E+01	5,50E-01	0,00E+00	2,41E+00	1,49E+01	3,45E-02	-2,38E+02
SM	kg	3,69E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,97E+00	1,50E-03	4,47E-03	0,00E+00	1,88E-04	7,35E-02	8,69E-06	-2,41E-02
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

Waste indicators

Results per 1 ergonomic chair SP 1501									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	6,94E-06	7,12E-11	1,39E-11	0,00E+00	8,93E-12	1,59E-09	7,42E-13	-2,93E-08
Non-hazardous waste disposed	kg	7,43E-01	2,77E-03	6,99E-02	0,00E+00	3,48E-04	1,79E+00	1,72E-01	-7,66E-02
Radioactive waste disposed	kg	9,34E-03	2,49E-05	2,66E-05	0,00E+00	3,12E-06	5,90E-04	3,87E-07	-1,71E-02

Output flow indicators

Results per 1 ergonomic chair SP 1501									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	1,35E+00	0,00E+00	3,63E+00	0,00E+00	0,00E+00	3,44E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	1,03E+00	0,00E+00	0,00E+00	1,50E+01	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,27E+01
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,11E+02

Conversion factor 0,0540 enable the conversion of results per 1 ergonomic chair to 1 kg.

References

General Programme Instructions of the International EPD[®] System. Version 4.1.

Product Category Rules (PCR) document for Construction Products (PCR 2019:14 Version 1.3.3 2024-12-20)

c-PCR-021 Furniture (EPD-Norge, NPCR 026 Version 2.0 2022-09-29)

ISO 14020:2000 Environmental labels and declarations — General principles, 2000-09

ISO 14025: EN ISO 14025:2006-11: Environmental labels and declarations - Type III environmental declarations — Principles and procedures

ISO 14040:2006 Environmental management — Life cycle assessment — Principles and framework, 2006-07

ISO 14044:2006 Environmental management — Life cycle assessment — Requirements and guidelines, 2006-07

EN 15804+A2:2019/AC:2021 European Committee for Standardization: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products, 2021

Ecoinvent: www.ecoinvent.org, ecoinvent database.

Sphera: software LCA for Experts. 2023, Sphera solutions, www.sphera.com

