

Environmental Product Declaration

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

MOVE IT track surface|suspended

from XAL GmbH

Programme:

The International EPD® System www.environdec.com

Programme operator:

EPD International AB

EPD registration number: S-P-09447

 Publication date:
 2023-05-31

 Revision date:
 2023-06-22

 Valid until:
 2028-05-30



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







Programme information

Programme: The International EPD®

System

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Sweden

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E-mail: info@environdec.com

Differences versus previous versions

Revision of one the components. Instead of Polyvinylchloride, a Polycarbonate and a Acrylnitril-Butadien-Styrol-Copolymer mix is used. Material composition and results for environmental indicators have been updated to reflect these changes.



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 v.1.2.4 Construction products, valid until 2024-12-20, UN CPC code(s) – 46539 Other electric lamps and lighting fittings (including lamps and lighting fittings of a kind used for lighting public open spaces or thorough-fares)

PCR review was conducted by: The Technical Committee of the International EPD® System, Chair of the PCR review: Claudia A. Peña, info@environdec.com

Life Cycle Assessment (LCA)

LCA accountability: XAL GmbH, Auer-Welsbach-Gasse 36, 8055 Graz, Austria

Third-party verification

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



Third party verifier: Prof. Ing. Vladimír Kočí, Ph.D., MBA LCA Studio Šárecká 5, 16000 Prague 6 - Czech Republic www.lcastudio.cz

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.

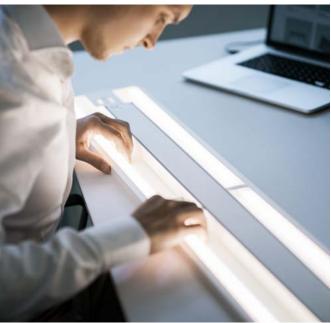
EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For further information about comparability, see EN 15804 and ISO 14025.

Owner of the EPD

XAL GmbH Auer-Welsbach-Gasse 36 8055 Graz AUSTRIA

epd@xal.com





Description of the organisation

XAL is an internationally operating manufacturer of high-end luminaires and lighting solutions for shop, office, hotel and residential lighting. The headquarters of our company, which was founded in 1989, is located in Graz with production sites and sales subsidiaries in 15 countries and catering to projects worldwide.

It all begins with a passion for light. For 30 years, XAL has been working with lighting designers, architects and planner to develop custom luminaires of the highest technical standard, which impress with their style and aesthetics. There is always one goal: to push the boundaries of the technically feasible, enabling visionary designs. We can meet this challenge because our employees in our design labs as well as production and sales locations around the world deliver top performance. Being on-site for our customers is essential for mutual success. Thanks to organisational efficiency and high inhouse production depth, we can tailor our response to the needs of our customers and continuously expand our existing product portfolio. Meeting seemingly impossible challenges is our daily motivation and inspiration. From novel concept to luminaire innovation: a path created by crossing borders. SEE THE LIGHT.

Product-related or management system-related certifications

XAL is certified according to several management and CSR standards.

- ISO 9001 Quality management systems
- ISO 14001 Environmental management systems
- ISO 45001 Occupational health and safety management systems
- Ecovadis regular evaluation of our corporate social responsibility based on objective criteria with a focus on the environment, labour and human rights, ethics and responsible procurement.
- UN Global Compact initiative our interactions with each other and our stakeholders, our supply chain management and our resource strategies are guided by the principles of the UN Global compact.

Name and location of production site(s):

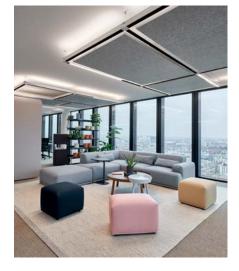
The production site is located in Murska Sobota (XAL Svetila d.o.o., Slovenia), some parts are processed at Dongguan (To Be Lighting Co. Ltd., China).

More information: xal.com









Product name

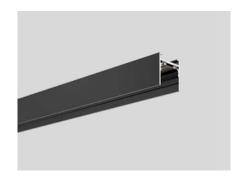
MOVE IT track surface/ suspended

Product identification

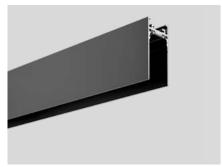
The sleek MOVE IT track system has revolutionised track systems. No tools are required, as insets are installed using magnets, which gives you the flexibility to combine them in a variety of ways. The streamlined spots make for an especially elegant system.

This EPD covers several variations of our MOVE IT track surface/suspended

The EPD covers the different variants of our MOVE IT track in the surface and suspended versions.



MOVE IT 25 S track surface / suspended



MOVE IT 25 track surface / suspended



MOVE IT 45 track surface / suspended





Product description

Extruded aluminium profile with 28 or 45 mm width groove; for wall-/ceiling surface mounting or suspended mounting (cable suspension, height adjustment without tools, incl. black feed); for lighting systems; linear, 90° angle connectors or 90° CURVE segment; node connectors, up to 6 profile connection options; with power track profile for take off of supply voltage and DALI signal; surf. anod. or powder coated; insets can be installed flexibly and without tools by means of magnetic holders+locking; sound absorbing accessories available.

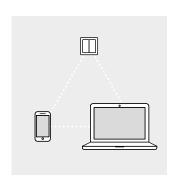


The products covered by this EPD are not only thoroughly tested in our externally accredited in-house facilities but are also third-party tested: CB and ENEC are available.

UN CPC code:

- UN CPC Version 2.1
- 46539

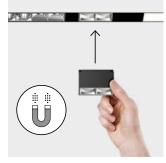
Other electric lamps and lighting fittings (including lamps and lighting fittings of a kind used for lighting public open spaces or thorough-fares)



Control OptionsEasy control of the luminaires



Optical AccessoriesAccessories to adjust the luminaires



Magnetic Mounting Installation and assembly are quick and easy



Functional unit / declared unit

The declared unit is one meter of the MOVE IT track surface/suspended, including accessories weighted based on the sales volume. The MOVE IT track surface/suspended has three different types (25, 25S and 45). There is also a DALI version for the MOVE IT track which features a PCB. Weight wise this PCB is insignificant, it has been however included in the assessment using a sales based approach. Product packaging is included in the assessment and the manufacturing step is done in Murska Sobota in Slovenia.

The 25, 25S and 45 version use the same material and production technology, but there are differences in weight for the aluminium profile and packaging. Results can be scaled for the different types of the MOVE IT track surface/suspended. The conversion factors for the different types are available in the Annex.

Reference service life:

13.25 years

Time representativeness: 2023

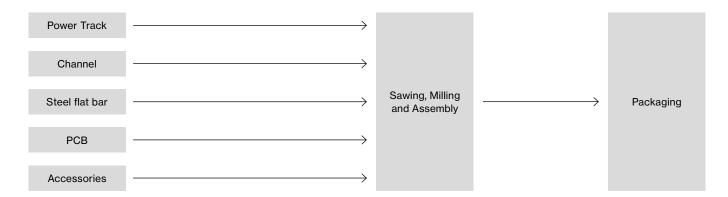
Database(s) and LCA software used:

GaBi 10.7.0.183

Description of system boundaries:

Cradle to gate with options: modules A1-A3, C1-C4, D and optional modules A4, A5 and B6.

System boundaries



Product stage (A1-A3)

Raw materials are found in the components used for the production of the MOVE IT track surface/suspended. The raw materials and the necessary process steps have been modelled using GaBi. The components are delivered to Murska Sobota, where the track is assembled. For the assembly electricity is needed for which the corresponding electricity mix, which is used in Murska sobota, has been simulated in the model. Transportation of all the components is incorporated. For the components which are delivered from China, aggregated data has been used, since transportation involved various routes and transport vehicles. Packaging for the components is been accounted for using a worst-case approach.

Transport to building (A4)

Transport is modelled for countries where the sales share is more than >4% and modelled to the capital cities (Berlin, Copenhagen, Zurich, London, Vienna, Rome and Stockholm).

Installation into building (A5)

No emissions occur during the installation. This module includes the waste treatment of the packaging.

Use phase (B6)

No emissions occur during usage.

End-of-life stage (C1-C4)

MOVE IT track surface/suspended presumed to be decomposed manually, therefore no emissions should occur. For the corresponding waste destinations, the following distances are used:

- To recycling facility 250 km
- To incineration facility 50 km
- To landfill 100 km for metal and electronic parts, 20 km for plastic parts and packaging waste

Based on official statistics and literature, waste treatment options are taken into account for Europe and rest of the world countries.

Module D

According to the guidelines of EN 15804+A2 and the PCR from EPD International, calculations are made for Module D. The loads and benefits result from the export of secondary materials and the energy which comes from incineration and landfilling. In Module D also the benefits from the product packaging waste are included.



Cut-off rule

Consistent with the PCR, a minimum of 95% of total inflows (mass and energy) are included. In addition, materials and processes with insignificant contributions of less than 1% are also included. For the use and end-of-life stage, scenarios are used, factoring in geographical conditions (such as electricity mix) and applications (waste treatment practices).

Electricity grid

For the manufacturing in Murska Sobota, Slovenia, the corresponding electricity grid mix as stated on the invoice is used: Coal (46.27%), Natural Gas (19.11%), Nuclear Power (12.47%), Hydro (10.23%), Other fossils (6.42%), Solar (2.43%), Bioenergy (1.98%), Oil (0.73%) and Wind (0.36%).

Data quality

Based on site specific information, this LCA study reflects the production for 2022. Components are supplied by external vendors, therefore manufacturing processes are modelled using GaBi, with the best fitting representative geographical conditions and applications.

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

	Pro	oduct sta	age		ruction s stage			l	Use stage	e				End of lif	e stage		red	source covery 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-Recov-	ery-Recycling- potential
Module	A1	A2	АЗ	A4	A5	B1	B2	В3	В4	В5	В6	B7	C1	C2	СЗ	C4		D
Modules declared	х	х	х	х	х						х		х	х	х	х		х
Geography	GLO	GLO	SLO	RER	RER- RoW						RER CHN		RER- RoW	RER- RoW	RER- RoW	RER- RoW		RER- RoW
Specific data used		>909	% GWP	-GHG		-	-	-	-	-	-	-	-	-	-	-		-
Variation – products		<10% GWP-GHG difference between product versions				-	-	-	-	-	-	-	-	-	-	-		-
Variation – sites		0%			-	-	-	-	-	-	-	-	-	-	-		-	
Acronyms	GLO = Global, RER = Europe, RoW = Rest of the world, SLO = Slovenia																	



Product components	Weight, kg	Weight-% (versus total weight)	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Aluminium	1.05E+00	64.67%	20%	0%
Polycarbonate	2.40E-01	14.75%	0%	0%
Steel	2.17E-01	13.31%	25%	0%
Acrylnitril-Butadien-Styrol-Copolymere (ABS)	8.05E-02	4.94%	0%	0%
Zinc	1.52E-02	0.93%	0%	0%
Polyester-Resin	7.76E-03	0.48%	0%	0%
Copper	7.13E-03	0.44%	0%	0%
Epoxy resin	1.84E-03	0.11%	0%	0%
Glass fibers	1.83E-03	0.11%	0%	0%
Polyester	1.07E-03	0.07%	0%	0%
Polyvinyl chloride (PVC)	8.68E-04	0.05%	0%	0%
Polurethane Foam	6.48E-04	0.04%	0%	0%
Tin	4.31E-04	0.03%	0%	0%
Polyoxymethylen	3.52E-04	0.02%	0%	0%
Calcium carbonate (CaCO3)	3.07E-04	0.02%	0%	0%
Diisononyl phthalate (DINP)	2.44E-04	0.01%	0%	0%
Polyamide	2.42E-04	0.01%	0%	0%
Polyethylene terephthalate fibres	1.00E-04	0.01%	0%	0%
Unsaturated polyester (UP)	5.66E-05	0.00%	0%	0%
Calcium zinc stearate (Ca/Zn)	2.08E-05	0.00%	0%	0%
Silver in alloy	1.35E-05	0.00%	0%	0%
Tetrabromobisphenol A (TBBA)	7.35E-06	0.00%	0%	0%
Nickel in alloy	1.04E-07	0.00%	16.26%	0%
Chromium in alloy	4,33E-08	0,00%		

Packaging materials	Weight, kg	Weight-% (versus total weight)	Weight biogenic carbon, kg C/kg
Corrugated paper	2.24E-01	13.75%	2.16E-01
Paper	6.72E-02	4.12%	3.70E-02
TOTAL	2.91E-01	17.87%	2.53E-01

The products do not contain any REACH and RoHS SVHC substances in amounts greater than 0.1% (1000 ppm).

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit

					Tot.								
Indicator	Unit	A1	A2	А3	A1-A3	A4	A5	В6	C1	C2	СЗ	C4	D
GWP-fossil	kg CO₂ eq.	1.30E+01	3.03E-01	1.48E+00	1.48E+01	2.81E-01	1.99E-02	0.00E+00	0.00E+00	3.10E-02	1.29E+00	1.06E-02	-8.62E+00
GWP-biogenic	kg CO₂ eq.	-9.55E-01	-2.15E-03	2.01E-04	-9.56E-01	-2.02E-01	3.02E-01	0.00E+00	0.00E+00	-4.34E-04	1.24E-03	-1.23E-04	-7.81E-01
GWP-luluc	kg CO₂ eq.	4.92E-03	1.47E-03	6.57E-05	6.45E-03	2.15E-03	6.56E-05	0.00E+00	0.00E+00	2.84E-04	3.99E-04	1.05E-05	-1.46E-03
GWP-total	kg CO₂ eq.	1.21E+01	3.03E-01	1.48E+00	1.38E+01	8.14E-02	3.22E-01	0.00E+00	0.00E+00	3.08E-02	1.29E+00	1.05E-02	-9.40E+00
ODP	kg CFC 11 eq.	7.46E-10	2.77E-14	7.96E-13	7.46E-10	6.71E-13	3.86E-14	0.00E+00	0.00E+00	2.69E-15	1.75E-12	1.70E-14	-9.41E-12
AP	mol H⁺ eq.	5.67E-02	1.12E-03	2.06E-03	5.99E-02	5.51E-04	1.38E-04	0.00E+00	0.00E+00	4.40E-05	1.61E-03	3.32E-05	-2.69E-02

Environmental information



Results per functional or declared unit

				Tot.								
Unit	A 1	A2	А3	A1-A3	A4	A5	В6	C1	C2	C3	C4	D
kg P eq.	1.05E-04	5.98E-07	4.62E-07	1.07E-04	1.01E-06	3.74E-07	0.00E+00	0.00E+00	1.12E-07	7.25E-07	9.37E-09	-4.17E-06
kg N eq.	9.06E-03	4.21E-04	4.25E-04	9.90E-03	1.97E-04	6.44E-05	0.00E+00	0.00E+00	1.62E-05	6.34E-04	8.35E-06	-4.87E-03
mol N eq.	9.67E-02	4.69E-03	4.64E-03	1.06E-01	2.26E-03	7.04E-04	0.00E+00	0.00E+00	1.92E-04	7.09E-03	9.18E-05	-5.33E-02
kg NMVOC eq.	2.70E-02	1.13E-03	1.31E-03	2.95E-02	5.65E-04	1.74E-04	0.00E+00	0.00E+00	3.86E-05	1.81E-03	2.61E-05	-1.48E-02
kg Sb eq.	1.73E-04	1.08E-08	2.57E-08	1.73E-04	2.10E-08	8.15E-10	0.00E+00	0.00E+00	1.98E-09	5.38E-08	2.86E-10	-1.29E-06
MJ	1.94E+02	4.15E+00	1.79E+01	2.16E+02	4.03E+00	2.19E-01	0.00E+00	0.00E+00	4.17E-01	7.14E+00	1.54E-01	-1.21E+02
m³	2.41E+00	1.93E-03	1.23E-02	2.43E+00	1.22E-02	2.73E-02	0.00E+00	0.00E+00	3.54E-04	9.58E-02	-1.32E-04	-4.50E-01
	kg P eq. kg N eq. mol N eq. kg NMVOC eq. kg Sb eq.	kg P eq. 1.05E-04 kg N eq. 9.06E-03 mol N eq. 9.67E-02 kg NMVOC eq. 2.70E-02 kg Sb eq. 1.73E-04 MJ 1.94E+02	kg P eq. 1.05E-04 5.98E-07 kg N eq. 9.06E-03 4.21E-04 mol N eq. 9.67E-02 4.69E-03 kg NMVOC eq. 2.70E-02 1.13E-03 kg Sb eq. 1.73E-04 1.08E-08 MJ 1.94E+02 4.15E+00	kg P eq. 1.05E-04 5.98E-07 4.62E-07 kg N eq. 9.06E-03 4.21E-04 4.25E-04 mol N eq. 9.67E-02 4.69E-03 4.64E-03 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 MJ 1.94E+02 4.15E+00 1.79E+01	Unit A1 A2 A3 A1-A3 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 1.73E-04 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02	Unit A1 A2 A3 A1-A3 A4 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 kg NMVOC eq. 2.70E-02 113E-03 1.31E-03 2.95E-02 5.65E-04 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 1.73E-04 2.10E-08 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+00	Unit A1 A2 A3 A1-A3 A4 A5 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 1.73E-04 2.10E-08 8.15E-10 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+00 2.19E-01	Unit A1 A2 A3 A1-A3 A4 A5 B6 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 0.00E+00 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 0.00E+00 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 0.00E+00 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 0.00E+00 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+00 2.19E-01 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 0.00E+00 0.00E+00 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 0.00E+00 0.00E+00 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 0.00E+00 0.00E+00 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 0.00E+00 0.00E+00 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+00 2.19E-01 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 0.00E+00 0.00E+00 1.12E-07 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 0.00E+00 0.00E+00 1.62E-05 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 0.00E+00 0.00E+00 1.92E-04 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 0.00E+00 0.00E+00 3.86E-05 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 1.73E-04 2.10E-08 8.15E-10 0.00E+00 0.00E+00 1.98E-09 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+02 2.19E-01 0.00E+00 0.00E+00 4.17E-01	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 0.00E+00 0.00E+00 1.12E-07 7.25E-07 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 0.00E+00 0.00E+00 1.62E-05 6.34E-04 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 0.00E+00 0.00E+00 1.92E-04 7.09E-03 kg NMVOC eq. 2.70E-02 113E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 0.00E+00 0.00E+00 3.86E-05 1.81E-03 kg Sb eq. 1.73E-04 1.08E-08 2.57E-08 1.73E-04 2.10E-08 8.15E-10 0.00E+00 0.00E+00 1.98E-09 5.38E-08 MJ 1.94E+02 4.15E+00 1.79E+01 2.16E+02 4.03E+00 2.19E-01 0.00E+00 0.00E+00 4.17E-01	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 C4 kg P eq. 1.05E-04 5.98E-07 4.62E-07 1.07E-04 1.01E-06 3.74E-07 0.00E+00 0.00E+00 1.12E-07 7.25E-07 9.37E-09 kg N eq. 9.06E-03 4.21E-04 4.25E-04 9.90E-03 1.97E-04 6.44E-05 0.00E+00 0.00E+00 1.62E-05 6.34E-04 8.35E-06 mol N eq. 9.67E-02 4.69E-03 4.64E-03 1.06E-01 2.26E-03 7.04E-04 0.00E+00 0.00E+00 1.92E-04 7.09E-03 9.18E-05 kg NMVOC eq. 2.70E-02 1.13E-03 1.31E-03 2.95E-02 5.65E-04 1.74E-04 0.00E+00 0.00E+00 3.86E-05 1.81E-03 2.61E-05 kg Sb eq. 1.73E-04 1.73E-04 2.10E-08 8.15E-10 0.00E+00 0.00E+00 1.98E-09 5.38E-08 2.86E-10 MJ 1.94E+02 4.15E+00 1.79E+01 4.03E+02 2.19E-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

Potential environmental impact – additional mandatory and voluntary indicators

Results per functional or declared unit

				Tot.								
Unit	A 1	A2	А3	A1-A3	A4	A5	В6	C1	C2	СЗ	C4	D
kg CO₂ eq.	1.30E+01	3.05E-01	1.48E+00	1.48E+01	2.83E-01	2.00E-02	0.00E+00	0.00E+00	3.13E-02	1.29E+00	1.06E-02	-8.62E+00
disease inc.	6.45E-07	9.77E-09	1.36E-08	6.69E-07	3.24E-08	5.94E-10	0.00E+00	0.00E+00	3.54E-10	1.42E-08	3.59E-10	-2.79E-07
kg U235-EQ	1.86E+00	5.04E-04	8.56E-02	1.94E+00	4.03E-03	8.71E-04	0.00E+00	0.00E+00	7.81E-05	4.02E-02	2.64E-04	-1.71E+00
CTUe	1.41E+02	2.54E+00	3.47E+00	1.47E+02	2.43E+00	1.37E-01	0.00E+00	0.00E+00	2.91E-01	1.42E+00	4.39E-02	-4.09E+01
CTUh	7.30E-08	4.80E-11	1.89E-10	7.32E-08	6.69E-11	5.14E-12	0.00E+00	0.00E+00	5.92E-12	8.20E-11	5.45E-12	-4.31E-09
CTUh	8.53E-06	2.30E-09	3.62E-09	8.54E-06	2.74E-09	3.63E-10	0.00E+00	0.00E+00	3.14E-10	6.32E-09	5.44E-10	-1.40E-07
dimension- less	4.24E+01	9.02E-01	4.45E-01	4.38E+01	6.05E+01	6.46E-02	0.00E+00	0.00E+00	1.74E-01	1.21E+00	1.44E-02	1.18E+02
	kg CO₂ eq. disease inc. kg U235-EQ CTUe CTUh CTUh dimension-	kg CO ₂ eq. 1.30E+01 disease inc. 6.45E-07 kg U235-EQ 1.86E+00 CTUe 1.41E+02 CTUh 7.30E-08 CTUh 8.53E-06 dimension- 4.24E+01	kg CO ₂ eq. 1.30E+01 3.05E-01 disease inc. 6.45E-07 9.77E-09 kg U235-EQ 1.86E+00 5.04E-04 CTUe 1.41E+02 2.54E+00 CTUh 7.30E-08 4.80E-11 CTUh 8.53E-06 2.30E-09 dimension- 4.24E+01 9.02E-01	kg CO ₂ eq. 1.30E+01 3.05E-01 1.48E+00 disease inc. 6.45E-07 9.77E-09 1.36E-08 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 CTUe 1.41E+02 2.54E+00 3.47E+00 CTUh 7.30E-08 4.80E-11 1.89E-10 CTUh 8.53E-06 2.30E-09 3.62E-09 dimension- 4.24E+01 9.02E-01 4.45E-01	Unit A1 A2 A3 A1-A3 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 dimension- 4.24E+01 9.02E-01 4.45E-01 4.38E+01	Unit A1 A2 A3 A1-A3 A4 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 dimension- 4.24E+01 9.02E-01 4.45E-01 4.38E+01 6.05E+01	Unit A1 A2 A3 A1-A3 A4 A5 kg CO ₂ eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 dimension- 4.24E+01 9.02E-01 4.45E-01 4.38E+01 6.05E+01 6.46E-02	Unit A1 A2 A3 A1-A3 A4 A5 B6 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 dimension- 4.24E+01 9.02E-01 4.45E-01 4.38E+01 6.05E+01 6.46E-02 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 0.00E+00 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 0.00E+00 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 0.00E+00 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 0.00E+00 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 0.00E+00 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 0.00E+00 3.13E-02 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 0.00E+00 3.54E-10 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 0.00E+00 7.81E-05 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 0.00E+00 2.91E-01 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 0.00E+00 5.92E-12 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 0.00E+00 0.00E+00 3.14E-10	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 kg CO2 eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 0.00E+00 3.13E-02 1.29E+00 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 0.00E+00 3.54E-10 1.42E-08 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 0.00E+00 7.81E-05 4.02E-02 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 0.00E+00 2.91E-01 1.42E+00 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 0.00E+00 5.92E-12 8.20E-11 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 0.00E+00 0.00E+00 3.14E-10 <t< td=""><td>kg CO₂ eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 0.00E+00 3.13E-02 1.29E+00 1.06E-02 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 0.00E+00 3.54E-10 1.42E-08 3.59E-10 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 0.00E+00 7.81E-05 4.02E-02 2.64E-04 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 0.00E+00 2.91E-01 1.42E+00 4.39E-02 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 0.00E+00 5.92E-12 8.20E-11 5.45E-12 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 0.00E+00 0.00E+00 3.14E-10 6.32E-09 5.44E-10</td></t<>	kg CO ₂ eq. 1.30E+01 3.05E-01 1.48E+00 1.48E+01 2.83E-01 2.00E-02 0.00E+00 0.00E+00 3.13E-02 1.29E+00 1.06E-02 disease inc. 6.45E-07 9.77E-09 1.36E-08 6.69E-07 3.24E-08 5.94E-10 0.00E+00 0.00E+00 3.54E-10 1.42E-08 3.59E-10 kg U235-EQ 1.86E+00 5.04E-04 8.56E-02 1.94E+00 4.03E-03 8.71E-04 0.00E+00 0.00E+00 7.81E-05 4.02E-02 2.64E-04 CTUe 1.41E+02 2.54E+00 3.47E+00 1.47E+02 2.43E+00 1.37E-01 0.00E+00 0.00E+00 2.91E-01 1.42E+00 4.39E-02 CTUh 7.30E-08 4.80E-11 1.89E-10 7.32E-08 6.69E-11 5.14E-12 0.00E+00 0.00E+00 5.92E-12 8.20E-11 5.45E-12 CTUh 8.53E-06 2.30E-09 3.62E-09 8.54E-06 2.74E-09 3.63E-10 0.00E+00 0.00E+00 3.14E-10 6.32E-09 5.44E-10

Acronyms

PM = particulate matter emissions. IRP-HE = ionizing radiation potential-human exposure. ETP-fw = ecotoxicity (freshwater). HTP-c = human toxicity potential. cancer effects. HTP-nc = human toxicity potential. non-cancer effects. SQP = land use related impacts

^{*} 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.

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.



Use of resources

Results per functional or declared unit

•					Tot.								
Indicator	Unit	A1	A2	А3	A1-A3	A4	A5	В6	C1	C2	C3	C4	D
PERE	MJ	7.80E+01	1.58E-01	2.67E+00	8.08E+01	3.03E+00	3.13E-02	0.00E+00	0.00E+00	2.95E-02	1.30E+00	1.39E-02	-1.86E+01
PERM	MJ	0.00E+00											
PERT	MJ	7.80E+01	1.58E-01	2.67E+00	8.08E+01	3.03E+00	3.13E-02	0.00E+00	0.00E+00	2.95E-02	1.30E+00	1.39E-02	-1.86E+01
PENRE	MJ	1.94E+02	4.16E+00	1.79E+01	2.16E+02	4.04E+00	2.20E-01	0.00E+00	0.00E+00	4.18E-01	7.14E+00	1.54E-01	-1.21E+02
PENRM	MJ	0.00E+00											
PENRT	MJ	1.94E+02	4.16E+00	1.79E+01	2.16E+02	4.04E+00	2.20E-01	0.00E+00	0.00E+00	4.18E-01	7.14E+00	1.54E-01	-1.21E+02
SM	kg	0.00E+00											
RSF	MJ	0.00E+00											
NRSF	MJ	0.00E+00											
FW	m³	1.59E-01	1.74E-04	1.95E-03	1.61E-01	5.65E-04	6.51E-04	0.00E+00	0.00E+00	3.25E-05	2.91E-03	1.93E-06	-7.18E-02

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRT = Total use of renewable primary energy resources; PENRE = 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 not fresh water

Waste production and output flows

Waste production

Results per functional or declared unit

					Tot.								
Indicator	Unit	A1	A2	А3	A1-A3	A4	A5	В6	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1.95E-06	9.88E-12	2.97E-10	1.95E-06	-5.19E-11	8.03E-12	0.00E+00	0.00E+00	1.55E-12	1.46E-08	1.27E-11	-4.95E-08
Non-hazardous waste disposed	kg	2.79E+00	3.85E-04	2.46E-02	2.82E+00	7.96E-04	3.43E-02	0.00E+00	0.00E+00	6.03E-05	2.24E-01	2.23E-01	-1.77E+00
Radioactive waste disposed	kg	9.78E-03	3.52E-06	1.17E-03	1.10E-02	3.68E-05	5.47E-06	0.00E+00	0.00E+00	5.41E-07	2.82E-04	1.79E-06	-7.90E-03

Output flows

Results per functional or declared unit

				iot.								
Unit	A1	A2	А3	A1-A3	A4	A5	В6	C1	C2	C3	C4	D
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00
kg	0.00E+00	0.00E+00	4.08E-01	4.08E-01	0.00E+00	2.23E-01	0.00E+00	0.00E+00	0.00E+00	1.07E+00	0.00E+00	0.00E+00
kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-01	0.00E+00	0.00E+00	0.00E+00	3.39E-01	0.00E+00	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	kg kg kg MJ	kg 0.00E+00 kg 0.00E+00 kg 0.00E+00 MJ 0.00E+00	kg 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 MJ 0.00E+00 0.00E+00	kg 0.00E+00 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 4.08E-01 kg 0.00E+00 0.00E+00 0.00E+00 MJ 0.00E+00 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 4.08E-01 4.08E-01 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 MJ 0.00E+00 0.00E+00 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 A4 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 4.08E-01 4.08E-01 0.00E+00 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 MJ 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 kg 0.00E+00 0.00E+00 4.08E-01 4.08E-01 0.00E+00 2.23E-01 kg 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.57E-01 MJ 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	Unit A1 A2 A3 A1-A3 A4 A5 B6 kg 0.00E+00 0.00E+00 <td< td=""><td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 kg 0.00E+00 0.00E</td><td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 kg 0.00E+00 0.00E+00<td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 kg 0.00E+00 1.07E+00 kg 0.00E+00 0.00</td><td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 C4 kg 0.00E+00 <</td></td></td<>	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 kg 0.00E+00 0.00E	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 kg 0.00E+00 0.00E+00 <td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 kg 0.00E+00 1.07E+00 kg 0.00E+00 0.00</td> <td>Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 C4 kg 0.00E+00 <</td>	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 kg 0.00E+00 1.07E+00 kg 0.00E+00 0.00	Unit A1 A2 A3 A1-A3 A4 A5 B6 C1 C2 C3 C4 kg 0.00E+00 <

Additional environmental information



Reference service life (per application)

	Office	Hospital	Hotel	Restaurant	Retail
RSL, years	60	0	15	15	10

End-of-Life (C1-C4)

MOVE IT track 45 surface/suspended	Unit
1.630	kg
0	kg
0	kg
1.070	kg
0.337	kg
0.223	kg
	0 0 0 1.070 0.337

Module D

Scenario (contributing materials, incl. packaging)	MOVE IT track 45 surface/suspended	Unit
Materials for recycling	1.291	Unit
Materials for export of secondary fuels	0	kg
Materials for incineration	0.368	kg
Materials for landfilling	0.263	kg

Annex

The conversion factor can be used for the other MOVE IT track surface/suspended variations. The different MOVE IT track surface/suspended variations use the same materials and components. For this reason, the increase of environmental impact can be scaled using the given conversion factors.

MOVE IT Track		A1 – A3: Production	A4: Transport	A5: Installation	C1-C4: End of life	D: Resource - recovery
	25S	0.62	0.25	1	0.65	0.56
surface/ suspended	25	0.84	0.69	1	0.86	0.82
	45	1	1	1	1	1

References



General Programme Instructions of the International EPD® System. Version 4.0.

Product category rules (PCR) 2019:14 Construction products version 1.2.5, 2022, The EPD International, 2022

EN 15804:2012+A2:2029 Sustainability of construction works — Environmental product declarations - Core rules for the product category of construction products

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ISO 14040 Environmental management – Life cycle assessment – Principles and framework

ISO 14044 Environmental management – Life cycle assessment – Requirements and guidelines

GaBi 10.7.0.183

Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE)

European court of auditors, EU actions and existing challenges on electronic waste, Review No. 4, 2021

Photos

p. 2 The Raum Bolzano, IT -

by bergundtal gmbh, photography by rené riller fotografie

p. 4 Aertssen Group Beveren, BE -

by Mertens Architecten, photography by photojoris Joris Van Deuneghem and Kris Dekeijser

Gwerder Fidel Energietechnik AG Ibach, CH -

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