ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	SWARCO AG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-SWA-20260406-CBA1-EN
Issue date	19.06.2026
Valid to	18.06.2031

MEGALUX-BEADS retroreflective glass beads
SWARCO

Institut Bauen und Umwelt e.V.

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swarco
Road Marking Systems

ECO PLATFORM
EPD
VERIFIED

Road Marking Systems

General Information

SWARCO

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-SWA-20260406-CBA1-EN

This declaration is based on the product category rules:

Glass beads for road marking systems, 01.08.2025
(PCR checked and approved by the SVR)

Issue date

19.06.2026

Valid to

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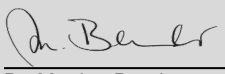
Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Dr. Martina Bender
(Managing Director Institut Bauen und Umwelt e.V.)

MEGALUX-BEADS retroreflective glass beads

Owner of the declaration

SWARCO AG
Blattenwaldweg 8
6112 Wattens
Austria

Declared product / declared unit

MEGALUX-BEADS retroreflective glass beads

Scope:

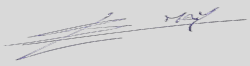
This Environmental Product Declaration (EPD) covers MEGALUX-BEADS retroreflective glass beads, a product designed to improve durability and visibility of road markings, especially at night and in wet conditions. Due to their crystal-clear surface and dimensions, MEGALUX-BEADS contribute significantly to road safety by enhancing the retroreflective performance of road marking systems.

The product is manufactured exclusively at the production site of SWARCO Schönborn GmbH in Schönborn, Germany. The environmental data used in this EPD refer to the year 2024 and represent 100 % of the annual production volume at this location.
The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidence.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard is abbreviated as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR
Independent verification of the declaration and data according to ISO 14025:2011
☐ internal ☒ external



Sr Lucas Berman,
(Independent verifier)

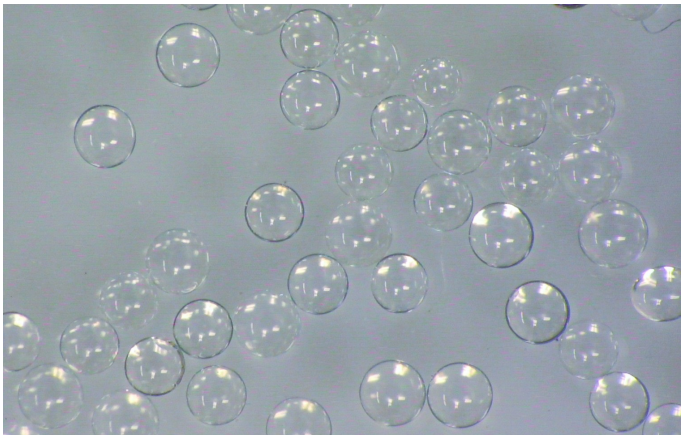
Road Marking Systems

Product

Product description/Product definition

MEGALUX-BEADS retroreflective glass beads are designed for use in premium road marking systems to improve nighttime visibility through retroreflection. They are available in particle size ranges from approximately 600 µm to 1400 µm and comply with the European standards *EN 1423* (harmonized) and *EN 1424*. The beads are suitable for a wide range of road marking systems, including thermoplastics, solvent-based and water-based paints, and cold plastics.

PRODUCT PICTURE



To increase durability and performance, MEGALUX-BEADS retroreflective glass beads can be surface-treated with organosilanes to improve adhesion to the marking material. These treatments are included in the scope of this EPD and were part of the 2024 production data.

Intermixing with other glass bead types or anti-skid aggregates may be possible upon request; however, such customized blends are not covered by this EPD and were not part of the declared product group or the underlying LCA.

For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA), with the exception of Switzerland, *Regulation (EU) No. 305/2011* (Construction Products Regulation – CPR) applies.

The product is placed on the market with a Declaration of Performance (DoP) in accordance with *EN 1423* and carries the CE marking. For the application and use of the product, the respective national provisions at the place of use apply.

Application

MEGALUX-BEADS retroreflective glass beads are primarily used to improve nighttime visibility of road markings by reflecting vehicle headlights. In addition to their optical function, the beads provide mechanical protection, shielding the marking from traffic-induced abrasion leading to extension of the road markings' service life. The main application method is the drop-on process, in which the beads are applied to freshly laid, still-liquid marking material.
This process can be carried out mechanically using road marking machines or manually for smaller applications. The product is suitable for the use for road markings installed at various roadways, including highways, rural and urban roads and runways.

MECHANICAL DROP-ON

MANUAL DROP-ON

In addition to drop-on applications, MEGALUX-BEADS retroreflective glass beads can also be integrated directly into the marking material during the production of thermoplastics, cold plastics, or comparable road marking systems.

Technical data

The technical specifications of the product within the scope of this Environmental Product Declaration (EPD) are listed in the table below. All values refer to the declared MEGALUX-BEADS retroreflective glass beads product in its delivery condition and are based on internal testing and/or standardised methods, as required by the harmonised standard *EN 1423*. These characteristics represent the essential performance properties in accordance with the product's Declaration of Performance (DoP) according to the Construction Products Regulation No. *305/2011* and delegated Regulation *(EU) No. 574/2014.*

Constructional data

Name	Value	Unit
True density	~ 2500	kg/m³
Refractive index acc. to EN 1423	Class A	-
Roundness acc. to EN 1423	85	%
Size range acc. to EN 1423	600-1400	µm
Harmful elements (Pb, As, Sb) acc. to EN 1423	< 200	mg/kg

Delivery Status
After quality control, the finished glass beads are filled into suitable packaging units. The packaging options include:

- Paper bags with 25 kg net weight
- FIBC big bags ranging from 1,000 kg to 1,200 kg net weight

These units are stacked on EURO pallets for transport and storage.

Base materials/auxiliary materials
The MEGALUX-BEADS retroreflective glass beads are a mixture of recycled glass cullets and high-purity raw materials that mostly comprise sand, sodium carbonate, and calcium carbonate.

They do not contain substances of very high concern (SVHC) as defined by Article 59(10) of Regulation (EC) No. 1907/2006 (*REACH* candidate list, dated 2024-01-23), at concentrations at or above 0.1 % by weight.

Composition of MEGALUX-BEADS retroreflective glass beads

Name	Value	Unit
Glass raw materials (virgin & recycled)	99.98-99.99	%
Coating / Organosilane	0.01-0.02	%
TOTAL	100	%

Composition of packaging of MEGALUX-BEADS retroreflective glass beads

Name	Value	Unit
EUR pallet	28-30	%
Paper bag	4-6	%
FIBC big bag	33-35	%
PE packaging	19-21	%
Cardboard	9-11	%
TOTAL	100	%

Reference service life
Climatic conditions, road surface type, traffic volume and composition, winter maintenance (e.g. snow ploughing and gritting), as well as the selected marking system significantly influence the durability of road markings reflectorised with the MEGALUX-BEADS retroreflective glass beads. In particular, performance characteristics such as long-term durability and retroreflectivity in accordance with *EN 1436* are affected over time by site-specific conditions. Due to the wide range of possible installations and in-use conditions, a uniform Reference Service Life (RSL) cannot be defined. The actual service life of road markings must therefore be assessed under local conditions for the specific project and application. No Reference Service Life (RSL) according to *ISO 15686* is declared in this EPD.
Note: For modelling purposes, a service life is applied to define the reference period for module B1. The applied service life is derived from the *BBSR* service life tables. A service life of 30 years for concrete road surfaces is applied, representing a conservative assumption.

LCA: Calculation rules

Declared unit
The conversion from kilograms (kg) to cubic meters (m^3) is based on the density of circa 1600 kg/m^3.
Note: Density depends on the composition of glass beads, which may affect their refractive index and/or roundness.

Declared unit

Name	Value	Unit
Gross density	~ 1600	kg/m^3
Declared unit	1	kg

System boundary
This EPD is classified as 'cradle to gate with options', modules C1–C4 and module D (A1-A3, A4-A5, B1, C1-C4 and D).
The system boundaries define the processes and life cycle stages considered in the LCA of MEGALUX-BEADS retroreflective glass beads and the associated packaging.
The following life cycle modules are included in this study:

- A1–A3: Raw material supply, transport and manufacturing
- A4–A5: Transport to the construction site and application of the glass beads within the road marking process
- B1: Material loss due to surface abrasion
- C1–C4: Removal of markings, transport, waste processing and disposal
- D: Benefits from packaging material

Wooden pallets are modelled as reusable packaging within a closed-loop system. Only the share of pallets replaced due to wear and breakage is considered, while reuse cycles themselves do not result in additional inputs or outputs.

A1 – A3: Product stage
A1 – Raw material supply
The first step in the production of MEGALUX-BEADS retroreflective glass beads is the procurement of recycled glass cullets and high-purity raw materials from selected European suppliers. The used raw materials are essential for achieving the required optical clarity, density, and mechanical durability of the final product. The quality and consistency of these materials directly influence the retroreflective performance, overall quality and durability of the beads.

A2 – Transport
The raw materials are delivered to the production site by truck. All inbound transport routes to the Schönborn plant have been included in the life cycle inventory. An average load factor of 50 % was assumed, representing fully loaded transport to the site and empty return trips.

A3 – Manufacturing
The manufacturing process includes the mixing and melting of the raw materials into a homogeneous glass mass, followed by the formation of spherical beads using a proprietary high-

temperature process. The beads are then cooled, sieved into specific size fractions, optionally coated with organosilanes, and packaged in either 25 kg paper bags or large FIBC big bags. All manufacturing data was collected onsite at SWARCO Schönborn GmbH for the reference year 2024 and includes energy consumption, emissions, and waste generation.

A4 – A5: Construction process stage

A4 – Transport from the gate to the site

Truck transport within Central Europe is considered. Average distances from the SWARCO Schönborn GmbH production site to customers'warehouses are based on internal logistics data. Distances from warehouses to construction sites come from questionnaires completed by the two largest road marking companies in Austria and Germany. Energy use and emissions were calculated from distance and load weight for both transport sections.

A5 – Installation

Glass beads are applied manually or with road marking machines. Fuel/energy use and packaging waste (pallets, paper, cardboard, plastics) are included; impacts are allocated by mass between glass beads and the marking material.

B1: Use Module

Module B1 (Use stage) is declared to account for product abrasion caused by traffic, representing a mass loss of 50 %.

C1 – C4: End-of-life stage

To gain a comprehensive overview of the end-of-life scenarios for road markings, questions were posed to the two largest marking companies in Austria and Germany. The aim was to gain an insight into the ecological footprint of MEGALUX-BEADS retroreflective glass beads.

C1 – Deconstruction/demolition

During removal of the road markings, covering all C-stages of the EPD, different scenarios were evaluated with the aforementioned road marking companies. The share where road markings are removed without asphalt and removal together with asphalt was considered. The joint recycling was not considered as glass beads account for less than 1 % of asphalt mass, making their impact negligible.

C2 – Transport

In this stage, the transport of materials from the deconstruction location to the waste treatment facility or landfill site was considered.

C3 – Waste processing

No specific waste processing activities are modelled for MEGALUX-BEADS retroreflective glass beads in Module C3. Only the amount of glass beads removed together with asphalt are considered as MFR (material for recycling).

C4 – Disposal

In this stage, the final disposal of waste materials (glass waste) is addressed. The amount of waste and corresponding emissions are calculated based on the remaining materials after the product's service life.

D: Benefits and loads beyond the system boundary

No credits or benefits are modelled for the recycling or reuse of the product itself. Module D addresses the potential environmental benefits and loads associated with the end-of-life management of packaging materials used for MEGALUX-BEADS retroreflective glass beads. These benefits include:

- Recycling: Packaging materials, such as pallets, paper and plastics, are recycled where possible, contributing to reduced demand for virgin materials.
- Energy Recovery: Incineration of packaging materials generates energy, which is accounted for as a credit in Module D.

As a general rule, a comparison or evaluation of EPD data is only possible when all of the data records to be compared have been drawn up in accordance with *EN 15804* and the building context and/or product-specific performance characteristics are taken into consideration.

Geographic representativeness

Country or region in which the declared product system is manufactured, used or handled at the end of the product's life span: Europe

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to *EN 15804* and the building context and product-specific performance characteristics are taken into account. The life cycle assessment was carried out using the software *Ecochain Helix* 4.3.1 (© 2025 Ecochain Technologies B.V.). Background data for upstream and downstream processes was sourced from the *Ecoinvent v3.11 Cut-off* database, ensuring a consistent and up-to-date basis for modelling environmental impacts in accordance with *EN 15804.*

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

MEGALUX-BEADS retroreflective glass beads do not contain biogenic carbon. However, the packaging, specifically the pallets, cardboard and paper bags, includes biogenic carbon, which is considered in the environmental assessment. These sources are accounted for and balanced across the relevant life cycle stages to ensure a consistent mass balance of biogenic carbon.

Biogenic carbon content

The table below presents the biogenic carbon content of the product and its packaging.

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Product Carbon content	-	kg C
Packaging Carbon content	0.00072	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2.

Electricity consumption in Modules A1–A3 is modelled using the residual grid electricity mix of Germany complemented by electricity generated on-site via photovoltaic (PV) systems. Based on the weighted share of purchased residual electricity and internally generated PV electricity, the resulting emission factor for electricity used in manufacturing is 0.81958 kg CO_2e/kWh (GWP-GHG).

LCA Scenarios and Additional Technical Information
The following scenarios describe the life cycle stages modelled after the production phase (A1–A3):

A4 – Transport from the gate to the site

Name	Value	Unit
Litres of fuel (Diesel)	32.9	l/100km
Transport distance	462	km
Capacity utilisation (including empty runs)	50	%
Gross density of products transported	1600	kg/m^3
Capacity utilisation volume factor	-	-

A5 – Assembly

Name	Value	Unit
Other resources Diesel consumption	1.8	MJ/kg

B1 – Use
During the use stage, losses occur due to traffic-induced wear. It is assumed that about 50 % of the originally applied MEGALUX-BEADS retroreflective glass beads are gradually lost during the service life (0.50 kg per 1 kg product) and modelled in Module B1 (Use) as emissions to the environment. The remaining 50 % (0.50 kg per 1 kg product) is assumed to remain on the pavement until end-of-life of road markings is treated in the end -of -life scenarios (C1–C4). No additional energy or maintenance is required during use; once applied, the glass beads are an inert component of the road marking system, while B1 ensures closure of the material mass balance. Because neither the full use stage nor a Reference Service Life (RSL) is declared, Module B1 is reported for one year only, as required by the PCR. This is referenced to an assumed service life of 30 years, which is derived from the *BBSR* service life tables and follows the general principles of *ISO 15686*.

Name	Value	Unit
Loss of glass beads from road markings due to traffic	0.50	kg

End of life (C1 - C4)

Name	Value	Unit
Collected separately waste type	0.0077	kg
Collected as mixed construction waste	0.4923	kg
Reuse	-	kg
Recycling	0.4923	kg
Energy recovery	-	kg
Landfilling	0.0077	kg

According to Module B1, it is assumed that at end-of-service life of road markings, reflectorised with MEGALUX-BEADS retroreflective glass beads, half of the beads are lost through abrasion. Of the remainder, only 2 % is removed from the asphalt and landfilled. In all other cases, a new marking is applied over the existing one, or the marking is removed along with the asphalt and downcycled. Since the share of glass beads in recycled asphalt is under 1 %, their impact is negligible and not modelled. Its mass is explicitly reported as MFR in C3, thus the mass balance of the declared unit is fully closed.

D - Benefits and Loads Beyond System Boundaries

Name	Value	Unit
Paper recycling	70.5	%
Paper incineration	29.5	%
PE packaging landfill	17.3	%
PE packaging recycling	37.8	%
PE packaging incineration	44.9	%
Pallet recycling	46.0	%
Pallet incineration	53.7	%
Pallet landfill	0.3	%

LCA: Results

The declared unit is '1 kilogram of MEGALUX-BEADS retroreflective glass beads', including the associated packaging. This unit is used to quantify the environmental impacts across the product's life cycle, including production, transport, application, use stage processes where applicable, end-of-life, disposal, and potential benefits beyond the system boundary.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2:

Parameter	Unit	A1-A3	A4	A5	B1	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	1.58E+00	5E-02	2.14E-01	0	1.86E-02	1.02E-04	0	4.26E-05	-5.81E-03
GWP-fossil	kg CO_2 eq	1.58E+00	5E-02	2.12E-01	0	1.86E-02	1.02E-04	0	4.26E-05	-5.79E-03
GWP-biogenic	kg CO_2 eq	-5E-04	1E-05	2.68E-03	0	2.76E-06	2.03E-08	0	1.28E-08	-4.82E-06
GWP-luluc	kg CO_2 eq	2.81E-04	1.74E-05	2.81E-05	0	4.1E-06	3.52E-08	0	7.93E-09	-1.61E-05
ODP	kg CFC11 eq	5.1E-08	1.1E-09	3.29E-09	0	3.4E-10	2.23E-12	0	1.51E-12	-2.25E-10
AP	mol H^+ eq	2.72E-03	2.3E-04	1.75E-03	0	1.27E-04	4.67E-07	0	2.84E-07	-2.22E-05
EP-freshwater	kg P eq	2.47E-05	3.8E-07	8.45E-07	0	1.02E-07	7.71E-10	0	2.43E-10	-1.29E-07
EP-marine	kg N eq	9.53E-04	8.95E-05	8.02E-04	0	5.6E-05	1.82E-07	0	1.21E-07	-6.48E-06
EP-terrestrial	mol N eq	8.05E-03	9.83E-04	8.79E-03	0	6.14E-04	2E-06	0	1.33E-06	-7.53E-05
POCP	kg NMVOC eq	3.16E-03	3.46E-04	2.66E-03	0	1.93E-04	7.02E-07	0	4.97E-07	-3.38E-05
ADPE	kg Sb eq	6.75E-06	1.64E-07	1.55E-07	0	3.28E-08	3.32E-10	0	5.29E-11	-2.3E-08
ADPF	MJ	2.11E+01	7.16E-01	2.73E+00	0	2.53E-01	1.45E-03	0	1.11E-03	-1.16E-01
WDP	m^3 world eq deprived	1.95E-01	3.55E-03	8.63E-03	0	9.89E-04	7.2E-06	0	4.84E-06	-3.13E-03

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2:

Parameter	Unit	A1-A3	A4	A5	B1	C1	C2	C3	C4	D
PERE	MJ	3.5E-01	1.2E-02	2.15E-02	0	2.94E-03	2.44E-05	0	2.28E-05	-2.75E-01
PERM	MJ	2.9E-02	0	-2.9E-02	0	0	0	0	0	0
PERT	MJ	3.79E-01	1.2E-02	-7.49E-03	0	2.94E-03	2.44E-05	0	2.28E-05	-2.75E-01
PENRE	MJ	2.3E+01	7.62E-01	2.91E+00	0	2.69E-01	1.55E-03	0	1.18E-03	-1.25E-01
PENRM	MJ	9.3E-02	0	-9.1E-02	-3E-05	0	0	-1.02E-03	-2E-05	0
PENRT	MJ	2.31E+01	7.62E-01	2.82E+00	-3E-05	2.69E-01	1.55E-03	-1.02E-03	1.16E-03	-1.25E-01
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m^3	5.49E-03	1.08E-04	2.63E-04	0	3.02E-05	2.2E-07	0	1.31E-06	-7.35E-05

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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

Parameter	Unit	A1-A3	A4	A5	B1	C1	C2	C3	C4	D
HWD	kg	1.13E-04	4.87E-06	1.91E-05	0	1.75E-06	9.9E-09	0	6.82E-09	-1.24E-06
NHWD	kg	1.13E-01	4.49E-02	2.64E-02	0	8.16E-03	9.11E-05	0	7.7E-03	-8.56E-04
RWD	kg	7.32E-06	2.2E-07	3.69E-07	0	5.27E-08	4.47E-10	0	2.42E-10	-1.07E-07
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	4.92E-01	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:

Parameter	Unit	A1-A3	A4	A5	B1	C1	C2	C3	C4	D
PM	Disease incidence	2.16E-08	4.92E-09	4.89E-08	9.14E-07	3.33E-09	9.98E-12	0	7.14E-12	-3.29E-10
IR	kBq U235 eq	9.01E-03	3.23E-04	5.7E-04	0	7.88E-05	6.55E-07	0	4.2E-07	-1.34E-04
ETP-fw	CTUe	2.83E+00	9.48E-02	1.82E-01	0	2.38E-02	1.92E-04	0	5.95E-05	-1.48E-02
HTP-c	CTUh	2.18E-10	1.27E-11	2.57E-11	0	3.26E-12	2.58E-14	0	5.39E-15	-1.75E-11
HTP-nc	CTUh	5.5E-09	5.02E-10	5.7E-10	0	1.06E-10	1.02E-12	0	1.54E-13	-4.4E-11
SQP	SQP	2.28E+00	5.38E-01	4.51E-01	0	1.05E-01	1.09E-03	0	2.28E-03	-1.43E+00

PM = Potential incidence of disease due to PM emissions; IR = Potential human exposure efficiency relative to U235; ETP-fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for humans (carcinogenic); HTP-nc = Potential comparative toxic unit for humans (not carcinogenic); SQP = Potential soil quality index

Note on Module B1: The LCA results for module B1 refer to a period of one year, as no Reference Service Life (RSL) according to *ISO 15686* has been declared. To quantify the impacts over the total assumed service life of 30 years (based on BBSR), the following formula must be applied: Impact Total = Impact B1 × 30 years.

Disclaimer 1 – for the indicator 'Potential Human exposure efficiency relative to U235'. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources', 'water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems', 'potential comparative toxic unit for humans – cancerogenic', 'Potential comparative toxic unit for humans - not cancerogenic', 'potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

ISO 9001
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Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Programme holder

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Author of the life cycle assessment

IMPROVE Unternehmensberatung
Schießstandstraße 3
6322 Kirchbichl
Austria

+4366473878283
office@improve.co.at
www.improve.co.at

Owner of the Declaration

SWARCO AG
Blattenwaldweg 8
6112 Wattens
Austria

+43522458770
office.ag@swarco.com
www.swarco.com