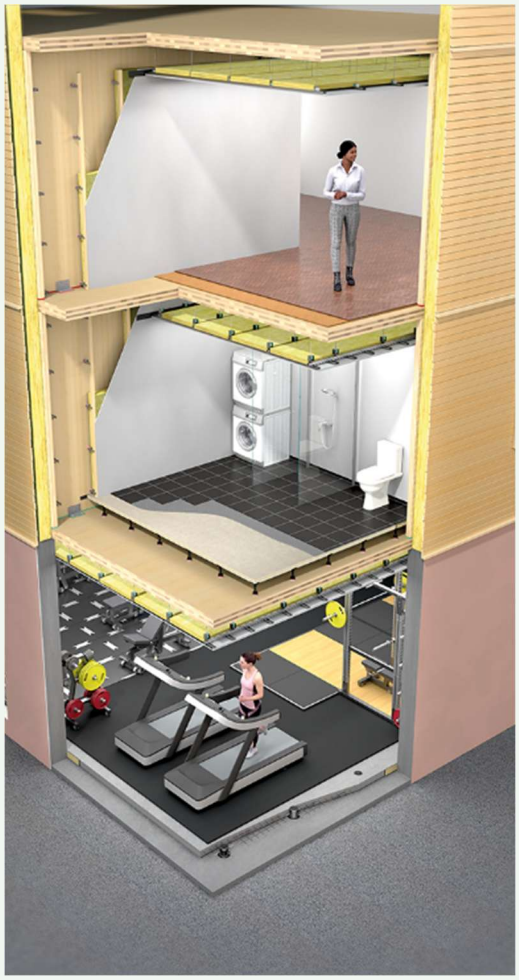
Environmental Product Declaration

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

Acoustic suspension products for ceiling, floor and wall

Vibratec Akustikprodukter AB



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products, based on a representative product VT-SFC. Included products are VT-AWS-L, VT-AWS, VT-WH, VT-FFB, VT-JH, VT-MCH, VT-CBC and VT-BAT.
EPD registration number:	EPD-IES-0030216:001
Version date:	2026-03-25
Validity date:	2031-03-25

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see 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:	support@environdec.com

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 2.0.1 valid until 2030-04-07.
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a full list of members. Review chair: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via support@environdec.com.

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party verifier: Katrin Molina-Besch, Miljögiraff Approved by: 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 published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit 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 identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Vibratec Akustikprodukter AB

Address: Hantverkaregatan 7, 76130 Norrtälje

Contact details: info@vibratec.se

Contact information of the LCA practitioner commissioned by the EPD owner: Stina Karlsson, stina.karlsson@rejlers.se, Rejlers Sverige AB

Description of the organisation: Vibratec is one of Scandinavia's leading suppliers of noise and vibration solutions, with particular strength in the construction sector. The ambition is to be the obvious choice for customers facing noise, vibration, and shock challenges. The business includes the design, manufacture, and stocking of a broad range of products for isolating and damping vibration, shock, and noise across diverse applications.

Vibratec operates within the Construction, Industry, Defence, Marine, Offshore, and Infrastructure sectors. The product portfolio enables vibration isolation for applications ranging from complete buildings, bridges, and railways to small engines and gas turbines.

Vibratec provides solutions covering early-stage advice and product selection through to delivery and installation.

Product-related or management system-related certifications: ISO 14001, ISO 9001 and ISO 45001.

PRODUCT INFORMATION

Product name: Acoustic products for ceiling, floor and wall

Product identification: Ceiling system VT-SFC

UN CPC code: 4219

Product description: Vibratec offers a broad range of solutions to reduce vibrations and the transmission of structure-borne sound. The range includes ceiling systems and hangers, wall mounts, as well as floor systems and floor mounts. The solutions decouple installations and building elements from the structure for effective vibration isolation.

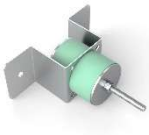
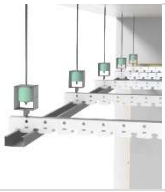
Product applications:

- Suspension and vibration isolation of suspended ceilings
- Suspension of technical installations such as pipes, ventilation ducts, HVAC systems and similar suspended technical services.
- Decoupling of partition walls
- Installation of floating floors (wet or dry systems)

Suitable for residential buildings, studios, cinemas, offices, industrial environments, gyms, sports halls, dance studios, stages and other public venues.

This is a multi-product EPD based on the representative product VT-SFC. The other products included in the EPD are VT-AWS-L, VT-AWS, VT-WH, VT-FFB, VT-JH, VT-MCH, VT-CBC, and VT-BAT. All included products consist of steel and incorporate a shock-absorbing material mounted at

Vibratec's facilities. The products are stored in a warehouse prior to packaging and transportation to customers.

	**VT-SFC** – Single Frame Ceiling System for suspended ceilings. Hangers are fixed to the structure and the profile rail are clicked on for quick installation, controlled deflection, and a low natural frequency.
	**VT-AWS-L** – Compact acoustic wall mount with a short plate and dense screw pattern for decoupling of partition walls, ideal where space is limited.
	**VT-AWS** – Acoustic wall mount that decouples partition walls from the structure and interrupts vibration paths. Offers flexible fixing and easy adjustment of the wall's offset to the structure. Can also be used as a ceiling hanger with one elastic element (instead of two).
	**VT-WH** – Acoustic wall hanger for decoupling of partition walls. Can also be used as a ceiling hanger with an adapted elastic element.
	**VT-FFB** – Flexible, height-adjustable floor support that fits standard timber joists. Practical on uneven subfloors. By threading wire through the side holes, you can create a mesh to carry insulation, forming an air gap to the subfloor.
	**VT-JH** – Impact-sound-isolating joist hanger for timber beams. Provides an elastic connection to columns/walls and prevents acoustic bridging; can be mounted on wood, concrete, lightweight concrete or brick walls.
	**VT-MCH** – Flexible ceiling hanger designed for both top and side mounting. It can be used with Vibratec's click-on hangers and profiles for suspended ceilings, or standalone for suspending equipment such as loudspeakers, pipes or ductwork.
	**VT-CBC** – Ceiling system with a double grid and click-in hangers/C-profiles for high sound insulation. Hangers can be supplied with Regufoam® pads in various thicknesses to tune the resonance frequency. The two-layer design allows flexible hanger placement without affecting the secondary framing.

VT-BAT – Floating floor system with steel joists and isolators available in several heights. By selecting height and stiffness, a very low natural frequency can be achieved for effective attenuation of impact and structure-borne noise — for wet or dry floating floors.

Name and location of production site(s):Vibratec Akustikprodukter AB, Fagernäsvägen 1, 760 17 Blidö

Websites: https://www.vibratec.org

CONTENT DECLARATION

The mass (weight) per declared unit: 1 kg of VT-SFC acoustic suspension

Content of the product in the form of a list of materials and substances, and their mass: The following content declaration presents the content of the representative product.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Aluminium Zinc Coated Steel	0.21	-	-	-
Polyurethane Foam	0.12	-	-	-
Steel- Joists	0.67	37	-	-
TOTAL	1.000	25		

The mass and the content of distribution and/or consumer packaging

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Cardboard Box	0.0007	0.07%	0.00028
Polyethylene film	0.0002	0.02%	-
Wooden Pallet	0.0316	3.16%	0.0149
TOTAL	0.0325	3.25%	0.0151

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

Information on the environmental and hazardous/toxic properties of a substances contained in the product: The product does not contain any REACH SVHC substances in amounts greater than 0.1 % (1000 ppm).

Other information on substances with hazardous and toxic properties: None to declare.

LCA INFORMATION

Functional unit / Declared unit: 1 kg of product VT-SFC. The information and calculations in this EPD are based on VT-SFC with a declared unit of 1 kg. The other included products are VT-AWS-L, VT-AWS, VT-WH, VT-FFB, VT-JH, VT-MCH, VT-CBC, VT-BAT.

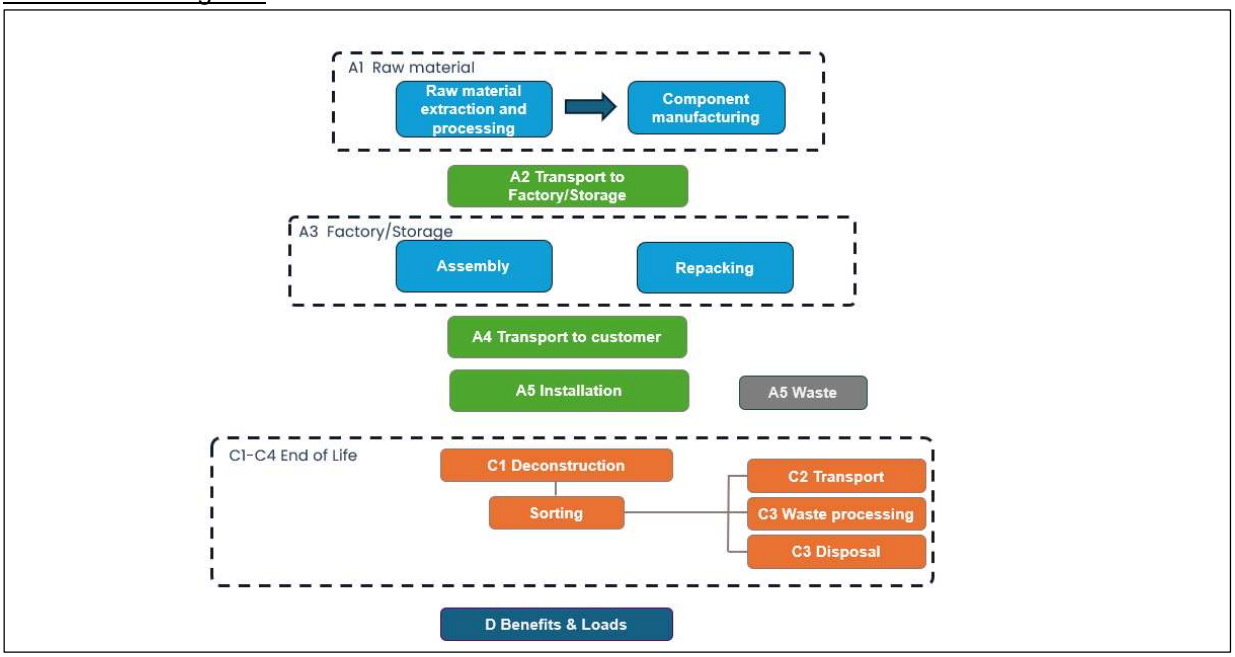
Time representativeness: January 2024 – December 2024.

Geographical scope: A1-A2 EU, A3 SE and A4-A5/C/D EU.

Database(s) and LCA/EPD software/tool used: This EPD is based on Ecoinvent 3.10.1 and One Click LCA databases. The LCA and EPD have been created using One Click LCA EPD Generator V3 products.

Description of system boundaries: Cradle-to-gate with options, modules C1-C4, module D and optional modules A4 and A5.

Process flow diagram:



Cut-off criteria: The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2:2019 and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

Allocation, estimates and assumptions: In this study allocation was applied where inputs could not be measured separately for the studied products. The following allocation decisions were made:

- Packing material, energy consumption and waste production were allocated to the studied product based on mass and volume.

- The allocations in the Ecoinvent 3.10.1 datasets used in this study follow the Ecoinvent system model 'Allocation, cut-off, EN15804'.

Modelling of infrastructure/capital goods: The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

Supporting Activities: Activities directly associated with the production at site are included (e.g., the use of the production equipment), including supporting activities such as heating of, and water use at, premises.

Excluded Personnel Processes: Business travel of personnel, travel to and from work by personnel, and research and development activities are excluded.

Electricity modelling in module A3: The source of electricity is Electricity, Sweden, residual mix, 2024 (One Click LCA) with an GWP-GHG emission of 0,11 kg CO2eq / kWh.

Characterisation methods for all declared environmental performance indicators: EN 15804 reference package based on EF 3.1 has been used.

GWP-GHG intensity of recycled material: None to declare

Data quality: Primary data has been taken on the amounts of materials and energy used during the life cycle of the product. These data have been supplied by the manufacturer, referring to the calendar year 2024, and come from direct factory data. The quality of the primary data is consistent with the standards used. The data was examined carefully, and clarifications requested from the Manufacturer when necessary.

Secondary data have been taken on the impact per unit of matter or energy. These data have been obtained from the Ecoinvent database, of recognized international prestige, in its version 3.10.1. Said database has been selected as the reference database because it coincides with the input flows of matter and energy on the following aspects:

- Technological equivalence: the data derives from the same physical and chemical processes, or at least the same technological coverage.
- Limits towards nature: the data contains all the quantitative information necessary for the EPD.
- Limits towards technical systems: the considered stages of the life cycle are equivalent.

The treatment and processing of the data have been carried out in accordance with the international standards ISO 14025, ISO 14040, ISO 14044 and EN15804:2012 + A2:2019/ AC:2021.

Total share of primary data: 38,9%

Product-specific	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3 %
Hot-dip galvanised steel profiles	EPD	S-P-04231	2020	Primary data	38,9 %
Polyurethane production, rigid foam	Database	Ecoinvent 3.10.1	2024	Secondary data	0%
Aluminium-zinc coated steel sheet, Super Galum	EPD	S-P-06909	2022	Secondary data	0%
Metal working, average for steel production	Database	Ecoinvent 3.10.1	2024	Secondary data	0%
Other processes	Database	Ecoinvent 3.10.1, OneClick LCA	2024	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3					38,9 %

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

For the GWP-GHG indicator, more than 80% of the total impact originates from Modules A1–A3, driven mainly by steel raw material production (hot-dip galvanized steel profiles and aluminium-zinc coated steel sheets) and manufacturing energy use.

The datasets dominating the GWP-GHG results demonstrate Very Good to Good data quality with strong temporal representativeness. Some supporting background datasets (e.g. transport and generic processes) are rated Fair in geographical representativeness; however, these do not materially affect the robustness of the results and are considered acceptable under EN 15941.

LCA Scenarios:

Manufacturing and packaging (A1-A3): The product consists of a profile rail, hanger with shock absorbing material and a washer. The shock absorbing material is mounted at the manufacturer's facilities, and the products are stored in the warehouse before packaging and transportation to customers.

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, energy used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The environmental impact includes transports from the suppliers to Vibratec Akustikprodukter AB, energy use for assembly and storage at the manufacturing site and packaging materials. The assembly consists of mounting the shock absorbing material on the hanger.

Transport and installation (A4-A5): Transportation impacts occurring from final products delivery to construction site (A4) is a weighted average of transportation modes and distances, based on transportations to several customers and markets, representing the geographical scope of the EPD.

The calculations cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Packaging wastes are conservatively assumed to take on the EU market average scenarios, which comprise mainly of activities such as recycling, landfilling and incineration without energy recovery.

Product use and maintenance (B1-B7): This EPD does not cover the use phase since there is no environmental impact during this stage. Air, soil, and water impacts during the use phase have not been studied.

Product end of life (C1-C4, D): The energy consumption to remove the product at the end of its lifetime is assumed to be negligible (C1). The transport of the discarded product to the waste facility has been estimated to 80 km for landfill, 130 km for incineration and 80 km for recycling (C2). An Ecoinvent dataset has been used for calculating the handling of metal and polyurethane foam (C3). Steel scrap is predicted to have a material recovery rate of 85%, respectively 7,5 % for polyurethane foam. 65,5 % of the polyurethane foam is assumed to be incinerated. Additional values are available for the scenario with 100% recycling, 100% incineration and 100% landfill under other Additional LCA results. Benefits from recycling metals and incinerating the other waste are included in (D).

Conservative assumptions are made in case primary data is missing, i.e., assumptions that reflect the highest environmental impacts in comparison to other assumptions.

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

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	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	SE	EU	EU	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Share of primary data	38,9 %			0	0	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-19% to +68%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	N/A (single site)			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND = Not declared. GLO = Global. EU = European Union.

Min-Max variations between included products:

LCA result of one declared unit product (A-C)	Unit	Min VT-BAT Difference	Representative VT-SFC	Max VT-AWS-L Difference
GWP-total	kg CO2 eq.	-16,0%	3,37E+00	73,0%
GWP-fossil	kg CO2 eq.	-16,1%	3,36E+00	72,6%
GWP-biogenic	kg CO2 eq.	0,0%	3,02E-06	0,0%
GWP-luluc	kg CO2 eq.	6,6%	1,06E-02	138,7%
ODP	kg CFC 11 eq.	14,2%	1,34E-07	-21,6%
AP	mol H+ eq.	2,9%	3,12E-02	-11,9%
EP-freshwater	kg P eq.	7,5%	1,33E-03	-12,0%
EP-marine	kg N eq.	47,9%	3,36E-03	-24,4%
EP-terrestrial	mol N eq.	10,9%	1,01E-01	-47,4%
POCP	kg NMVOC eq.	-8,0%	1,37E-02	44,5%
ADP-minerals & metals*	kg Sb eq.	23,1%	2,34E-03	-96,8%
ADP-fossil*	kg CO2 eq.	-12,7%	4,80E+01	74,8%
WDP*	kg CO2 eq.	-1,8%	2,21E+00	30,3%

The variations in climate impact within modules A1–A3 among the included products are primarily due to the ratio between polyurethane and steel. Since polyurethane has a climate impact per kilogram that is higher than steel, a product with a higher proportion of steel and a lower proportion of polyurethane – such as the systems and specifically VT-BAT – results in a lower climate impact per kilogram. Conversely, the brackets and specifically VT-AWS-L contains less steel and more polyurethane, which leads to a higher climate impact per kilogram.

ENVIRONMENTAL PERFORMANCE

LCA results of the product - main environmental performance results

Mandatory impact category indicators according to EN 15804

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	3,03E+00	2,98E-02	5,30E-02	0,00E+00	1,64E-02	2,39E-01	4,10E-03	-8,54E-01
GWP-fossil	kg CO_2 eq.	3,07E+00	2,98E-02	1,63E-03	0,00E+00	1,64E-02	2,39E-01	4,10E-03	-8,55E-01
GWP-biogenic	kg CO_2 eq.	-5,13E-02	0,00E+00	5,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,70E-03
GWP-luluc	kg CO_2 eq.	1,05E-02	1,33E-05	1,75E-06	0,00E+00	7,03E-06	2,34E-05	9,45E-07	-1,61E-03
ODP	kg CFC 11 eq.	1,33E-07	4,40E-10	2,37E-11	0,00E+00	2,45E-10	4,28E-10	3,41E-11	-3,50E-09
AP	mol H^+ eq.	3,06E-02	1,02E-04	6,99E-06	0,00E+00	5,42E-05	4,32E-04	9,89E-06	-4,25E-03
EP-freshwater	kg P eq.	1,31E-03	2,32E-06	3,11E-07	0,00E+00	1,25E-06	1,20E-05	1,51E-07	-4,12E-04
EP-marine	kg N eq.	2,29E-03	3,34E-05	6,89E-06	0,00E+00	1,77E-05	3,30E-04	6,85E-04	-7,92E-04
EP-terrestrial	mol N eq.	9,82E-02	3,63E-04	2,80E-05	0,00E+00	1,92E-04	1,79E-03	4,04E-05	-8,66E-03
POCP	kg NMVOC eq.	1,30E-02	1,50E-04	9,54E-06	0,00E+00	7,69E-05	4,56E-04	1,37E-05	-2,93E-03
ADP-minerals& metals*	kg Sb eq.	2,34E-03	8,31E-08	4,03E-09	0,00E+00	5,39E-08	1,23E-06	2,31E-09	-5,72E-05
ADP-fossil*	MJ	4,69E+01	4,32E-01	1,96E-02	0,00E+00	2,30E-01	3,53E-01	2,98E-02	-8,28E+00
WDP*	m^3	2,19E+00	2,13E-03	4,45E-04	0,00E+00	1,08E-03	1,99E-02	1,41E-04	-2,53E-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 on these results are high or as there is limited experienced with the indicator.*

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Additional mandatory and voluntary impact category indicators

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO_2 eq.	3,08E+00	2,98E-02	1,63E-03	0,00E+00	1,64E-02	2,39E-01	4,10E-03	-8,56E-01
Particulate matter	Incidence	5,90E-08	2,98E-09	1,30E-10	0,00E+00	1,30E-09	6,88E-09	2,02E-10	-5,62E-08
Ionizing radiatio	kBq U235e	2,44E-01	3,76E-04	4,65E-05	0,00E+00	2,04E-04	2,05E-03	3,46E-05	8,37E-04
Ecotoxicity (freshwater)	CTUe	4,25E+01	6,11E-02	6,52E-03	0,00E+00	3,54E-02	7,04E-01	1,55E-01	-1,56E+01
Human toxicity, cancer	CTUh	2,62E-09	4,92E-12	6,03E-13	0,00E+00	2,79E-12	5,90E-11	5,57E-13	-4,77E-10
Human tox. non-cancer	CTUh	1,83E-08	2,80E-10	3,27E-11	0,00E+00	1,44E-10	1,77E-09	8,41E-11	-1,54E-08
SQP[7)]	-	1,12E+01	4,35E-01	1,69E-02	0,00E+00	1,37E-01	4,65E-01	5,87E-02	-2,87E+00

EN 15804+A2 disclaimer for Ionizing radiation, human health. 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 nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

Resource use indicators

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	5,12E+00	5,92E-03	-4,75E-01	0,00E+00	3,29E-03	4,51E-02	4,97E-04	-1,04E+00
PERM	MJ	4,51E-01	0,00E+00	-4,50E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,02E-02
PERT	MJ	5,57E+00	5,92E-03	-9,24E-01	0,00E+00	3,29E-03	4,51E-02	4,97E-04	-1,01E+00
PENRE	MJ	4,16E+01	4,32E-01	1,15E-02	0,00E+00	2,30E-01	-2,39E+00	-9,84E-01	-8,29E+00
PENRM	MJ	3,81E+00	0,00E+00	-3,83E-02	0,00E+00	0,00E+00	-2,72E+00	-1,01E+00	3,89E-02
PENRT	MJ	4,54E+01	4,32E-01	-2,68E-02	0,00E+00	2,30E-01	-5,10E+00	-1,99E+00	-8,25E+00
SM	kg	3,31E-01	1,84E-04	1,27E-05	0,00E+00	1,04E-04	3,27E-04	8,29E-06	4,72E-01
RSF	MJ	1,51E-02	2,34E-06	1,30E-07	0,00E+00	1,32E-06	1,46E-05	1,61E-07	-6,53E-05
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	2,72E-02	6,39E-05	-3,97E-05	0,00E+00	3,06E-05	4,38E-04	-1,01E-04	-4,76E-03
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 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	1,02E-01	7,32E-04	1,09E-04	0,00E+00	3,90E-04	5,45E-03	4,59E-05	-2,56E-01
Non-hazardous waste disposed	kg	6,06E+00	1,36E-02	7,11E-02	0,00E+00	7,44E-03	1,56E-01	1,66E-01	-2,20E+00
Radioactive waste disposed	kg	2,03E-04	9,21E-08	1,16E-08	0,00E+00	5,01E-08	5,23E-07	8,46E-09	1,35E-06

Output flow indicators

Results per 1 kg of VT-SFC acoustic suspension									
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	2,49E-02	0,00E+00	1,07E-02	0,00E+00	0,00E+00	7,59E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	9,38E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	9,70E-02	0,00E+00	2,16E-02	0,00E+00	0,00E+00	3,90E-01	0,00E+00	0,00E+00
Exported energy, thermal	MJ	1,30E-01	0,00E+00	2,99E-02	0,00E+00	0,00E+00	5,40E-01	0,00E+00	0,00E+00

Additional LCA results of the product

Alternative end of life scenario with 100% recycling:

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	3,03E+00	2,98E-02	5,30E-02	0,00E+00	8,62E-03	8,84E-02	0,00E+00	-1,02E+00
GWP-fossil	kg CO_2 eq.	3,07E+00	2,98E-02	1,63E-03	0,00E+00	8,62E-03	8,84E-02	0,00E+00	-1,08E+00
GWP-biogenic	kg CO_2 eq.	-5,13E-02	0,00E+00	5,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,67E-02
GWP-luluc	kg CO_2 eq.	1,05E-02	1,33E-05	1,75E-06	0,00E+00	3,86E-06	2,65E-05	0,00E+00	-2,27E-03
ODP	kg CFC 11 eq.	1,33E-07	4,40E-10	2,37E-11	0,00E+00	1,27E-10	3,21E-10	0,00E+00	-5,46E-09
AP	mol H^+ eq.	3,06E-02	1,02E-04	6,99E-06	0,00E+00	2,94E-05	8,26E-04	0,00E+00	-5,32E-03
EP-freshwater	kg P eq.	1,31E-03	2,32E-06	3,11E-07	0,00E+00	6,71E-07	1,32E-05	0,00E+00	-5,21E-04
EP-marine	kg N eq.	2,29E-03	3,34E-05	6,89E-06	0,00E+00	9,66E-06	1,92E-03	0,00E+00	-1,01E-03
EP-terrestrial	mol N eq.	9,82E-02	3,63E-04	2,80E-05	0,00E+00	1,05E-04	4,46E-03	0,00E+00	-1,09E-02
POCP	kg NMVOC eq.	1,30E-02	1,50E-04	9,54E-06	0,00E+00	4,33E-05	1,01E-03	0,00E+00	-3,76E-03
ADP-minerals& metals*	kg Sb eq.	2,34E-03	8,31E-08	4,03E-09	0,00E+00	2,40E-08	1,42E-06	0,00E+00	-7,37E-05
ADP-fossil*	MJ	4,69E+01	4,32E-01	1,96E-02	0,00E+00	1,25E-01	3,10E-01	0,00E+00	-1,04E+01
WDP*	m^3	2,19E+00	2,13E-03	4,45E-04	0,00E+00	6,18E-04	7,50E-03	0,00E+00	-3,26E-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								

Alternative end of life scenario with 100% incineration:

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	3,03E+00	2,98E-02	5,30E-02	0,00E+00	1,54E-02	3,42E-01	8,12E-04	-9,39E-01
GWP-fossil	kg CO_2 eq.	3,07E+00	2,98E-02	1,63E-03	0,00E+00	1,54E-02	3,42E-01	8,12E-04	-9,40E-01
GWP-biogenic	kg CO_2 eq.	-5,13E-02	0,00E+00	5,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,65E-03
GWP-luluc	kg CO_2 eq.	1,05E-02	1,33E-05	1,75E-06	0,00E+00	6,84E-06	2,44E-05	4,64E-07	-1,78E-03
ODP	kg CFC 11 eq.	1,33E-07	4,40E-10	2,37E-11	0,00E+00	2,17E-10	5,22E-10	2,35E-11	-3,83E-09
AP	mol H^+ eq.	3,06E-02	1,02E-04	6,99E-06	0,00E+00	5,16E-05	4,80E-04	5,75E-06	-4,69E-03
EP-freshwater	kg P eq.	1,31E-03	2,32E-06	3,11E-07	0,00E+00	1,20E-06	1,25E-05	6,67E-08	-4,51E-04
EP-marine	kg N eq.	2,29E-03	3,34E-05	6,89E-06	0,00E+00	1,67E-05	2,61E-04	2,19E-06	-8,70E-04
EP-terrestrial	mol N eq.	9,82E-02	3,63E-04	2,80E-05	0,00E+00	1,82E-04	2,00E-03	2,40E-05	-9,51E-03
POCP	kg NMVOC eq.	1,30E-02	1,50E-04	9,54E-06	0,00E+00	7,23E-05	5,15E-04	8,58E-06	-3,22E-03
ADP-minerals& metals*	kg Sb eq.	2,34E-03	8,31E-08	4,03E-09	0,00E+00	4,98E-08	1,24E-06	1,29E-09	-6,18E-05
ADP-fossil*	MJ	4,69E+01	4,32E-01	1,96E-02	0,00E+00	2,17E-01	4,11E-01	1,99E-02	-9,22E+00
WDP*	m^3	2,19E+00	2,13E-03	4,45E-04	0,00E+00	1,02E-03	2,75E-02	5,75E-05	-2,79E-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								

Alternative end of life scenario with 100% landfill:

Results per 1 kg of VT-SFC acoustic suspension									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	3,03E+00	2,98E-02	5,30E-02	0,00E+00	8,61E-03	0,00E+00	1,75E-02	-1,42E-03
GWP-fossil	kg CO_2 eq.	3,07E+00	2,98E-02	1,63E-03	0,00E+00	8,61E-03	0,00E+00	1,74E-02	-4,51E-03
GWP-biogenic	kg CO_2 eq.	-5,13E-02	0,00E+00	5,13E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,10E-03
GWP-luluc	kg CO_2 eq.	1,05E-02	1,33E-05	1,75E-06	0,00E+00	3,85E-06	0,00E+00	4,89E-06	-6,82E-06
ODP	kg CFC 11 eq.	1,33E-07	4,40E-10	2,37E-11	0,00E+00	1,27E-10	0,00E+00	1,98E-10	-6,28E-11
AP	mol H^+ eq.	3,06E-02	1,02E-04	6,99E-06	0,00E+00	2,94E-05	0,00E+00	5,40E-05	-2,78E-05
EP-freshwater	kg P eq.	1,31E-03	2,32E-06	3,11E-07	0,00E+00	6,70E-07	0,00E+00	7,59E-07	-2,70E-06
EP-marine	kg N eq.	2,29E-03	3,34E-05	6,89E-06	0,00E+00	9,65E-06	0,00E+00	2,50E-03	-4,24E-06
EP-terrestrial	mol N eq.	9,82E-02	3,63E-04	2,80E-05	0,00E+00	1,05E-04	0,00E+00	2,22E-04	-4,19E-05
POCP	kg NMVOC eq.	1,30E-02	1,50E-04	9,54E-06	0,00E+00	4,33E-05	0,00E+00	7,66E-05	-1,44E-05
ADP-minerals& metals*	kg Sb eq.	2,34E-03	8,31E-08	4,03E-09	0,00E+00	2,40E-08	0,00E+00	1,25E-08	-7,20E-09
ADP-fossil*	MJ	4,69E+01	4,32E-01	1,96E-02	0,00E+00	1,25E-01	0,00E+00	1,71E-01	-7,75E-02
WDP*	m^3	2,19E+00	2,13E-03	4,45E-04	0,00E+00	6,17E-04	0,00E+00	6,93E-04	-1,42E-03
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								

ADDITIONAL ENVIRONMENTAL INFORMATION

Conversion factors for converting the declared results of VT-SFC GWP-GHG to results for specific products within the group:

Product	Conversion factor for A1-A3
VT-AWS-L	1,68
VT-AWS	1,65
VT-WH	1,65
VT-FFB	1,50
VT-JH	1,49
VT-MCH	1,16
VT-SFC	1,00
VT-CBC	0,96
VT-BAT	0,81

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
EF	Environmental Footprint
EN	European Norm (Standard)
EPD	Environmental Product Declaration
GHG	GreenHouse Gas
GHS	Globally harmonized system of classification and labelling of chemicals
GPI	General Programme Instructions
GRI	Global Reporting Initiative
GWP	Global Warming Potential
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory
ND	Not Declared
PCR	Product Category Rule
SVHC	Substances of Very High Concern

REFERENCES

Standards and PCR

International EPD System PCR 2019:14 Construction products, version 2.0.1
ISO (2000): ISO 14020:2000, Environmental labels and declarations – General principles
ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations Principles and procedures.
ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.
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EN 15804+A2 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products.
EPD International (2021). General Programme Instructions of the international EPD® system. Version 5.0.1 www.environdec.com.

Data references:

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VERSION HISTORY

Original Version of the EPD, 2026-03-25

EPD
INTERNATIONAL EPD SYSTEM
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