ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Drywall Screws
Hilti AG

EPD HUB, HUB-1987
Published on 06.10.2024, last updated on 24.10.2025, valid until 06.10.2029

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Hilti AG
Address	Feldkircherstrasse 100, Schaan, Liechtenstein
Contact details	sustainability@hilti.com
Website	www.hilti.group

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	PCR EPD Hub Core PCR version 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Elise Janssen, Hilti AG
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Imane Uald lamkaddam, as an authorized verifier acting for EPD Hub Limited

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Drywall Screws
Additional labels	See appendix
Product reference	84291
Place(s) of raw material origin	Taiwan
Place of production	Kaohsiung, Taiwan
Place(s) of installation and use	Worldwide
Period for data	Calendar year 2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	+/-0.83%
A1-A3 Specific data (%)	45,6

ENVIRONMENTAL DATA SUMMARY

Declared unit	kg
Declared unit mass	1,0 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2,74
GWP-total, A1-A3 ($kgCO_2e$)	2,68
Secondary material, inputs (%)	11,7
Secondary material, outputs (%)	66,7
Total energy use, A1-A3 (kWh)	9,27
Net freshwater use, A1-A3 (m^3)	0,02

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

The Hilti Group supplies the worldwide construction and energy industries with technologically leading products, systems, software and services. With about 33,000 team members in over 120 countries, the company stands for direct customer relationships, quality and innovation. The headquarters of the Hilti Group have been located in Schaan, Liechtenstein, since its founding in 1941. The company is privately owned by the Martin Hilti Family Trust, which ensures its long-term continuity. The Hilti Group's purpose is to make construction better, based on a passionate and inclusive global team and a caring and performance-oriented culture.

PRODUCT DESCRIPTION

The Hilti Drywall Screw portfolio includes a variety of screws designed for various board fastening applications. The portfolio features both stitch tip screws and drill-tip screws. The corrosion protection options for the screws include black phosphate, galvanic zinc-plated, and electro-coated (CRC) carbon steel screws.
Typical applications for these drywall screws include fastening boards to wood or metal substructures

Further information can be found at:
www.hilti.group

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	Taiwan
Minerals	-	-
Fossil materials	-	-
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,017

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	kg
Mass per declared unit	1,0 kg
Functional unit	
Reference service life	

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

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, fuels 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.

A market-based approach is used in modelling the electricity mix utilized in the factory.

The phosphate steel screw is made from low-carbon steel. The referenced product is 6x1-1/4 PBH S dry wall screw, which is a stitch point, fine thread screw with PH2 recess, used for connection of drywall boards to metal substructures. The steel is BF-EAF with 21% post-consumer and 23.5% pre-consumer recycled content. The steel supplier provided a carbon footprint for the exact steel used for these products. The coils are cut and cold formed to form the blank in its final size and shape. The part is the rolled to form the thread and the heat treated to get the desired properties. The steel screw is phosphate (or zinc coated) and finally packaged and distributed. The manufacturing process requires electricity and fuel for powering the production equipment. A wooden pallet and cardboard are used as packaging materials for transporting the screw to the dedicated marketplaces.
The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation is calculated based on the distance traveled by lorry/ship from the supplier to the warehouses in Hilti North America. Vehicle capacity utilization volume factors may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. To be conservative, empty returns are included in this study as implemented through an average load factor in the Ecoinvent transport datapoints. Transportation does not cause losses as product is packaged properly.

Environmental impacts from installation into the building include generation of waste packaging materials (A5) and release of biogenic carbon dioxide

from wood pallets/cardboard boxes. The impacts of material production, its processing and its disposal as installation waste are also assessed. Screws used in the installation process and electricity consumption for the assembly are considered, too. No installation losses happen in this stage if the installation process is carried out appropriately according to Hilti instructions.

PRODUCT USE AND MAINTENANCE (B1-B7)

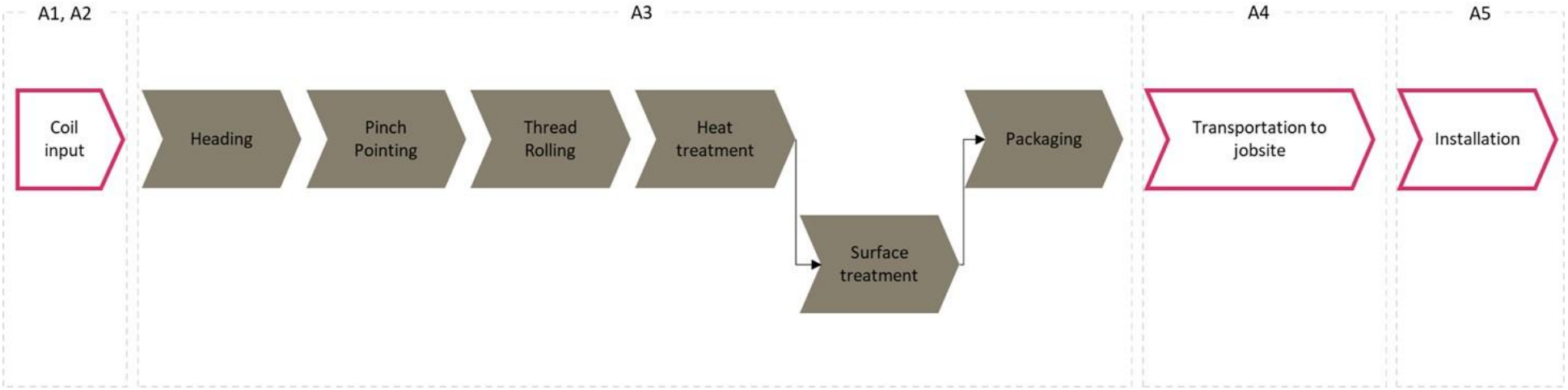
The use phase is not relevant for the life cycle emissions of this product and is, therefore, not accounted into the assessment.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

The product is considered to be dismantled by a power tool and with negligible energy use. It is assumed that the steel waste is collected separately and transported to the waste treatment facility. Transportation distance to waste treatment plant and to landfill is assumed to be 100 km, the transportation method is assumed to be lorry. Module C3 accounts for energy and resource inputs for sorting and treating steel for recycling. Landfilled material is included in module C4. Due to the material recovery potential of the product and material and energy recovery potential of its packaging, recycled raw materials lead to avoided virgin material production and the energy recovered from incineration replaces electricity and heat from primary sources. Benefits and loads from incineration and recycling are included in Module D.

Recycling rate of 85% in the calculation is based on world average. Actual recyclability may vary between regions.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard 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.

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.

This LCA study includes the provision of all materials, transportation, energy and emission flows, and end of life processing of product. All industrial processes from raw material acquisition and pre-processing, production, product distribution and installation and end-of-life management are included. Due to lack of data, some ancillary materials are excluded but they do not exceed the 1% cut-off criteria. These include materials which are used in the product manufacturing only in very small amounts and have a negligible impact on the emissions of the product.

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.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	No allocation
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

All estimations and assumptions regarding the cut off criteria and the allocation are declared in the part "Cut-off Criteria except the estimations/assumptions below:

Proxy data is used for certain materials due to their unavailability in the database.
- Module A1: Steel elements are assumed to be made of virgin materials.

- Module A2, A4 & C2: Vehicle capacity utilization volume factor is assumed to be 1 which means full load. It may vary but as the role of transportation emission in total results is small, the variety in load is assumed to be negligible. To be conservative, empty returns are included in this study as implemented through an average load factor in the Ecoinvent transport datapoints.
- Module A4: Transportation does not cause losses as products are packaged properly. Also, volume capacity utilization factor is assumed to be 1 for the nested packaged products. Additionally, transportation distances are assumed based on the lorry shipment distance from supplier to market warehouses.
- Module A5: Packaging waste is declared as installation waste.
- Module C2: Transportation distance to waste handling facility is estimated as 100 km and the transportation method is assumed as lorry.
- Module C3, C4, D: The product undergoes separate collection and a certain percentage of each material is assumed to be recycled, incinerated and landfilled. Ash from incineration processes is assumed negligible. The recycled end-of-life materials are assumed to serve as secondary raw materials in manufacturing while the materials incinerated displace electricity and heat production.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	+/-0.83

The averaging of products is calculated based on the various product coatings in the series. The declared unit 1 kg of phosphate screw is representative for a product consisting of a screw with total weight of 0.00157. The products included in the averaging are also drywall screws, but with Zn coating. They share the function of connecting drywall boards to metal substructures.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 environmental data sources follow the methodology ‘allocation, Cut-off, EN 15804+A2‘.

ENVIRONMENTAL IMPACT DATA

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

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1,36E+00	4,46E-03	1,32E+00	2,68E+00	1,33E-01	6,17E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,21E-02	1,81E-02	7,35E-04	-1,80E+00
GWP – fossil	kg CO_2e	1,36E+00	4,45E-03	1,38E+00	2,74E+00	1,33E-01	1,00E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,20E-02	1,81E-02	7,35E-04	-1,81E+00
GWP – biogenic	kg CO_2e	6,92E-04	7,43E-07	-5,88E-02	-5,82E-02	2,07E-05	6,07E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,36E-05	-5,42E-05	-2,34E-07	9,28E-03
GWP – LULUC	kg CO_2e	6,56E-04	1,99E-06	2,59E-03	3,25E-03	7,18E-05	3,76E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,71E-05	2,13E-05	4,20E-07	-7,81E-04
Ozone depletion pot.	kg CFC_{-11}e	1,09E-08	6,58E-11	1,22E-08	2,32E-08	1,91E-09	1,23E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,78E-10	1,95E-10	2,13E-11	-9,00E-09
Acidification potential	mol H^+e	5,44E-03	1,52E-05	6,76E-03	1,22E-02	3,91E-03	7,30E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,41E-04	1,94E-04	5,21E-06	-6,95E-03
EP-freshwater[2)]	kg Pe	4,99E-04	3,47E-07	5,78E-04	1,08E-03	4,16E-06	2,83E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,87E-06	9,82E-06	6,04E-08	-8,41E-04
EP-marine	kg Ne	1,16E-03	4,99E-06	1,29E-03	2,45E-03	9,72E-04	3,58E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,57E-05	4,31E-05	1,99E-06	-1,42E-03
EP-terrestrial	mol Ne	1,26E-02	5,43E-05	1,31E-02	2,57E-02	1,08E-02	3,45E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,01E-04	4,86E-04	2,17E-05	-1,53E-02
POCP ("smog")[3)]	kg NMVOCe	4,15E-03	2,24E-05	4,70E-03	8,87E-03	2,92E-03	9,52E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,95E-04	1,43E-04	7,77E-06	-5,23E-03
ADP-minerals & metals[4)]	kg Sbe	1,03E-05	1,24E-08	7,96E-06	1,83E-05	1,29E-07	2,77E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,17E-07	1,07E-06	1,17E-09	-1,50E-05
ADP-fossil resources	MJ	1,31E+01	6,46E-02	1,81E+01	3,13E+01	1,63E+00	1,11E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,46E-01	2,14E-01	1,80E-02	-1,85E+01
Water use[5)]	m^3e depr.	3,53E-01	3,19E-04	3,36E-01	6,89E-01	4,53E-03	1,19E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,75E-03	3,39E-03	5,20E-05	-4,85E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,21E-07	4,46E-10	5,99E-08	1,82E-07	3,92E-09	1,20E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,18E-09	2,71E-09	1,19E-10	-1,25E-07
Ionizing radiation[6)]	kBq U235e	2,78E-02	5,63E-05	1,70E-01	1,98E-01	7,30E-04	1,27E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,03E-04	7,69E-04	1,13E-05	-6,07E-02
Ecotoxicity (freshwater)	CTUe	4,23E+00	9,14E-03	4,12E+00	8,36E+00	1,20E-01	5,06E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,32E-02	1,24E-01	1,51E-03	-5,03E+00
Human toxicity, cancer	CTUh	1,54E-09	7,35E-13	3,62E-10	1,90E-09	2,82E-11	1,19E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,98E-11	1,45E-11	1,36E-13	-2,44E-09
Human tox. non-cancer	CTUh	1,18E-08	4,18E-11	1,28E-08	2,47E-08	3,95E-10	7,64E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,81E-10	9,28E-10	3,11E-12	-1,78E-08
SQP[7)]	-	4,31E+00	6,51E-02	1,06E+01	1,50E+01	1,25E-01	7,55E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,45E-01	4,05E-01	3,55E-02	-5,94E+00

6) 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.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	1,29E+00	8,86E-04	2,94E+00	4,23E+00	1,24E-02	-6,33E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,06E-02	3,33E-02	1,74E-04	-1,64E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	5,32E-01	5,32E-01	0,00E+00	-5,32E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,18E-01
Total use of renew. PER	MJ	1,29E+00	8,86E-04	3,47E+00	4,76E+00	1,24E-02	-1,16E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,06E-02	3,33E-02	1,74E-04	-1,53E+00
Non-re. PER as energy	MJ	1,31E+01	6,46E-02	1,59E+01	2,91E+01	1,63E+00	1,11E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,46E-01	2,14E-01	1,80E-02	-1,85E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	3,34E-02	3,34E-02	0,00E+00	-3,34E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,80E-02
Total use of non-re. PER	MJ	1,31E+01	6,46E-02	1,60E+01	2,91E+01	1,63E+00	-2,23E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,46E-01	2,14E-01	1,80E-02	-1,85E+01
Secondary materials	kg	1,17E-01	2,75E-05	6,00E-03	1,23E-01	7,75E-04	1,51E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,34E-04	2,48E-04	4,53E-06	-1,71E-01
Renew. secondary fuels	MJ	1,56E-04	3,49E-07	1,36E-02	1,37E-02	1,67E-06	6,35E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,20E-06	1,13E-05	9,39E-08	-2,22E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	7,65E-03	9,55E-06	9,37E-03	1,70E-02	1,10E-04	8,16E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,58E-05	9,35E-05	1,88E-05	-1,10E-02

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	5,49E-01	1,10E-04	1,12E-01	6,61E-01	2,15E-03	2,44E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,04E-03	1,67E-03	1,99E-05	-8,07E-01
Non-hazardous waste	kg	2,83E+00	2,03E-03	2,80E+00	5,63E+00	2,90E-02	3,64E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,14E-02	4,70E-02	4,55E-04	-4,68E+00
Radioactive waste	kg	6,89E-06	1,38E-08	4,15E-05	4,84E-05	1,78E-07	3,13E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,75E-07	1,89E-07	2,77E-09	-1,54E-05

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	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	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	1,27E-02	1,27E-02	0,00E+00	2,30E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	6,67E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,05E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,10E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,44E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	1,35E+00	4,43E-03	1,37E+00	2,73E+00	1,32E-01	1,06E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,19E-02	1,81E-02	7,28E-04	-1,80E+00
Ozone depletion Pot.	kg CFC_{-11}e	1,24E-08	5,25E-11	1,06E-08	2,31E-08	1,51E-09	1,00E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,82E-10	1,61E-10	1,69E-11	-8,76E-09
Acidification	kg SO_2e	4,42E-03	1,16E-05	5,62E-03	1,01E-02	3,12E-03	5,22E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,08E-04	1,56E-04	3,86E-06	-5,66E-03
Eutrophication	kg PO_4^3e	8,18E-04	2,83E-06	1,15E-03	1,97E-03	3,42E-04	1,86E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,24E-05	2,22E-05	1,23E-06	-9,83E-04
POCP (“smog”)	kg C_2H_4e	5,87E-04	1,03E-06	3,19E-04	9,08E-04	1,55E-04	4,55E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,33E-05	9,24E-06	3,65E-07	-8,02E-04
ADP-elements	kg Sbe	1,02E-05	1,21E-08	7,79E-06	1,80E-05	1,28E-07	2,55E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,15E-07	1,07E-06	1,14E-09	-1,49E-05
ADP-fossil	MJ	1,27E+01	6,37E-02	1,54E+01	2,81E+01	1,61E+00	1,09E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,34E-01	2,02E-01	1,79E-02	-1,75E+01

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	1,36E+00	4,46E-03	1,38E+00	2,74E+00	1,33E-01	1,00E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,20E-02	1,82E-02	7,35E-04	-1,81E+00

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH4 fossil, CH4 biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO2 is set to zero.

THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15802+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools

Tool verifier: Magaly Gonzalez Vazquez
Tool verification validity: 27 March 2025 - 26 March 2028

Imane Uald lamkaddam, as an authorized verifier acting for EPD Hub Limited

14.08.2025

APPENDIX

PRODUCT PORTFOLIO INCLUDED IN SCOPE

The following list of products are included in the scope of this declaration, as represented by Drywall screw 6x1-1/4" PBH S (item number 84291)

Item no.	Item description	Weight per piece [kg]
10190	Sheet metal screw 8x1/2" SHWH	0.001499
10262	Drywall screw 8x1/2" PTH S LATH ZN	0.001791
10263	Drywall screw 8x3/4" PTH S LATH ZN	0.002234
10264	Drywall screw 8x1 PTH S LATH ZN	0.002613
10265	Drywall screw 8x1 1/4" PTH S LATH ZN	0.00163
84290	Drywall screw 6x1-1/4" PBH SD	0.00177
84291	Drywall screw 6x1-1/4" PBH S	0.00163
84293	Drywall screw 8x2-5/8" PBH SD	0.00477
84297	Drywall screw 6x1 PBH S	0.001338
84310	Drywall screw 6x2 PBH S	0.00238
84311	Drywall screw 6x2-1/4" PBH S	0.00266
84319	Drywall screw 7x2-1/2" PBH S	0.00359
84323	Drywall screw 6x1-5/8" PBH S	0.002004
84328	Drywall screw 8x3 PBH S	0.00489
84329	Drywall screw 6x1-1/8" PBH S	0.001471
84331	Wood screw 6x2 1/4" SFH S TRIM	0.00252
86198	Drywall screw 6x1 1/8" PBH S HI/LO	0.001611
86199	Drywall screw 6x1 1/4" PBH S HI/LO	0.00177
86200	Drywall screw 6x1 5/8" PBH S HI/LO	0.00195
86201	Drywall screw 6x2 PBH S HI/LO	0.00252
86202	Drywall screw 7 X 2 1/4 PBH S HI/LO	0.00288
86204	Drywall screw 8x3 PBH S HI/LO	0.00442
86206	Drywall screw 7x7/16" PPH S FRMR	0.001093
86207	Drywall screw 6x7/16" PPH S	0.00111
86208	Drywall screw 8x1/2" PTH S	0.001791
86210	Wood screw 6 X 1-5/8 SFH S TRIM	0.00182
86211	Drywall screw 6x1 PBH SD	0.001488
86212	Drywall screw 6x1 PBH SD ZN	0.00143
86213	Drywall screw 6x 1-1/8" PBH SD	0.001602
86214	Drywall screw 6x1 1/8" PBH SD ZN	0.001641
86215	Drywall screw 6x1 1/4" PBH SD ZN	0.00177
86216	Drywall screw 6x1-5/8" PBH SD	0.00195
86217	Drywall screw 6x1 5/8" PBH SD ZN	0.002212
86218	Drywall screw 6x1 7/8" PBH SD	0.00243
86219	Drywall screw 6x1 7/8" PBH SD ZN	0.00243
86220	Drywall screw 8x2 3/8" PBH SD	0.00391
86221	Drywall screw 8x2 3/8" PBH SD ZN	0.00391
86222	Drywall screw 8x2 5/8" PBH SD ZN	0.00477
86223	Drywall screw 8x3 PBH SD	0.00535
86224	Drywall screw 8x3 PBH SD ZN	0.00535
86302	Drywall screw 7x2 1/2 PBH S HI/LO	0.00326
86894	Drywall screw 10x4 1/2" PBH S	0.01097
228238	Drywall screw S-DS01Z 3,0x22	0.000995
228239	Drywall screw S-DS01Z 3,5x25	0.001415
228240	Drywall screw S-DS01Z 3,5x32	0.001695
273769	Drywall screw S-DS07Z 4,0x14	0.000785
273770	Drywall screw S-DD07Z 4,0x13	0.000725
286947	Drywall screw S-DS01Z 3,0x20	0.000905
286948	Drywall screw S-DS01Z 3,0x20 PL03	0.000905
286949	Drywall screw S-DS01Z 3,5x22	0.001235
286950	Drywall screw S-DS14Z 3,0x20	0.000975
388457	Drywall screw S-DS05B 3,9x11	0.001173
411517	Drywall screw 6x1 1/4" PBH SD CRC	0.00177
413489	Drywall screw 6x1 7/8" PBH SD CRC	0.00243
2276739	Drywall screw 6x1 PBH S ZN	0.00129
2276921	Drywall screw 6x1-1/8 PBH S ZN	0.00142
388249	Eyelag screw 1/4x3 EL WS ZN	0.01177
288574	Eyelag screw 1/4x2-3/4" EL S ZN	0.01269
388251	Eyelag screw 1/4x4 EL WS ZN	0.01607