

# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Self tapping threaded stud

Hilti AG



EPD HUB, EPD number HUB-2538

Published on 21.02.2025, last updated on 21.02.2025, valid until 21.02.2030

## GENERAL INFORMATION

### MANUFACTURER

<b>Manufacturer</b>	Hilti AG
<b>Address</b>	Feldkircherstrasse 100, , FL-9494, Schaan, , CH
<b>Contact details</b>	Sustainability@Hilti.com
<b>Website</b>	www.hilti.com

### EPD STANDARDS, SCOPE AND VERIFICATION

<b>Program operator</b>	EPD Hub, hub@epdhub.com
<b>Reference standard</b>	EN 15804+A2:2019 and ISO 14025
<b>PCR</b>	EPD Hub Core PCR Version 1.1, 5 Dec 2023
<b>Sector</b>	Construction product
<b>Category of EPD</b>	Third party verified EPD
<b>Parent EPD number</b>	-
<b>Scope of the EPD</b>	Cradle to gate with options, A4-A5, and modules C1-C4, D
<b>EPD author</b>	Elise Janssen
<b>EPD verification</b>	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
<b>EPD verifier</b>	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

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

<b>Product name</b>	Self tapping threaded stud
<b>Additional labels</b>	See appendix
<b>Product reference</b>	2345767
<b>Place of production</b>	Schaan, Liechtenstein
<b>Period for data</b>	Calendar year 2023
<b>Averaging in EPD</b>	Multiple products
<b>Variation in GWP-fossil for A1-A3</b>	50 %

### ENVIRONMENTAL DATA SUMMARY

<b>Declared unit</b>	1 kg
<b>Declared unit mass</b>	1 kg
<b>GWP-fossil, A1-A3 (kgCO<sub>2</sub>e)</b>	3.38E+00
<b>GWP-total, A1-A3 (kgCO<sub>2</sub>e)</b>	3,22E+00
<b>Secondary material, inputs (%)</b>	33.6
<b>Secondary material, outputs (%)</b>	81.8
<b>Total energy use, A1-A3 (kWh)</b>	15.8
<b>Net freshwater use, A1-A3 (m<sup>3</sup>)</b>	0.01

## 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. Hilti generated annual sales of more than CHF 6.3 billion in 2022. 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 making construction better, based on a passionate and inclusive global team and a caring and performance-oriented culture.

### PRODUCT DESCRIPTION

Hilti S-BT Threaded Stud Portfolio consists of Duplex coated carbon steel and stainless steel screws. M8/M10/W10 variants are included in 2 lengths. Based on the intended use of the product the threaded stud will come in the sales box with flange nuts, hex nuts + spring washers, conductivity discs or without elements. Typical application for S-BT threaded studs include fastening on steel for multipurpose fastening, grating fastening and electrical connections.

Further information can be found at [www.hilti.com](http://www.hilti.com).

### PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	Germany
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	
Biogenic carbon content in packaging, kg C	0.04

### FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit VP-011	1 kg
Mass per declared unit VP-012	1 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.

The threaded stud is made from carbon steel. The referenced product is threaded stud S-BT-Gx M8/7, which is a threaded stud, used for fastening on steel. The steel is BOF. 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 stud is coated and finally packaged and distributed. The manufacturing process requires electricity for powering the production equipment. A wooden pallet and cardboard are used as packaging materials for transporting the screw to the dedicated market places.

## 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 from the supplier to the warehouses in Hilti Liechtenstein. Vehicle capacity utilization volume factor 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.

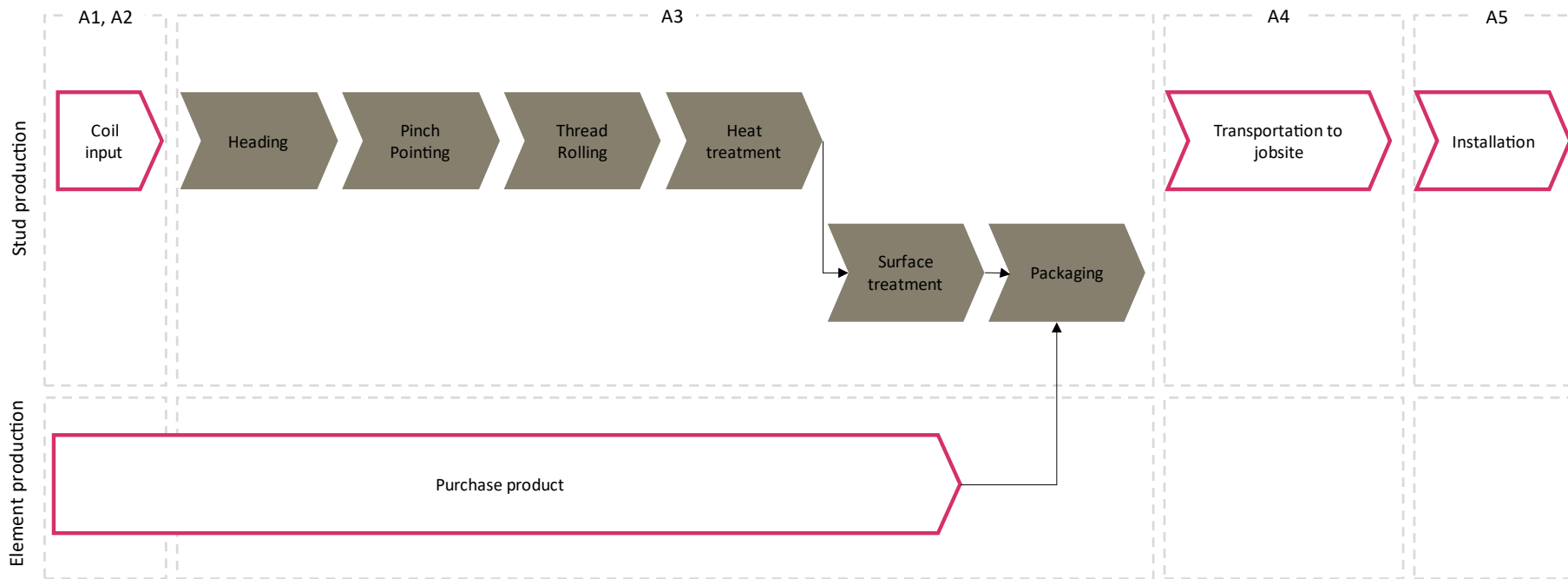
Air, soil, and water impacts during the use phase have not been studied.

### **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 of 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.

### 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

### AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Representative product
Variation in GWP-fossil for A1-A3	50%

The representative product is threaded stud S-BT-Gx M8/7 which is a duplex coated carbon steel stud.

The products included in the averaging are carbon steel or stainless steel, coated studs but different screw lengths, diameter, and/or components. They share the function of fastening on metal substructures.

### LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1 and One Click LCA databases as sources of environmental data.

# ENVIRONMENTAL IMPACT DATA

## CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total <sup>1)</sup>	kg CO <sub>2</sub> e	2,76E+00	5,62E-02	4,03E-01	3,22E+00	2,78E-04	1,77E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,04E-02	2,23E-02	8,99E-04	-1,64E+00
GWP – fossil	kg CO <sub>2</sub> e	2,76E+00	5,61E-02	5,60E-01	3,38E+00	2,78E-04	1,67E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,04E-02	2,22E-02	8,99E-04	-1,64E+00
GWP – biogenic	kg CO <sub>2</sub> e	4,72E-04	1,89E-07	-1,60E-01	-1,59E-01	6,29E-08	1,60E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP – LULUC	kg CO <sub>2</sub> e	2,30E-03	2,51E-05	2,19E-03	4,51E-03	1,24E-07	3,76E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,63E-06	2,61E-05	5,14E-07	-1,12E-03
Ozone depletion pot.	kg CFC-11e	5,37E-08	8,29E-10	2,11E-08	7,56E-08	4,10E-12	2,03E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,53E-10	2,39E-10	2,60E-11	-9,53E-09
Acidification potential	mol H <sup>+</sup> e	1,48E-02	1,91E-04	2,09E-03	1,71E-02	9,47E-07	1,72E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,53E-05	2,38E-04	6,37E-06	-8,21E-03
EP-freshwater <sup>2)</sup>	kg Pe	7,94E-04	4,37E-06	1,95E-04	9,94E-04	2,16E-08	7,43E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,06E-07	1,20E-05	7,39E-08	-1,64E-03
EP-marine	kg Ne	2,96E-03	6,29E-05	4,91E-04	3,51E-03	3,11E-07	3,17E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,16E-05	5,28E-05	2,43E-06	-1,60E-03
EP-terrestrial	mol Ne	3,15E-02	6,85E-04	4,54E-03	3,68E-02	3,39E-06	5,14E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,26E-04	5,96E-04	2,65E-05	-1,53E-02
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	1,13E-02	2,82E-04	1,68E-03	1,32E-02	1,40E-06	2,37E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,20E-05	1,76E-04	9,50E-06	-5,80E-03
ADP-minerals & metals <sup>4)</sup>	kg Sbe	7,45E-05	1,57E-07	7,97E-06	8,27E-05	7,75E-10	2,87E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,89E-08	1,31E-06	1,43E-09	-2,39E-06
ADP-fossil resources	MJ	4,73E+01	8,15E-01	5,81E+00	5,39E+01	4,03E-03	2,69E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,50E-01	2,62E-01	2,21E-02	-2,16E+01
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	8,18E-01	4,02E-03	1,94E-01	1,02E+00	1,99E-05	1,26E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,42E-04	4,15E-03	6,37E-05	-6,01E-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, PEF

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	6,11E-09	5,62E-09	2,97E-08	4,14E-08	2,78E-11	6,81E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,04E-09	3,32E-09	1,45E-10	-1,63E-07
Ionizing radiation <sup>6)</sup>	kBq 11235e	9,22E-03	7,10E-04	3,36E-02	4,35E-02	3,51E-06	1,72E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,31E-04	9,43E-04	1,39E-05	-5,87E-02
Ecotoxicity (freshwater)	CTUe	5,43E-01	1,15E-01	5,66E+00	6,32E+00	5,70E-04	3,87E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,13E-02	1,52E-01	1,85E-03	-1,15E+01
Human toxicity, cancer	CTUh	3,99E-11	9,27E-12	1,03E-09	1,08E-09	4,58E-14	8,00E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,71E-12	1,78E-11	1,66E-13	-3,49E-09
Human tox. non-cancer	CTUh	9,28E-10	5,28E-10	8,30E-09	9,75E-09	2,61E-12	1,48E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,73E-11	1,14E-09	3,81E-12	-2,28E-08
SQP <sup>7)</sup>	-	4,07E-01	8,21E-01	1,24E+01	1,36E+01	4,06E-03	3,06E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,51E-01	4,97E-01	4,34E-02	-1,08E+01

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 <sup>8)</sup>	MJ	4,07E+00	1,12E-02	1,28E+01	1,69E+01	5,52E-05	1,93E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,06E-03	4,08E-02	2,13E-04	-2,34E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,30E+00	1,30E+00	0,00E+00	-1,30E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,27E+00
Total use of renew. PER	MJ	4,07E+00	1,12E-02	1,41E+01	1,82E+01	5,52E-05	-1,30E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,06E-03	4,08E-02	2,13E-04	-1,07E+00
Non-re. PER as energy	MJ	3,57E+01	8,15E-01	3,62E+00	4,01E+01	4,03E-03	2,69E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,50E-01	2,62E-01	2,21E-02	-2,16E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	4,82E-01	4,82E-01	0,00E+00	-4,82E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,14E-03
Total use of non-re. PER	MJ	3,57E+01	8,15E-01	4,10E+00	4,06E+01	4,03E-03	-4,55E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,50E-01	2,62E-01	2,21E-02	-2,16E+01
Secondary materials	kg	3,36E-01	3,47E-04	5,04E-02	3,87E-01	1,72E-06	5,27E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,40E-05	3,04E-04	5,55E-06	-1,06E-01
Renew. secondary fuels	MJ	2,49E-04	4,41E-06	2,08E-02	2,10E-02	2,18E-08	3,63E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,12E-07	1,38E-05	1,15E-07	-7,33E-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 <sup>3</sup>	8,19E-03	1,20E-04	4,82E-03	1,31E-02	5,96E-07	1,74E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,22E-05	1,15E-04	2,29E-05	-1,46E-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	1,61E-02	1,38E-03	7,52E-02	9,27E-02	6,83E-06	2,06E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,55E-04	2,05E-03	2,44E-05	-6,59E-01
Non-hazardous waste	kg	3,30E-01	2,55E-02	1,70E+00	2,06E+00	1,26E-04	4,02E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,71E-03	5,76E-02	5,57E-04	-1,54E+01
Radioactive waste	kg	2,57E-03	1,77E-07	8,59E-06	2,58E-03	8,73E-10	5,60E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,26E-08	2,37E-07	3,43E-09	-1,59E-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	4,04E-03	0,00E+00	7,22E-03	1,13E-02	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	8,18E-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	5,21E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

## VERIFICATION STATEMENT

### VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

### THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited  
21.02.2025



## APPENDIX

Item number	Item name	Weight [kg]
2345766	Threaded stud S-BT-GF M8/7 AN 6 HL	0.0058
2345768	Threaded stud S-BT-MF M8/7 AN 6 HL	0.0128
2345769	Threaded stud S-BT-MF M8/15 AN 6 HL	0.0162
2346060	Threaded stud S-BT-MF M10/15 AN 6 HL	0.0247
2346061	Threaded stud S-BT-MF W10/15 AN 6 HL	0.0215
2346070	Elec. connector S-BT-EF M8/15 AN 6 HL	0.01683
2346071	Elec. connector S-BT-EF M10/15 AN 6 HL	0.02933
2346072	Elec. connector S-BT-EF W10/15 AN 6 HL	0.0245
2346077	Elec. connector S-BT-EF M10 HC 120 HL	0.03593
2346078	Elec. connector S-BT-EF W10 HC 4/0 HL	0.0379
2345767	Threaded stud S-BT-GR M8/7 SN 6 HL	0.0062
2346062	Threaded stud S-BT-MR M8/7 SN 6 HL	0.0132
2346063	Threaded stud S-BT-MR M8/15 SN 6 HL	0.0166
2346064	Threaded stud S-BT-MR M10/15 SN 6 HL	0.0251
2346065	Threaded stud S-BT-MR W10/15 SN 6 HL	0.0219
2346066	Threaded stud S-BT-MR M8/7 SN 6 HL AL	0.0126
2346067	Threaded stud S-BT-MR M8/15 SN 6 HL AL	0.0166
2346068	Threaded stud S-BT-MR M10/15 SN 6 HL AL	0.0251
2346069	Threaded stud S-BT-MR W10/15 SN 6 HL AL	0.0219
2346073	Elec. connector S-BT-ER M8/15 SN 6 HL	0.01705
2346074	Elec. connector S-BT-ER M10/15 SN 6 HL	0.02955
2346075	Elec. connector S-BT-ER W10/15 SN 6 HL	0.0257
2346079	Elec. connector S-BT-ER M10 HC 120 HL	0.03615
2346080	Elec. connector S-BT-ER W10 HC 4/0 HL	0.0381