



# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

CFS-MSL Modular Fire Sleeve

Hilti AG



**EPD HUB, HUB-3860**

Published on 22.08.2025, last updated on 22.08.2025, valid until 22.08.2030

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, FL-9494, 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	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	Siti Nur Syaza Abdul Rahman, Emily Hooper, Hilti AG
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

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	CFS-MSL Modular Fire Sleeve
Additional labels	-
Product reference	2337019, 2337060, 2337061
Place(s) of raw material origin	USA, Germany, China
Place of production	Minnesota, North America
Place(s) of installation and use	United States
Period for data	Calendar year 2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	0,17
A1-A3 Specific data (%)	20,1

### ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg of CFS-MSL Modular Fire Sleeve
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO <sub>2</sub> e)	5,99E+00
GWP-total, A1-A3 (kgCO <sub>2</sub> e)	5,91E+00
Secondary material, inputs (%)	15,4
Secondary material, outputs (%)	85
Total energy use, A1-A3 (kWh)	18,2
Net freshwater use, A1-A3 (m <sup>3</sup> )	1,2

# 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 34,000 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 making construction better, based on a passionate and inclusive global team and a caring and performance-oriented culture.

## PRODUCT DESCRIPTION

Modular fire-rated cable pathway for optimal flexibility, cable capacity needs and retrofit ability.

Product Class: Ultimate

Application temperature range: 23 - 122 °F

Storage and transportation temperature range: 23 - 122 °F

### Features:

- 1) Highest cable capacity – our largest pre-formed, fire-rated cable pathway for low-voltage installations.
- 2) Always retrofittable thanks to symmetrical half-shell design – no destructive steps involved.
- 3) Can be easily ganged in any combination of modular sleeve sizes.
- 4) Suitable for sustainable construction – Hilti fire sleeves use mechanical assembly techniques.

### Applications:

- 1) Firestopping low-voltage cable penetrations for single and cable bundles.
- 2) Small- to medium-sized rectangular openings in walls, ceilings and floors.
- 3) Ideal for frequent cable moves and additions.
- 4) For use in concrete, masonry and drywall.

CFS-MSL has been tested and fulfils VOC Emissions requirements according to:

California Department of Public Health (CDPH) V1.2-2017 Classroom and Office Scenario

And

South Coast Air Quality Management District (SCAQMD) Rule 1168, “Architectural Sealants”

VOC Content: 16g/L VOC (Limit: 250g/L).

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

## PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	70,2	USA
Minerals	21,1	Germany, China
Fossil materials	8,6	Germany
Bio-based materials	0,1	Germany

### BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0,000458
Biogenic carbon content in packaging, kg C	0,021

### FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1kg of CFS-MSL Modular Fire Sleeve
Mass per declared unit	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.

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

The product consists of a proprietary chemical formulation and metals that were formed and packaged in a paper box. The formulation consists of modular fire-rated cable pathway for optimal flexibility, cable capacity needs and retrofit-ability. The materials are sourced from various suppliers across United States and Germany, with an estimated average transport distance of 400 km by truck within United States and 1000km by truck and 7500km by ship within Germany before arriving at Hilti’s production facility in USA. At this site, core manufacturing processes—including formulation blending, process integration, and final packaging—are carried out. Lubricating oil was utilized as an ancillary material during the manufacturing process and is assumed to remain within the system boundaries, without exiting as waste or emission. No secondary materials or fuels are used throughout the manufacturing process. The finished product is temporarily stored in bulk at Hilti’s distribution center before final delivery.

### 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.

Transportation distance is defined according to the PCR. A sales-weighted average transport distance from the production plant in United States to a representative place of installation in each sales region is used for A4 (equating to 985,71 km by truck and 2214,29 km by container ship for this product due to its global distribution). Vehicle capacity utilization volume factor is assumed to be 1 which means full load. In reality, it 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 products are packaged properly. Also, volume capacity utilization factor is assumed to be

1 for the nested packaged products. Disposal of the packaging, including some residual product within, is accounted for in A5. Emissions due to installation are assumed to be negligible as they are typically performed using simple manual tools which do not consume energy.

### **PRODUCT USE AND MAINTENANCE (B1-B7)**

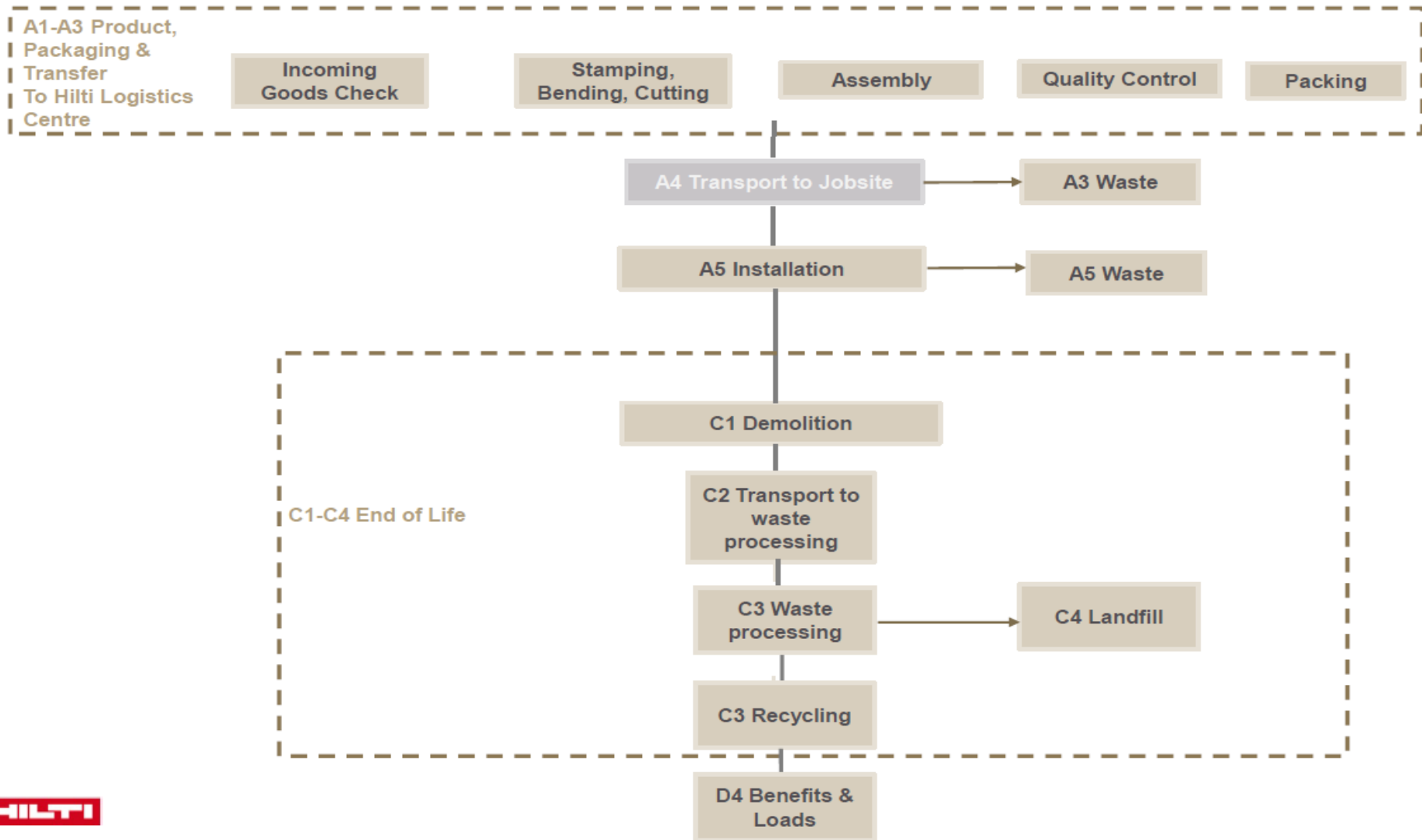
This EPD does not cover the use phase.

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

### **PRODUCT END OF LIFE (C1-C4, D)**

The consumption of energy and natural resources during the demolition process is considered negligible. Given the product's modular and pre-formed nature, it can be easily dismantled and separated from the building at end-of-life. The steel components are prioritized for material recovery through recycling, followed by the polymer elements, which are assumed to be subjected to recycling processes with partial energy recovery. Remaining minor constituents that are not suitable for reuse or recovery are assumed to be disposed of in a landfill, in accordance with standard regional practices. A transportation distance of 50 km to the landfill is assumed, utilizing a lorry transport method. Generic data for recycling and reuse rates are applied based on global averages sourced from the Ecoinvent database.

# 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, and emission flows, and end-of-life processing of product. All industrial processes from raw material acquisition, pre-processing, production, product distribution, installation and end-of-life management are included. Due to lack of data, materials which are used in the product manufacturing only in very small amounts and have a negligible impact on the emissions of the product, but they do not exceed the 1% cut-off criteria. The production of capital equipment, construction activities, 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

### PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	0,17

CFS-MSL is available in multiple sizes: S, M, and L. The chemical formulation, manufacturing processes and locations remain identical in every case. The averaging version based on the total weight is used as the representative



product for this EPD as it accounts for the averaging, and the variability in GWP-fossil for A1-A3 is within the allowed range. All product variants were assessed separately and in full in order to document this.

### 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. Allocation used in Ecoinvent 3.10.1 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 <sup>1)</sup>	kg CO <sub>2</sub> e	3,42E+00	9,45E-02	2,40E+00	5,91E+00	1,35E-01	7,90E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,30E-02	1,92E-02	9,37E-04	-1,96E-03
GWP – fossil	kg CO <sub>2</sub> e	3,43E+00	9,44E-02	2,47E+00	5,99E+00	1,35E-01	1,87E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,30E-02	1,92E-02	9,36E-04	-1,43E-03
GWP – biogenic	kg CO <sub>2</sub> e	-1,11E-02	2,05E-05	-7,48E-02	-8,59E-02	2,90E-05	7,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,38E-06	-4,08E-05	-2,98E-07	-5,33E-04
GWP – LULUC	kg CO <sub>2</sub> e	1,34E-03	4,40E-05	2,62E-03	4,01E-03	6,28E-05	1,02E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,90E-05	2,37E-05	5,35E-07	-4,51E-06
Ozone depletion pot.	kg CFC-11e	1,62E-08	1,40E-09	1,02E-07	1,19E-07	1,99E-09	1,88E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,01E-10	2,58E-10	2,71E-11	-1,85E-11
Acidification potential	mol H <sup>+</sup> e	1,22E-02	8,41E-04	7,74E-03	2,07E-02	1,08E-03	7,52E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,43E-04	2,29E-04	6,64E-06	-9,12E-06
EP-freshwater <sup>2)</sup>	kg Pe	1,90E-04	6,43E-06	3,36E-04	5,33E-04	9,43E-06	4,15E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,34E-06	1,24E-05	7,70E-08	-8,79E-07
EP-marine	kg Ne	2,84E-03	2,31E-04	1,42E-03	4,50E-03	2,99E-04	1,20E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,64E-05	5,06E-05	2,53E-06	-1,44E-06
EP-terrestrial	mol Ne	2,24E-02	2,55E-03	1,44E-02	3,93E-02	3,30E-03	2,38E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,05E-04	5,72E-04	2,76E-05	-1,42E-05
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	7,85E-03	8,19E-04	1,18E-02	2,05E-02	1,09E-03	9,08E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,99E-04	1,69E-04	9,90E-06	-4,53E-06
ADP-minerals & metals <sup>4)</sup>	kg Sbe	2,80E-05	2,30E-07	4,67E-06	3,29E-05	3,34E-07	1,21E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,41E-07	1,36E-06	1,49E-09	-2,10E-09
ADP-fossil resources	MJ	4,51E+01	1,32E+00	3,32E+01	7,97E+01	1,91E+00	1,70E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-01	2,58E-01	2,30E-02	-2,32E-02
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	1,41E+00	6,02E-03	1,52E+01	1,67E+01	8,81E-03	4,66E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,80E-03	4,64E-03	6,63E-05	-4,62E-04

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 PO<sub>4</sub>e; 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	2,66E-07	7,99E-09	3,97E-08	3,14E-07	1,19E-08	1,01E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,41E-09	3,10E-09	1,51E-10	-7,70E-11
Ionizing radiation <sup>6)</sup>	kBq 11235e	8,10E-02	1,05E-03	8,49E-01	9,31E-01	1,54E-03	1,12E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,88E-04	2,19E-03	1,44E-05	-4,36E-04
Ecotoxicity (freshwater)	CTUe	1,29E+01	1,71E-01	4,05E+00	1,71E+01	2,50E-01	6,02E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,53E-02	1,50E-01	1,93E-03	-2,88E-03
Human toxicity, cancer	CTUh	1,59E-09	1,65E-11	2,57E-10	1,86E-09	2,35E-11	1,35E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,31E-12	1,72E-11	1,73E-13	-3,06E-13
Human tox. non-cancer	CTUh	1,47E-08	7,56E-10	1,09E-08	2,64E-08	1,12E-09	7,15E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,77E-10	1,17E-09	3,97E-12	-1,18E-11
SQP <sup>7)</sup>	-	4,25E+00	1,10E+00	4,50E+00	9,85E+00	1,65E+00	1,25E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,60E-01	5,02E-01	4,52E-02	-1,96E-02

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	1,34E+00	1,67E-02	3,26E+00	4,61E+00	2,44E-02	-8,21E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,27E-03	4,81E-02	2,22E-04	-7,98E-03
Renew. PER as material	MJ	0,00E+00	0,00E+00	6,59E-01	6,59E-01	0,00E+00	-6,59E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,82E-03
Total use of renew. PER	MJ	1,34E+00	1,67E-02	3,91E+00	5,27E+00	2,44E-02	-1,48E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,27E-03	4,81E-02	2,22E-04	-2,16E-03
Non-re. PER as energy	MJ	4,28E+01	1,32E+00	1,68E+01	6,09E+01	1,91E+00	1,70E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-01	2,58E-01	2,30E-02	-2,32E-02
Non-re. PER as material	MJ	2,71E+00	0,00E+00	2,15E-03	2,72E+00	0,00E+00	-2,15E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-2,71E+00	-8,39E-08
Total use of non-re. PER	MJ	4,55E+01	1,32E+00	1,68E+01	6,37E+01	1,91E+00	1,49E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-01	2,58E-01	-2,69E+00	-2,32E-02
Secondary materials	kg	1,54E-01	5,77E-04	5,45E-02	2,09E-01	8,28E-04	2,81E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,71E-04	3,15E-04	5,78E-06	2,61E-05
Renew. secondary fuels	MJ	2,21E-03	6,07E-06	5,02E-03	7,23E-03	9,05E-06	1,59E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,45E-06	1,46E-05	1,20E-07	4,80E-06
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>	1,18E+00	1,76E-04	1,73E-02	1,20E+00	2,59E-04	-9,40E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,99E-05	1,37E-04	2,39E-05	-1,78E-05

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	5,28E-02	2,16E-03	3,39E-02	8,89E-02	3,13E-03	2,87E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,05E-03	1,69E-03	2,54E-05	-1,04E-04
Non-hazardous waste	kg	1,49E+00	3,83E-02	7,27E-01	2,26E+00	5,60E-02	3,23E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,97E-02	6,09E-02	5,80E-04	-4,25E-03
Radioactive waste	kg	1,63E-05	2,57E-07	9,14E-05	1,08E-04	3,77E-07	2,85E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,20E-07	5,60E-07	3,52E-09	-1,12E-07

### 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	2,90E-01	2,90E-01	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	0,00E+00	0,00E+00	0,00E+00	4,30E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	8,50E-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	2,02E-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 – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,20E-03	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	1,20E-02	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 / ISO 21930

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 <sub>2</sub> e	3,41E+00	9,40E-02	2,46E+00	5,96E+00	1,35E-01	7,02E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,27E-02	1,92E-02	9,28E-04	-1,43E-03
Ozone depletion Pot.	kg CFC <sub>-11</sub> e	1,57E-08	1,12E-09	1,13E-07	1,30E-07	1,59E-09	1,54E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,80E-10	2,13E-10	2,15E-11	-1,53E-11
Acidification	kg SO <sub>2</sub> e	1,01E-02	6,62E-04	6,46E-03	1,73E-02	8,50E-04	5,75E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,10E-04	1,84E-04	4,91E-06	-7,72E-06
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	6,00E-03	9,93E-05	2,27E-03	8,37E-03	1,32E-04	8,55E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,67E-05	2,66E-05	1,56E-06	-9,51E-07
POCP (“smog”)	kg C <sub>2</sub> H <sub>4</sub> e	1,09E-03	4,06E-05	3,72E-04	1,51E-03	5,36E-05	1,69E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,83E-06	1,09E-05	4,65E-07	-4,45E-07
ADP-elements	kg Sbe	2,58E-05	2,25E-07	4,61E-06	3,06E-05	3,26E-07	1,18E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,38E-07	1,36E-06	1,46E-09	-2,06E-09
ADP-fossil	MJ	1,25E+04	1,31E+00	3,28E+01	1,25E+04	1,89E+00	1,51E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,95E-01	2,20E-01	2,28E-02	-1,55E-02

### 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 <sup>9)</sup>	kg CO <sub>2</sub> e	3,43E+00	9,45E-02	2,47E+00	5,99E+00	1,35E-01	1,87E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,30E-02	1,92E-02	9,37E-04	-1,43E-03

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 – CH<sub>4</sub> fossil, CH<sub>4</sub> 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 CO<sub>2</sub> is set to zero.

## THIRD-PARTY 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  
22.08.2025



## APPENDIX

### PRODUCT PORTFOLIO INCLUDED IN SCOPE

The following list of products are included in the scope of this declaration, as represented by averaging the Firestop sleeve CFS-MSL.

Item number	Item designation	Weight [kg]
2337019	Firestop sleeve CFS-MSL S 3x2"	1.557
2337060	Firestop sleeve CFS-MSL M 3x4"	2.361
2337061	Firestop sleeve CFS-MSL L 6x4"	3.531