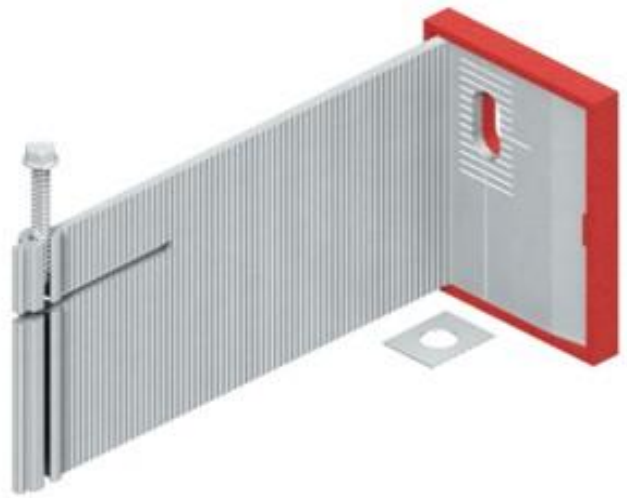
ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

MFT-FOX HI Bracket
Hilti AG



EPD HUB, HUB-4964
Published on 21.01.2026, last updated on 21.01.2026, valid until 20.07.2027.

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Hilti AG
Address	Feldkircherstrasse 100, FL-9494, Schaan, LI
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 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Design phase EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Jessa Valencia, Hilti AG
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen, 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	MFT-FOX HI Bracket
Additional labels	See appendix
Product reference	2084357
Place(s) of raw material origin	Romania, Slovakia
Place of production	Bulgaria
Place(s) of installation and use	Globally
Period for data	01/07/2025-31/07/2025
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	11%
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	3,01

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of MFT-FOX HI
Declared unit mass	1 kg
Mass of packaging	0,035 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	10,3
GWP-total, A1-A3 ($kgCO_2e$)	10,4
Secondary material, inputs (%)	31,4
Secondary material, outputs (%)	67,8
Total energy use, A1-A3 (kWh)	36,6
Net freshwater use, A1-A3 (m^3)	0,08

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

PRODUCT DESCRIPTION

This document relates to the MFT-FOX HI 300 M 11 item as a representative product for the MFT-FOX H, MFT-FOX HI and the MFT-DH products. The MFT-FOX H(I) products cover the same applications and are very similar in material constitution and, therefore, have been summarized in this EPD.

The MFT-FOX H is an aluminum bracket equipped with pre-assembled stainless-steel screw. The MFT-FOX HI products contain an additional component named isolator made of Polypropylene. The MFT-FOX HI 300 M 11 is chosen as a representative product since it displays the highest weight of the product group. These brackets are used to secure ventilated façade substructures to various primary structures, such as concrete, masonry, steel frames, and wood. They are attached to primary structures using anchors or screws. Functioning as helping hand brackets, they enable the installation of horizontal support rails, which provide the structural foundation for façade cladding. The horizontal profiles are secured to the brackets using pre-assembled screws. The brackets are compatible with all types of façade cladding materials, offering versatility in construction. They are available in different lengths ranging from 60 to 300 mm.

The product complies with the CPR based on a harmonized European standard (hEN). For placing the product on the market in the European Union (EU) or European Free Trade Association (EFTA) countries (with the exception of Switzerland), Regulation (EU) No. 305/2011 (CPR) applies. The performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to EN 1090- 1:2009+A1:2011 Standard for execution of steel structures and aluminum structures. The structural parts made of aluminium correspond to the following harmonized standards: EN 1090-1, DIN EN1999-1-1 + DIN EN 1991-1 4 incl. national annexes, DIN 18516-1. The product is CE marked accordingly.

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	93,73	Europe
Minerals	-	-
Fossil materials	6,27	Europe
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	0,05

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of MFT-FOX HI
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	ND	ND	ND	ND	ND	ND	ND	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 = ND. 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 MFT-FOX HI bracket consists of three components: Bracket, Screw and Isolator.

Component name	Component weight per 1 item [kg]	Component weight per 1 kg of product [kg]
Screw mass	0.00870	0.0248
Bracket mass	0.32014	0.9125
Isolator mass	0.02200	0.0627
Total weight	0.35084	1.0000

The bracket is made of aluminum alloy, the screw is made of stainless steel and isolator is from polypropylene. The raw material of the bracket is coming from a supplier located in Romania (57%) and a supplier located in Slovakia (43%), where the initial cold forming occurs. The bracket is then delivered by lorry (1117 km from Slovakia and 568 km from Romania) from both suppliers to the factory located in Bulgaria. The raw material for the isolator is coming from Vienna (Austria) and will be delivered to Lanzenkirchen (Austria) with lorry. The isolator will be produced in Lanzenkirchen (Austria) with injection molding machine. The ready product will then be transferred to Bulgaria by lorry (1208 km). The isolator will be assembled with bracket in Bulgaria. The screw is produced in Taiwan and is transferred as a ready product. It is then transferred from Taiwan to logistic center in Austria, from where it is delivered to Bulgaria. The final product is assembled and packed in the same factory. The loss of material which occurs during the manufacturing process is considered. The waste, which occurs during the manufacturing process, goes for recycling. The cardboard is used as packaging material and is also used for transportation of the product.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site and is assumed as 823 km by truck and 454.55 km by ship (A4). During the installation 1 screw (pre-assembled) and 1 anchor (usually HRD-H 10x60 on concrete) should be fixed per bracket. The energy needed for the installation of 1 kg of declared unit is assumed to 0.05 kWh.

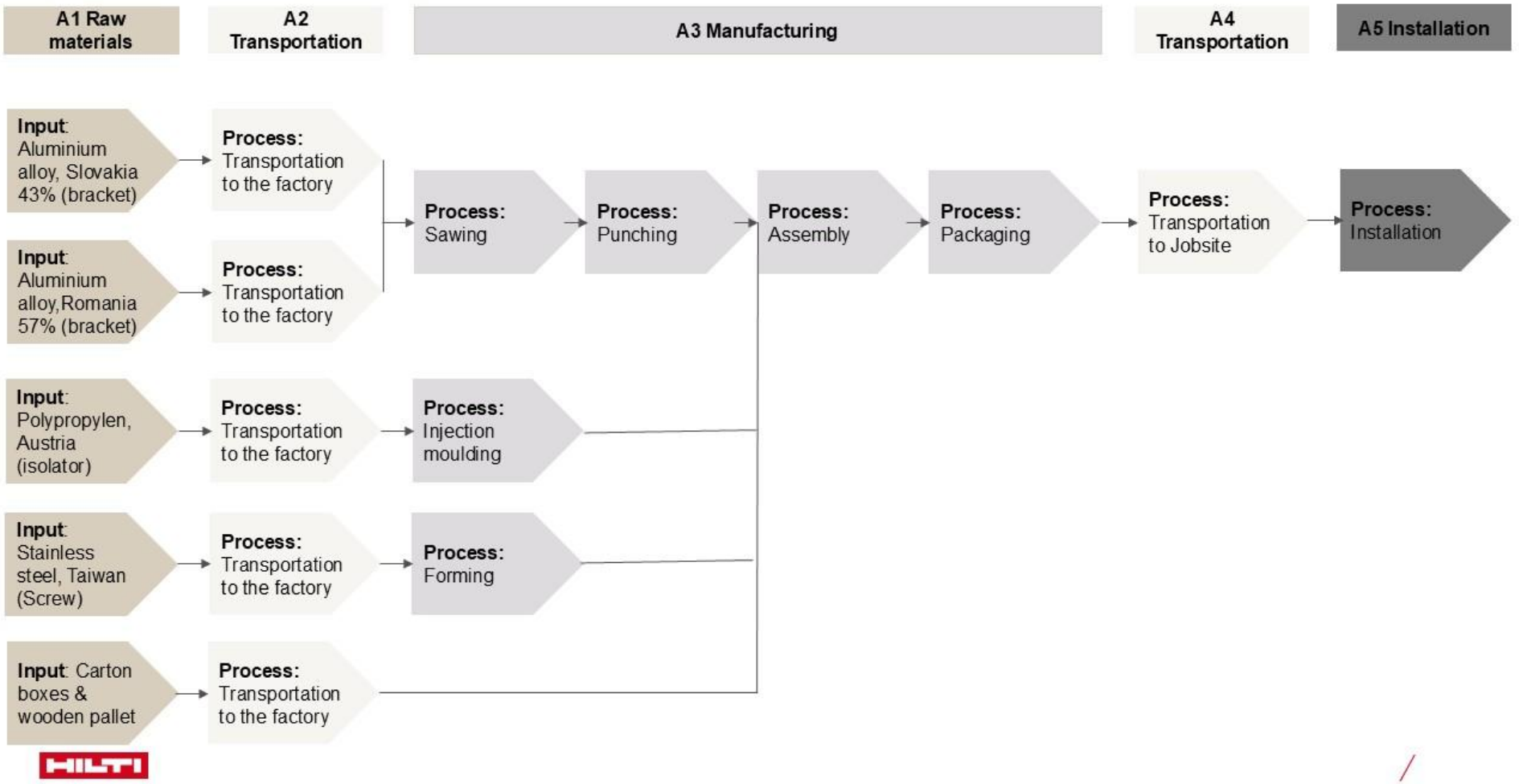
PRODUCT USE AND MAINTENANCE (B1-B7)

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

PRODUCT END OF LIFE (C1-C4, D)

At the end of its lifecycle, the product will be dismantled. The energy required for uninstallation is assumed to be equivalent to that used during installation. It is further assumed that 100% of the resulting waste will be collected and transported to a treatment facility, with an estimated transportation distance of 50 km. Regarding the disposal of materials, 85% of the metal parts of the product will be recycled, while the remaining 15% will be sent to landfill. For PP isolator, 50% will be incinerated, 27% is landfilled and 23% is recycled.

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. 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, 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	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	11%

This document relates to the MFT-FOX HI 300 M 11 as a representative product for the MFT-FOX H(I) as the heaviest product in the portfolio. The MFT-FOX H(I) products cover the same applications and are similar in material constitution and have therefore been summarized in this EPD. The whole portfolio range is available in the Appendix.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD System Verification 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	1,01E+01	2,81E-01	1,31E-02	1,04E+01	9,65E-02	5,35E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,61E-02	1,04E-01	8,89E-03	-4,44E+00
GWP – fossil	kg CO_2e	1,00E+01	2,81E-01	6,39E-02	1,03E+01	9,65E-02	1,26E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,61E-02	1,04E-01	8,90E-03	-4,34E+00
GWP – biogenic	kg CO_2e	4,57E-02	6,32E-05	-5,22E-02	-6,41E-03	2,15E-05	5,22E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,88E-06	-5,46E-05	-2,08E-05	-3,50E-04
GWP – LULUC	kg CO_2e	2,38E-02	1,26E-04	1,46E-03	2,54E-02	4,36E-05	6,94E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,60E-05	2,26E-05	9,70E-06	-1,06E-01
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	9,02E-08	4,14E-09	1,53E-09	9,59E-08	1,42E-09	1,28E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,05E-10	2,12E-10	1,31E-10	-7,61E-08
Acidification potential	mol H^+e	6,08E-02	1,09E-03	1,93E-04	6,20E-02	4,54E-04	5,11E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,20E-04	2,07E-04	4,11E-05	-2,79E-02
EP-freshwater[2)]	kg Pe	3,46E-03	2,16E-05	2,02E-05	3,50E-03	7,29E-06	2,82E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,80E-06	1,01E-05	1,09E-06	-2,34E-03
EP-marine	kg Ne	1,05E-02	3,46E-04	9,30E-05	1,09E-02	1,38E-04	8,33E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,90E-05	5,03E-05	2,15E-05	-3,77E-03
EP-terrestrial	mol Ne	1,08E-01	3,77E-03	6,59E-04	1,12E-01	1,51E-03	1,62E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,24E-04	5,49E-04	1,56E-04	-3,44E-02
POCP ("smog")[3)]	kg NMVOCe	3,47E-02	1,50E-03	2,12E-04	3,64E-02	5,67E-04	6,19E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,68E-04	1,59E-04	4,95E-05	-1,54E-02
ADP-minerals & metals[4)]	kg Sbe	1,05E-04	7,74E-07	2,40E-07	1,06E-04	2,60E-07	8,16E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,18E-07	1,07E-06	1,88E-08	-1,16E-05
ADP-fossil resources	MJ	1,14E+02	4,06E+00	9,75E-01	1,19E+02	1,39E+00	1,15E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,06E-01	2,28E-01	1,20E-01	-6,80E+01
Water use[5)]	m^3e depr.	2,79E+00	1,99E-02	2,07E-02	2,83E+00	6,74E-03	3,16E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,35E-03	5,86E-03	2,83E-03	-8,66E+00

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	1,27E-06	2,78E-08	1,88E-09	1,30E-06	9,32E-09	6,86E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,88E-09	2,80E-09	7,60E-10	-3,18E-07
Ionizing radiation[6)]	kBq U235e	7,74E-01	3,51E-03	3,82E-03	7,81E-01	1,19E-03	7,56E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,11E-04	8,69E-04	2,55E-04	-1,13E+00
Ecotoxicity (freshwater)	CTUe	4,98E+01	5,71E-01	3,36E-01	5,07E+01	1,93E-01	4,17E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,98E-02	1,47E-01	4,76E+01	-9,67E+00
Human toxicity, cancer	CTUh	6,59E-09	4,66E-11	1,42E-11	6,65E-09	1,62E-11	9,15E-13	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,13E-12	1,80E-11	5,20E-12	-7,78E-09
Human tox. non-cancer	CTUh	1,02E-07	2,61E-09	3,64E-10	1,05E-07	8,76E-10	4,89E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,17E-10	1,06E-09	1,11E-09	-5,61E-08
SQP[7)]	-	2,75E+01	4,03E+00	1,39E+00	3,30E+01	1,34E+00	8,53E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,08E-01	4,19E-01	1,89E-01	-4,17E+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	1,44E+01	5,53E-02	-1,75E-01	1,42E+01	1,87E-02	-5,56E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,94E-03	3,44E-02	3,70E-03	-2,76E+01
Renew. PER as material	MJ	0,00E+00	0,00E+00	4,46E-01	4,46E-01	0,00E+00	-4,46E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,20E-03
Total use of renew. PER	MJ	1,44E+01	5,53E-02	2,71E-01	1,47E+01	1,87E-02	-1,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,94E-03	3,44E-02	3,70E-03	-2,76E+01
Non-re. PER as energy	MJ	1,12E+02	4,06E+00	9,84E-01	1,17E+02	1,39E+00	1,15E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,06E-01	-1,61E+00	-5,45E-01	-6,82E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	1,46E-03	1,46E-03	0,00E+00	-1,46E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,60E-01
Total use of non-re. PER	MJ	1,12E+02	4,06E+00	9,85E-01	1,17E+02	1,39E+00	1,01E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,06E-01	-1,61E+00	-5,45E-01	-6,77E+01
Secondary materials	kg	3,14E-01	1,73E-03	3,57E-02	3,52E-01	5,94E-04	1,90E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,27E-04	3,07E-04	4,78E-05	7,41E-01
Renew. secondary fuels	MJ	1,94E-03	2,17E-05	3,23E-03	5,19E-03	7,25E-06	1,07E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,89E-06	1,17E-05	6,70E-07	-1,67E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	8,04E-02	5,96E-04	4,98E-04	8,15E-02	2,01E-04	-6,69E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,73E-05	1,14E-04	-1,09E-03	-1,89E-01

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	1,84E+00	6,86E-03	2,32E-03	1,85E+00	2,33E-03	1,95E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,82E-04	2,49E-03	8,84E-04	-1,04E+00
Non-hazardous waste	kg	2,53E+01	1,27E-01	5,96E-02	2,55E+01	4,28E-02	2,23E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,65E-02	8,50E-02	1,56E+00	-1,11E+01
Radioactive waste	kg	1,97E-04	8,60E-07	9,76E-07	1,99E-04	2,90E-07	1,93E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,01E-07	2,15E-07	6,25E-08	-3,01E-04

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	ND	ND	ND	ND	ND	ND	ND	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	2,90E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,78E-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	ND	ND	ND	ND	ND	ND	ND	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	1,37E-02	ND	ND	ND	ND	ND	ND	ND	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	5,60E-03	ND	ND	ND	ND	ND	ND	ND	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	8,10E-03	ND	ND	ND	ND	ND	ND	ND	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	9,98E+00	2,79E-01	6,57E-02	1,03E+01	9,60E-02	4,84E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,59E-02	1,04E-01	8,78E-03	-4,43E+00
Ozone depletion Pot.	kg $CFC_{-11}e$	7,83E-08	3,31E-09	1,24E-09	8,29E-08	1,13E-09	1,05E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,03E-10	1,76E-10	1,05E-10	-6,28E-08
Acidification	kg SO_2e	5,09E-02	8,37E-04	1,40E-04	5,19E-02	3,52E-04	3,90E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,21E-05	1,65E-04	3,04E-05	-2,40E-02
Eutrophication	kg PO_4^3e	6,09E-03	1,88E-04	7,09E-05	6,35E-03	7,06E-05	5,92E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,24E-05	2,53E-05	2,06E-05	-2,01E-03
POCP (“smog”)	kg C_2H_4e	3,81E-03	6,99E-05	1,33E-05	3,89E-03	2,69E-05	1,16E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,25E-06	9,94E-06	2,60E-06	-2,82E-03
ADP-elements	kg Sbe	1,03E-04	7,55E-07	2,39E-07	1,04E-04	2,54E-07	8,00E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,15E-07	1,07E-06	1,82E-08	-1,02E-05
ADP-fossil	MJ	1,01E+02	4,01E+00	9,06E-01	1,06E+02	1,37E+00	1,02E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,00E-01	2,14E-01	1,16E-01	-4,86E+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	1,00E+01	2,81E-01	6,53E-02	1,04E+01	9,65E-02	1,26E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,61E-02	1,04E-01	8,91E-03	-4,44E+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.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Electricity, medium voltage, European attribute mix, Europe, Ecoinvent, 0.000092 kgCO2e/kWh
2. Heat production, natural gas, at industrial furnace >100kW, World, Ecoinvent, 0.0753 kgCO2e/MJ
3. Diesel, burned in building machine, World, Ecoinvent, 0.10 kgCO2e/MJ

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO5, 823.06 km
2. Market for transport, freight, sea, container ship, 454.56 km

Installation scenario documentation - A5 (Installation waste)

1. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.029 kg
2. Treatment of waste packaging paper, municipal incineration, Ecoinvent, 0.0028 kg
3. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 0.0032 kg
4. Exported Energy: Electricity, Ecoinvent, 0.0056 MJ
5. Exported Energy: Thermal, Ecoinvent, 0.0081 MJ

Use stages scenario documentation - C1-C4 (Data source)

1. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.64 kg
2. Treatment of waste aluminium, sanitary landfill, Ecoinvent, 0.27 kg
3. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.024 kg
4. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.0013 kg
5. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.014 kg
6. Treatment of waste polypropylene, municipal incineration, Ecoinvent, 0.032 kg
7. Exported Energy: Electricity, Ecoinvent, 0.16 MJ
8. Exported Energy: Thermal, Ecoinvent, 0.23 MJ
9. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 0.017 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Transported 50 km by truck to local recycling station

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 15804+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

Sarah Curpen, as an authorized verifier acting for EPD HUB Limited
21.01.2026

APPENDIX

PRODUCT PORTFOLIO INCLUDED IN SCOPE

The following list of products are included in the scope of this declaration, as represented by Bracket MFT-FOX HI 300 M 11 (item number 2084357).

Item number	Product name	Product weight [kg]
2084229	MFT-FOX HI 60 M 5	0.11324
2084320	MFT-FOX HI 60 M 6,5	0.10924
2170852	MFT-FOX HI 60 M 9	0.11224
2084321	MFT-FOX HI 60 M 11	0.11224
2084322	MFT-FOX HI 80 M 5	0.12372
2084323	MFT-FOX HI 80 M 6,5	0.11972
2170853	MFT-FOX HI 80 M 9	0.11972
2084324	MFT-FOX HI 80 M 11	0.12272
2084325	MFT-FOX HI 100 M 5	0.13492
2084326	MFT-FOX HI 100 M 6,5	0.13092
2170854	MFT-FOX HI 100 M 9	0.13392
2084327	MFT-FOX HI 100 M 11	0.13392
2084328	MFT-FOX HI 120 M 5	0.14588
2084329	MFT-FOX HI 120 M 6,5	0.14188
2170855	MFT-FOX HI 120 M 9	0.14488
2084330	MFT-FOX HI 120 M 11	0.14488
2084331	MFT-FOX HI 140 M 5	0.18444
2084332	MFT-FOX HI 140 M 6,5	0.18044
2170856	MFT-FOX HI 140 M 9	0.18344
2084333	MFT-FOX HI 140 M 11	0.1848
2084334	MFT-FOX HI 160 M 5	0.20052
2084335	MFT-FOX HI 160 M 6,5	0.19652
2170857	MFT-FOX HI 160 M 9	0.19952
2084336	MFT-FOX HI 160 M 11	0.19952
2084337	MFT-FOX HI 180 M 5	0.21628
2084338	MFT-FOX HI 180 M 6,5	0.21228
2170858	MFT-FOX HI 180 M 9	0.21528
2084339	MFT-FOX HI 180 M 11	0.22146
2084340	MFT-FOX HI 200 M 5	0.23244
2084341	MFT-FOX HI 200 M 6,5	0.22844
2170859	MFT-FOX HI 200 M 9	0.23144
2084342	MFT-FOX HI 200 M 11	0.23144
2084343	MFT-FOX HI 220 M 5	0.26916
2084344	MFT-FOX HI 220 M 6,5	0.26516
2170860	MFT-FOX HI 220 M 9	0.26816
2084345	MFT-FOX HI 220 M 11	0.26816
2084346	MFT-FOX HI 240 M 5	0.28844
2084347	MFT-FOX HI 240 M 6,5	0.28444
2170861	MFT-FOX HI 240 M 9	0.28744
2084348	MFT-FOX HI 240 M 11	0.2908
2084349	MFT-FOX HI 260 M 5	0.30596
2084350	MFT-FOX HI 260 M 6,5	0.30196
2170862	MFT-FOX HI 260 M 9	0.30496
2084351	MFT-FOX HI 260 M 11	0.30496
2084352	MFT-FOX HI 280 M 5	0.32004
2084353	MFT-FOX HI 280 M 6,5	0.32004
2170863	MFT-FOX HI 280 M 9	0.32304
2084354	MFT-FOX HI 280 M 11	0.32304
2084355	MFT-FOX HI 300 M 5	0.34204
2084356	MFT-FOX HI 300 M 6,5	0.33804
2170864	MFT-FOX HI 300 M 9	0.35084
2084357	MFT-FOX HI 300 M 11	0.35084
2084096	MFT-FOX H 55 M 5	0.08924
2084097	MFT-FOX H 55 M 6,5	0.08924
2084098	MFT-FOX H 55 M 11	0.09224
2084099	MFT-FOX H 75 M 5	0.09972

Item number	Product name	Product weight [kg]
2084360	MFT-FOX H 75 M 6,5	0.09972
2084361	MFT-FOX H 75 M 11	0.10272
2084362	MFT-FOX H 95 M 5	0.11092
2084363	MFT-FOX H 95 M 6,5	0.11092
2084364	MFT-FOX H 95 M 11	0.11392
2084365	MFT-FOX H 115 M 5	0.12188
2084366	MFT-FOX H 115 M 6,5	0.12188
2084367	MFT-FOX H 115 M 11	0.12488
2084368	MFT-FOX H 135 M 5	0.16044
2084369	MFT-FOX H 135 M 6,5	0.16044
2084370	MFT-FOX H 135 M 11	0.16032
2084371	MFT-FOX H 155 M 5	0.17652
2084372	MFT-FOX H 155 M 6,5	0.17652
2084373	MFT-FOX H 155 M 11	0.18044
2084374	MFT-FOX H 175 M 5	0.19228
2084375	MFT-FOX H 175 M 6,5	0.19228
2084376	MFT-FOX H 175 M 11	0.1945
2084377	MFT-FOX H 195 M 5	0.20844
2084378	MFT-FOX H 195 M 6,5	0.20844
2084379	MFT-FOX H 195 M 11	0.20622
2084380	MFT-FOX H 215 M 5	0.24516
2084381	MFT-FOX H 215 M 6,5	0.24516
2084382	MFT-FOX H 215 M 11	0.24816
2084383	MFT-FOX H 235 M 5	0.26444
2084384	MFT-FOX H 235 M 6,5	0.26444
2084385	MFT-FOX H 235 M 11	0.26744
2084386	MFT-FOX H 255 M 5	0.28196
2084387	MFT-FOX H 255 M 6,5	0.28196
2084388	MFT-FOX H 255 M 11	0.28496
2084389	MFT-FOX H 275 M 5	0.30004
2084390	MFT-FOX H 275 M 6,5	0.30004
2084391	MFT-FOX H 275 M 11	0.31276
2084392	MFT-FOX H 295 M 5	0.31804
2084393	MFT-FOX H 295 M 6,5	0.31804
2084394	MFT-FOX H 295 M 11	0.32104
2476078	MFT-DH 80 M	0.08588