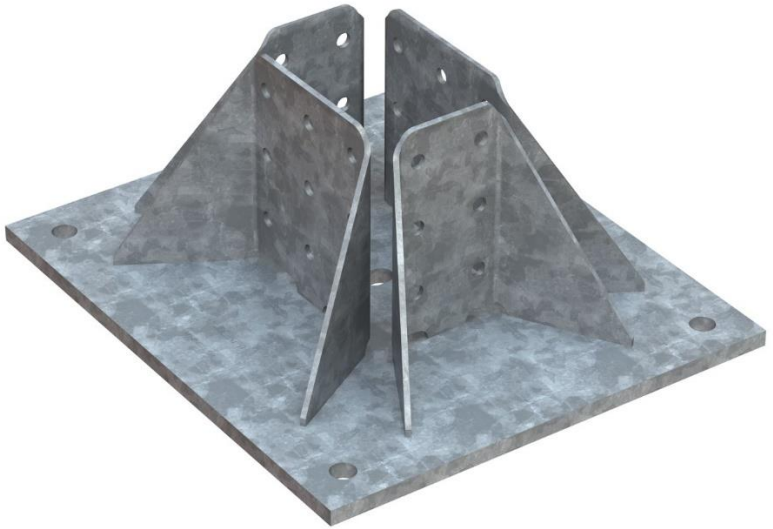
ENVIRONMENTAL PRODUCT DECLARATION

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

Galvanized steel connection component for MT System
Hilti AG



EPD HUB, HUB-1062
Published on 01.02.2024, last updated on 27.02.2024, valid until 01.02.2029.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Hilti AG
Address	Feldkircherstrasse 100
Contact details	Sustainability@Hilti.com
Website	www.hilti.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Nahyun Lee
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
EPD verifier	Elma Avdyli, as an authorized verifier acting for EPD Hub Limited

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	Galvanized steel connection component for MT System
Additional labels	
Product reference	2272104
Place of production	Cangzhou, Hebei province, P.R.China / Changzhou, Jiangsu province, P.R.China
Period for data	2022
Averaging in EPD	Multiple products and multiple factories
Variation in GWP-fossil for A1-A3	8.5 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of galvanized steel connection component for Support systems
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	3,01E+00
GWP-total, A1-A3 (kgCO2e)	3,01E+00
Secondary material, inputs (%)	31.1
Secondary material, outputs (%)	80.9
Total energy use, A1-A3 (kWh)	9.58
Total water use, A1-A3 (m3e)	2,62E-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. 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

The declared product is a hot-dip galvanized heavy-duty baseplate, representing galvanized steel connection components for the Hilti MT system. The components are part of the Hilti MT system – a versatile, seamless load range solution for virtually all modular MEP support structures and secondary steel applications. The plate can be used for fastening MT-100 boxed profiles to concrete floors, walls or ceilings, anchoring metal framing and MEP support structures with heavy loads to a base material and is suitable for use in moderately corrosive environments. The baseplate is manufactured by HILTI AG. The plate is made from Q355 or better steel and hot-dip galvanized according to ASTM A153 standard. Detailed technical information can be found from each country page after choosing location on https://www.hilti.group/content/hilti/CP/XX/en/Locations.html.

Further information can be found at www.hilti.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	100	
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	0.000001

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of galvanized steel connection component for Support systems
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	Deconstr./demol.	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 galvanized steel connection component is made from galvanized low-carbon steel. The referenced product is 4-hole Baseplate MT-B-GXL O4 OC, which is a connecting component for fastening to concrete. The recycled content of the steel ranges from 10% to 40% depending on sourcing circumstances, and in the calculation scenario the conservative value of 10% is assumed. The coils are cut and shaped to form the product in its final size and shape. The steel connector is sent to a sub-contractor for hot-dip galvanizing (HDG) and is then transported back to the factory for packaging and distribution. The manufacturing process requires electricity and fuels for powering the production equipment. Wastewater treatment is also considered. A wooden pallet, cardboard, and cable ties are used as packaging materials for transporting the baseplate 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 1st leg of transportation is calculated based on the distance of sea travel from the supplier location to the cargo ports in each key market regions. The 2nd leg of transportation is calculated based on the distance traveled by lorry from the ports to the warehouses in respective markets. Hilti operates multiple warehouses in each key regions and countries, and the regions used for the scenario are grouped as 6 regions, i.e. Europe, Middle East, North America, South America, North Asia, and South Asia. Average distances of the 1st and 2nd leg travels were assumed within each region, then these were weighted by the net sales distribution across regions in 2022.
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. Individual calculations on A4 transportation for specific project locations is available upon request.

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. Bolts 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.

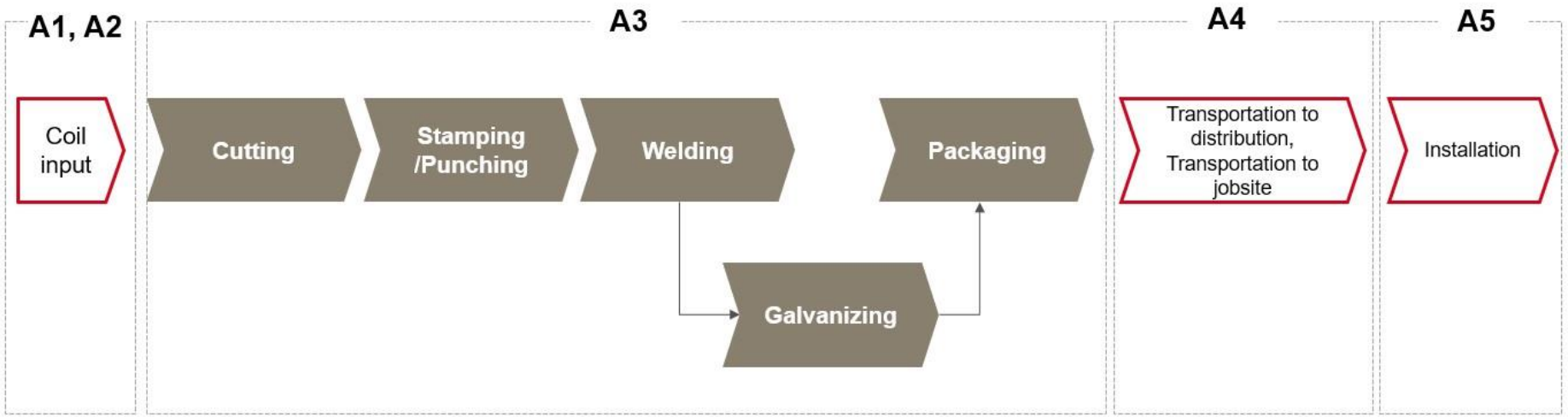
PRODUCT USE AND MAINTENANCE (B1-B7)

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 energy use is estimated to be the same as in installation. 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 50 km, the transportation method is assumed to be lorry (C2). 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 data published by World Steel Association. 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 materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	Multiple products and multiple factories
Averaging method	Representative product
Variation in GWP-fossil for A1-A3	8.5 %

The averaging of products and manufacturing sites is calculated based on the heaviest product in the series. The declared unit 1 kg of hot-dip galvanized baseplate is representative for a product consisting of a baseplate with total weight of 17.24kg. The thickness of the galvanization coating is on average 56 microns per side, the coating being double-sided.

Certain variability (not more than 8.5%) is possible for products in the series depending on their size and thickness.

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. Ecoinvent v3.8 and One Click LCA databases were used 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[1)]	kg CO_2e	2,86E+00	4,67E-02	1,03E-01	3,01E+00	3,23E-01	1,90E-01	MND	MND	MND	MND	MND	MND	MND	1,22E-03	9,14E-03	2,31E-02	8,32E-04	-2,38E-01
GWP – fossil	kg CO_2e	2,86E+00	4,67E-02	1,04E-01	3,01E+00	3,23E-01	1,89E-01	MND	MND	MND	MND	MND	MND	MND	1,22E-03	9,14E-03	2,31E-02	8,31E-04	-2,38E-01
GWP – biogenic	kg CO_2e	4,75E-04	0,00E+00	-9,16E-04	-4,40E-04	0,00E+00	4,40E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,88E-04
GWP – LULUC	kg CO_2e	2,42E-03	1,90E-05	2,01E-05	2,46E-03	1,74E-04	1,92E-04	MND	MND	MND	MND	MND	MND	MND	2,56E-06	3,72E-06	3,01E-05	7,85E-07	1,31E-04
Ozone depletion pot.	kg CFC_{-11}e	1,45E-07	1,03E-08	2,35E-09	1,58E-07	6,83E-08	9,90E-09	MND	MND	MND	MND	MND	MND	MND	4,11E-11	2,01E-09	2,48E-09	3,36E-10	-6,57E-09
Acidification potential	mol H^+e	2,92E-02	1,93E-04	5,55E-04	3,00E-02	5,05E-03	8,68E-04	MND	MND	MND	MND	MND	MND	MND	6,20E-06	3,78E-05	2,64E-04	7,81E-06	-9,47E-04
EP-freshwater[2)]	kg Pe	1,27E-04	3,94E-07	2,22E-06	1,30E-04	2,09E-06	8,87E-06	MND	MND	MND	MND	MND	MND	MND	6,40E-08	7,71E-08	1,00E-06	8,71E-09	-8,05E-07
EP-marine	kg Ne	3,12E-03	5,64E-05	1,17E-04	3,29E-03	1,28E-03	1,82E-04	MND	MND	MND	MND	MND	MND	MND	1,05E-06	1,10E-05	5,61E-05	2,71E-06	-2,81E-05
EP-terrestrial	mol Ne	1,03E-01	6,22E-04	1,29E-03	1,04E-01	1,42E-02	1,93E-03	MND	MND	MND	MND	MND	MND	MND	1,17E-05	1,22E-04	6,46E-04	2,98E-05	-2,46E-03
POCP ("smog")[3)]	kg NMVOCe	1,26E-02	1,89E-04	3,45E-04	1,31E-02	3,79E-03	7,28E-04	MND	MND	MND	MND	MND	MND	MND	3,15E-06	3,71E-05	1,77E-04	8,65E-06	-1,34E-03
ADP-minerals & metals[4)]	kg Sbe	8,73E-05	1,62E-07	6,79E-07	8,82E-05	8,49E-07	2,08E-06	MND	MND	MND	MND	MND	MND	MND	5,71E-09	3,18E-08	2,64E-06	1,91E-09	-6,95E-06
ADP-fossil resources	MJ	3,00E+01	6,75E-01	9,58E-01	3,16E+01	4,42E+00	2,09E+00	MND	MND	MND	MND	MND	MND	MND	1,59E-02	1,32E-01	2,76E-01	2,28E-02	-1,86E+00
Water use[5)]	m^3e depr.	1,31E+00	2,96E-03	1,14E-02	1,33E+00	1,70E-02	5,80E-02	MND	MND	MND	MND	MND	MND	MND	3,34E-04	5,79E-04	4,70E-03	7,23E-05	8,32E-02

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	3,83E-07	3,98E-09	7,94E-09	3,95E-07	2,04E-08	1,53E-08	MND	MND	MND	MND	MND	MND	MND	4,70E-11	7,78E-10	3,60E-09	1,57E-10	-1,21E-08
Ionizing radiation[6)]	kBq U235e	1,27E-01	3,14E-03	2,03E-03	1,32E-01	2,05E-02	1,40E-02	MND	MND	MND	MND	MND	MND	MND	1,78E-04	6,14E-04	1,66E-03	1,03E-04	7,92E-03
Ecotoxicity (freshwater)	CTUe	1,14E+02	6,22E-01	2,82E+00	1,17E+02	3,60E+00	1,05E+01	MND	MND	MND	MND	MND	MND	MND	2,41E-02	1,22E-01	1,30E+00	1,49E-02	-6,08E+00
Human toxicity, cancer	CTUh	1,79E-08	1,75E-11	3,15E-11	1,79E-08	1,50E-10	7,81E-10	MND	MND	MND	MND	MND	MND	MND	3,68E-13	3,42E-12	3,87E-11	3,72E-13	2,23E-09
Human tox. non-cancer	CTUh	8,85E-08	5,79E-10	1,36E-09	9,04E-08	3,05E-09	3,85E-09	MND	MND	MND	MND	MND	MND	MND	1,36E-11	1,13E-10	1,67E-09	9,72E-12	1,36E-08
SQP[7)]	-	9,60E+00	4,69E-01	3,40E-01	1,04E+01	2,15E+00	9,33E-01	MND	MND	MND	MND	MND	MND	MND	2,57E-03	9,15E-02	5,50E-01	4,87E-02	-8,99E-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[8)]	MJ	2,78E+00	7,92E-03	8,60E-02	2,88E+00	4,39E-02	2,28E-01	MND	MND	MND	MND	MND	MND	MND	2,06E-03	1,55E-03	4,25E-02	1,98E-04	-2,62E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	3,86E-03	3,86E-03	0,00E+00	-3,86E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,40E-03
Total use of renew. PER	MJ	2,78E+00	7,92E-03	8,98E-02	2,88E+00	4,39E-02	2,24E-01	MND	MND	MND	MND	MND	MND	MND	2,06E-03	1,55E-03	4,25E-02	1,98E-04	-2,59E-01
Non-re. PER as energy	MJ	3,00E+01	6,75E-01	9,44E-01	3,16E+01	4,42E+00	2,09E+00	MND	MND	MND	MND	MND	MND	MND	1,59E-02	1,32E-01	2,76E-01	2,28E-02	-1,86E+00
Non-re. PER as material	MJ	0,00E+00	0,00E+00	1,01E-04	1,01E-04	0,00E+00	-1,01E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,66E-05
Total use of non-re. PER	MJ	3,00E+01	6,75E-01	9,44E-01	3,16E+01	4,42E+00	2,09E+00	MND	MND	MND	MND	MND	MND	MND	1,59E-02	1,32E-01	2,76E-01	2,28E-02	-1,86E+00
Secondary materials	kg	3,11E-01	2,22E-04	4,23E-04	3,11E-01	1,67E-03	1,08E-02	MND	MND	MND	MND	MND	MND	MND	1,46E-06	4,35E-05	2,96E-04	4,79E-06	1,54E-01
Renew. secondary fuels	MJ	3,07E-04	2,88E-06	3,45E-05	3,44E-04	1,39E-05	6,17E-05	MND	MND	MND	MND	MND	MND	MND	1,02E-08	5,64E-07	1,51E-05	1,25E-07	-3,33E-05
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	2,58E-02	7,98E-05	2,74E-04	2,62E-02	4,33E-04	1,29E-03	MND	MND	MND	MND	MND	MND	MND	9,34E-06	1,56E-05	1,34E-04	2,49E-05	-6,28E-03

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	1,08E+00	9,72E-04	1,26E-02	1,09E+00	6,25E-03	5,59E-02	MND	MND	MND	MND	MND	MND	MND	1,03E-04	1,90E-04	2,12E-03	0,00E+00	-1,38E-01
Non-hazardous waste	kg	4,92E+00	1,55E-02	8,96E-02	5,02E+00	8,22E-02	3,39E-01	MND	MND	MND	MND	MND	MND	MND	2,75E-03	3,04E-03	5,38E-02	1,58E-01	-3,92E-01
Radioactive waste	kg	5,83E-05	4,46E-06	1,24E-06	6,40E-05	3,00E-05	5,68E-06	MND	MND	MND	MND	MND	MND	MND	4,90E-08	8,74E-07	1,22E-06	0,00E+00	1,48E-06

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	1,28E-01	1,28E-01	0,00E+00	2,66E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	8,94E-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	3,91E-04	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_2e	2,74E+00	4,62E-02	9,98E-02	2,89E+00	3,20E-01	1,88E-01	MND	MND	MND	MND	MND	MND	MND	1,19E-03	9,04E-03	2,27E-02	8,14E-04	-2,20E-01
Ozone depletion Pot.	kg CFC_{-11}e	1,42E-07	8,15E-09	1,93E-09	1,52E-07	5,41E-08	9,31E-09	MND	MND	MND	MND	MND	MND	MND	3,44E-11	1,60E-09	2,00E-09	2,66E-10	-9,34E-09
Acidification	kg SO_2e	1,91E-02	1,51E-04	4,54E-04	1,97E-02	4,02E-03	7,07E-04	MND	MND	MND	MND	MND	MND	MND	5,17E-06	2,95E-05	2,13E-04	5,91E-06	-7,58E-04
Eutrophication	kg PO_4^3e	7,27E-03	3,45E-05	1,05E-04	7,41E-03	5,21E-04	3,94E-04	MND	MND	MND	MND	MND	MND	MND	2,25E-06	6,76E-06	6,64E-05	1,27E-06	-3,40E-04
POCP (“smog”)	kg C_2H_4e	1,23E-03	6,11E-06	1,70E-05	1,25E-03	1,13E-04	7,15E-05	MND	MND	MND	MND	MND	MND	MND	2,07E-07	1,20E-06	8,12E-06	2,48E-07	-1,74E-04
ADP-elements	kg Sbe	8,70E-05	1,58E-07	6,78E-07	8,78E-05	8,30E-07	2,06E-06	MND	MND	MND	MND	MND	MND	MND	5,70E-09	3,10E-08	2,64E-06	1,88E-09	-6,94E-06
ADP-fossil	MJ	3,00E+01	6,75E-01	9,58E-01	3,16E+01	4,42E+00	2,09E+00	MND	MND	MND	MND	MND	MND	MND	1,59E-02	1,32E-01	2,76E-01	2,28E-02	-1,86E+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.

Elma Avdyli, as an authorized verifier acting for EPD Hub Limited
01.02.2024

VERIFIED ISO 14025

APPENDIX

PRODUCT PORTFOLIO INCLUDED IN SCOPE

The following list of products are included in the scope of this declaration, as represented by 4-hole Baseplate MT-B-GXL O4 OC (item number 2272104).

Item number	Item designation
2272086	1-hole Baseplate MT-B-L
2272088	1-hole Baseplate MT-B-L OC
2272094	2-hole Baseplate MT-B-O2
2272096	2-hole Baseplate MT-B-O2 OC
2282212	2-hole Baseplate MT-B-O2B
2282213	2-hole Baseplate MT-B-O2B OC
2272090	2-hole Baseplate MT-B-T
2272092	2-hole Baseplate MT-B-T OC
2272103	4-hole Baseplate MT-B-GL O4 OC
2272101	4-hole Baseplate MT-B-GS O4U OC
2272104	4-hole Baseplate MT-B-GXL O4 OC
2272098	4-hole Baseplate MT-B-O4
2272099	4-hole Baseplate MT-B-O4 OC
2368806	Adapter plate MT-FPS-AP OC
2272111	Angle brace MT-AB A adjustable
2272112	Angle brace MT-AB A OC adjustable
2346396	Angle brace MT-AB A OC set adjustable
2346395	Angle brace MT-AB A set adjustable
2272116	Angle brace MT-AB-G T OC adjustable
2272113	Angle brace MT-AB-L 45
2272114	Angle brace MT-AB-L 45 OC
2272115	Angle brace MT-AB-LL2 45
2273585	Angle brace MT-AB-LL2 45 OC
2322420	Angle brace MT-AB-LS
2322423	Angle brace MT-AB-LS OC
2272069	Angle connector MT-C-GL A OC adjustable
2272066	Angle connector MT-C-GL OC
2272068	Angle connector MT-C-GS A OC adjustable
2272064	Angle connector MT-C-GS OC
2271514	Angle connector MT-C-L1
2271516	Angle connector MT-C-L1 OC
2271518	Angle connector MT-C-L2
2271519	Angle connector MT-C-L2 OC
2272047	Angle connector MT-C-LL1
2272049	Angle connector MT-C-LL1 OC
2272051	Angle connector MT-C-LL2
2272053	Angle connector MT-C-LL2 OC
2282203	Angle connector MT-S-L 40-50 OC seismic
2273649	Angle connector MT-S-L 40-50 seismic
2282205	Angle connector MT-S-L 40D OC seismic
2273651	Angle connector MT-S-L 40D seismic
2282204	Angle connector MT-S-L 60 OC seismic
2273650	Angle connector MT-S-L 60 seismic
2273688	Angle MT-FA-C M10 fixation
2273689	Angle MT-FA-C M10 OC fixation
2273690	Angle MT-FA-C M12 fixation
2273691	Angle MT-FA-C M12 OC fixation
2273692	Angle MT-FA-C M16 fixation
2273652	Angle MT-FA-C M16 OC fixation
2273686	Angle MT-FA-C M8 fixation
2273687	Angle MT-FA-C M8 OC fixation
2273681	Angle MT-FA-G M10 3/8 OC fixation
2273682	Angle MT-FA-G M12 1/2 OC fixation
2273683	Angle MT-FA-G M16 5/8 OC fixation
2273684	Angle MT-FA-G M22 7/8 OC fixation
2273685	Angle MT-FA-G M24 1 OC fixation
2348158	Angle MT-S-L
2348159	Angle MT-S-L OC
2353811	Baseplate MT-B GL AB OC
2332781	Baseplate MT-B-G AS OC
2343282	Baseplate MT-B-GL O4C OC
2332787	Baseplate MT-B-GS AB OC
2272100	Baseplate MT-B-GS T OC
2272106	Baseplate MT-B-GXL S1 OC
2272107	Baseplate MT-B-GXL S2 OC
2272108	Baseplate MT-B-GXL S3 OC
2273587	Beam clamp MT-BC-GS T OC
2273589	Beam clamp MT-BC-GXL T OC
2271288	Bracket MT-BR-30 300
2271289	Bracket MT-BR-30 300 OC
2271440	Bracket MT-BR-30 450
2271441	Bracket MT-BR-30 450 OC
2271446	Bracket MT-BR-40 1000
2271447	Bracket MT-BR-40 1000 OC
2271442	Bracket MT-BR-40 300
2271443	Bracket MT-BR-40 300 OC
2271444	Bracket MT-BR-40 450
2271445	Bracket MT-BR-40 450 OC
2271451	Bracket MT-BR-40 600
2271452	Bracket MT-BR-40 600 OC

Item number	Item designation
2271456	Bracket MT-BR-40 O4 1000 OC
2271455	Bracket MT-BR-40 O4 600 OC
2271450	Bracket MT-BR-40D 1000
2271453	Bracket MT-BR-40D 1000 OC
2271448	Bracket MT-BR-40D 600
2271449	Bracket MT-BR-40D 600 OC
2271461	Bracket MT-BR-40D O4 1000 OC
2271287	Bracket MT-BR-40D O4 1500 OC
2271459	Bracket MT-BR-40D O4 600 OC
2194498	Channel connector MT-X 50 L HDG
2194501	Channel connector MT-X 75 L HDG
2322405	Channel tie MT-CT-H2
2322409	Channel tie MT-CT-H2 OC
2322408	Channel tie MT-CT-H4
2322412	Channel tie MT-CT-H4 OC
2322406	Channel tie MT-CT-H5
2322410	Channel tie MT-CT-H5 OC
2322407	Channel tie MT-CT-T
2322411	Channel tie MT-CT-T OC
2322427	Clamp MT-CC-30
2322428	Clamp MT-CC-30D
2322429	Clamp MT-CC-40/50
2322391	Clamp MT-CC-40/50 OC
2322392	Clamp MT-CC-40/50X2
2322393	Clamp MT-CC-40/50X2 OC
2322398	Clamp MT-CC-40D
2322399	Clamp MT-CC-40D OC
2322396	Clamp MT-CC-60
2322431	Clamp MT-CC-60 OC
2322404	Clamp MT-CC-70 OC
2322432	Clamp MT-CC-BC 40/50
2322401	Clamp MT-CC-BC 40/50 OC
2322402	Clamp MT-CC-BS 40/50
2322403	Clamp MT-CC-BS 40/50 OC
2353810	Connector MT-B-EDB A OC
2353803	Connector MT-B-GL EDB A OC
2353802	Connector MT-B-GL EDB OC set
2353805	Connector MT-B-GS EDB A OC
2353804	Connector MT-B-GS EDB OC set
2353806	Connector MT-BRL-EDB M12
2353807	Connector MT-BRL-EDB M16
2353808	Connector MT-BRS-EDB M12
2353809	Connector MT-BRS-EDB M16
2353779	Connector MT-CC-40/50 C OC
2353800	Connector MT-CC-40/50 M OC

Item number	Item designation
2332784	Connector MT-C-GLP T A OC
2272075	Connector MT-C-GLP T OC plate
2332783	Connector MT-C-GLP X A OC
2332786	Connector MT-C-GSP L A OC
2272073	Connector MT-C-GSP L OC plate
2332785	Connector MT-C-GSP T A OC
2272074	Connector MT-C-GSP T OC plate
2322419	Connector MT-C-LS
2322422	Connector MT-C-LS OC
2343198	Connector MT-C-PS 1-1/4 OC
2343196	Connector MT-C-PS 5/8 OC
2343197	Connector MT-C-PS 7/8 OC
2272059	Connector MT-C-T 3D/2 OC transversal
2272058	Connector MT-C-T 3D/2 transversal
2272061	Connector MT-C-T 3D/3 OC transversal
2272060	Connector MT-C-T 3D/3 transversal
2272056	Connector MT-C-T A adj transv
2272057	Connector MT-C-T A OC adj transv
2272042	Connector MT-C-T/1 OC transversal
2272040	Connector MT-C-T/1 transversal
2272055	Connector MT-C-T/2 OC transversal
2272054	Connector MT-C-T/2 transversal
2332794	Connector MT-CTR-GL 1/2 OC
2332795	Connector MT-CTR-GL 5/8 OC
2332793	Connector MT-CTR-GL M12 OC
2332796	Connector MT-CTR-GL M16 OC
2332791	Connector MT-CTR-GS 1/2 OC
2332792	Connector MT-CTR-GS 5/8 OC
2332789	Connector MT-CTR-GS M12 OC
2332790	Connector MT-CTR-GS M16 OC
2354564	Connector MT-PCC-G M12 OC
2354155	Connector MT-PCC-G M16 OC
2353801	Connector MT-PCC-G M8/M10 OC
2282199	Hinge MT-S-H1 M10 OC seismic
2273645	Hinge MT-S-H1 M10 seismic
2282200	Hinge MT-S-H1 M12 OC seismic
2273646	Hinge MT-S-H1 M12 seismic
2282201	Hinge MT-S-H2 M10 OC seismic
2273647	Hinge MT-S-H2 M10 seismic
2282202	Hinge MT-S-H2 M12 OC seismic
2273648	Hinge MT-S-H2 M12 seismic
2332797	MT-CTAB
2332788	MT-CTAB OC
2322417	MT-FTR-GS M12
2322418	MT-FTR-GS M16

Item number	Item designation
2325248	MT-FTR-GSW
2322421	MT-FTR-LS
2322424	MT-FTR-LS OC
2272070	MT-U-GL1 OC
2283115	MT-ZW M10 OC
2283116	MT-ZW M12 OC
2283117	MT-ZW M16 OC
2283114	MT-ZW M8 OC
2273701	Pipe shoe MT-FPS-GL OC fixation
2273702	Pipe shoe MT-FPS-GS OC fixation
2273657	Plate MT-FP M10 fixation
2273658	Plate MT-FP M10 OC fixation
2273659	Plate MT-FP M12 fixation
2273670	Plate MT-FP M12 OC fixation
2273671	Plate MT-FP M16 fixation
2273672	Plate MT-FP M16 OC fixation
2273653	Plate MT-FP M6 fixation
2273654	Plate MT-FP M6 OC fixation
2273655	Plate MT-FP M8 fixation
2273656	Plate MT-FP M8 OC fixation
2282193	Plate MT-FPT M10
2282194	Plate MT-FPT M10 OC
2282195	Plate MT-FPT M12
2282196	Plate MT-FPT M12 OC
2281867	Plate MT-FPT M8
2282192	Plate MT-FPT M8 OC
2343199	Plate MT-P-G S1 OC
2343280	Plate MT-P-G S2 OC
2343281	Plate MT-P-G S3 OC
2345353	Plate MT-P-GM S1 OC set
2345354	Plate MT-P-GM S2 OC set
2345355	Plate MT-P-GM S3 OC set
2272110	Plate MT-P-GXL S1 OC
2333072	Rail adapter MT-C-GS 12 EDB
2333073	Rail adapter MT-C-GS 16 EDB
2273584	Rod stiffener MT-S-RS OC seismic
2282198	Rod stiffener MT-S-RS seismic
2083722	Seismic hinge MT-S-A-10
2083723	Seismic hinge MT-S-A-12
2083724	Seismic hinge MT-S-A-16
2083721	Seismic hinge MT-S-A-8
2272062	Splice connector MT-ES-40
2272063	Splice connector MT-ES-40 OC
2322415	Splice connector MT-ES-60
2322416	Splice connector MT-ES-60 OC
2272078	Splice connector MT-ES-70 OC
2272076	Splice connector MT-ES-90 OC
2272109	Starter bracket MT-B-G WS OC