ENVIRONMENTAL PRODUCT DECLARATION

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

Siniat Metal Profiles thickness 0,6mm
Etex Building Performance Limited

UDT52/P, UDT62/P, UDT72/P,
UDT92/P and UDT148/P

EPD HUB, HUB-2153
Published on 13 October 2024, last updated on 22 November 2024, valid until 13 October 2029.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Etex Building Performance Limited
Address	Marsh Lane, Easton-in-Gordano, Bristol BS20 0NE, United Kingdom
Contact details	marketing@etexbp.co.uk
Website	https://www.siniat.co.uk/

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 1.1, 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-B7, and modules C1-C4, D
EPD author	Salvador Duarte
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Magaly González Vázquez, 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	Siniat Metal Profiles thickness 0,6mm
Additional labels	-
Product reference	Siniat Metal Profiles thickness 0,6mm
Place of production	Bristol plant: Marsh Lane, Easton-in-Gordano, Bristol BS20 0NE, United Kingdom
Period for data	From 01/01/2023 to 31/12/2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	N/A %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of metal profile installed
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2,65
GWP-total, A1-A3 ($kgCO_2e$)	2,65
Secondary material, inputs (%)	53,9
Secondary material, outputs (%)	88,4
Total energy use, A1-A3 (kWh)	10,2
Net freshwater use, A1-A3 (m^3)	0,06

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Etex Building Performance Limited is part of the global Etex Group of Companies, which operates across Europe, Africa, Near & Middle East, and South America. Etex Building Performance Limited manufactures drywall products and systems for partitions, ceilings, wall linings and external sheathing purposes under the Siniat brand. Our products are used by small builders through to some of the most acclaimed architects and construction companies in the country.

PRODUCT DESCRIPTION

Siniat Metal Profiles are produced with galvanised steel by a cold rolling process. The profiles are used as framing for lightweight building systems such as walls, ceilings and linings. They can present different shapes. This EPD includes Siniat Metal Profiles with gauge thickness 0,6mm (P) with galvanisation Z140.
Products covered by this EPD:
U Track Deep Flange: UDT52/P, UDT62/P, UDT72/P, UDT92/P and UDT148/P.

Further information can be found at https://www.siniat.co.uk/.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	Turkey
Minerals	N/A	-
Fossil materials	N/A	-
Bio-based materials	N/A	-

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	0,00204

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of metal profile installed
Mass per declared unit	1 kg
Functional unit	1 kg of metal profile installed
Reference service life	60

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	x	x	x	x	x	x	x	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.

A1 - Raw materials supply
Siniat Metal Profiles are produced with hot-dip galvanised steel, galvanisation (Z140).

A2 transport to the manufacturing site
This module concerns the transport of raw materials to the manufacturing site. Galvanised steel coils are the main raw material and are transported by truck and ship.

A3 - Manufacturing
All Siniat metal profiles are produced by cold rolling process. Electricity is the main energy used and is 100% from renewable source (wind). Additionally for manufacturing, ancillary materials such as lubricating oil and water are used. Packaging is made with wooden slats and plastic straps. Regarding manufacturing waste: galvanised steel is considered at 2,87% and goes 100% to recycling, transported 3km by truck. Lubricating oil is treated as hazardous waste and goes 100% to incineration, transported 1km by truck and water is released as vapor.

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.

Module A4 - Transport to installation site
This module concerns the transport of packaged profiles to the installation site. It was considered transport by truck and 206km as the average distance from Bristol plant to customers (most representative consuming locations).

Module A5 - Installation
This module concerns metal profiles installation in the jobsite and jobsite waste management. For installation, it was considered that metal profiles are cut manually, and that one galvanised steel screw is used per kg of installed profile. Regarding installation waste it was considered that metal profiles installation loss (galvanised steel) is 5%, going 100% to recycling and transported 30km by truck. For packaging,

wooden slats waste is considered as 100% to recycling and transported 30km by truck. Plastic straps waste is considered as 100% to landfilling and transported 30km by truck.

PRODUCT USE AND MAINTENANCE (B1-B7)

Siniat Metal Profiles have a reference lifespan of 60 years, if installed according to the recommendations of Etex Building Performance Limited. Therefore, no need of maintenance, repair, replacement or remodelling during this period, considering normal non-accidental conditions of use. The product will also not require operational energy or water to fulfil its function, once installed in the building. The impacts on air, soil and water during the use phase have not been studied.

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

PRODUCT END OF LIFE (C1-C4, D)

Modules C1-C4, D - End of life

For end-of-life scenario (C1-C4), it was considered metal profiles deconstruction and waste managed as 90% for recycling and 10% to landfilling. The transport is considered as 30 km and 50 km from the plant in landfilling and recycling scenarios, respectively. No energy has been considered for C1, it has been assumed that demolition is carried out without power tools or is using negligible amounts of energy.

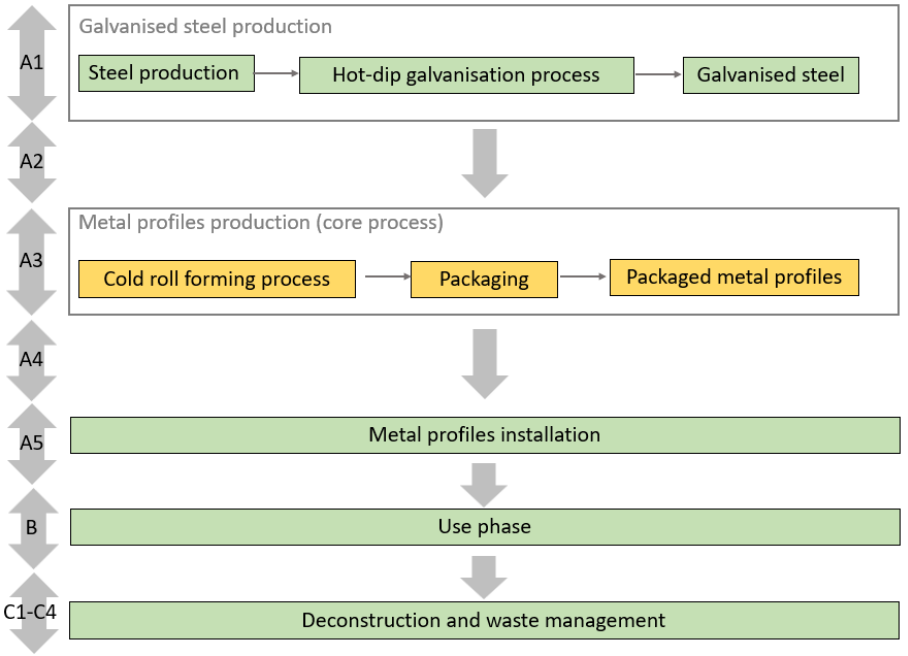
Benefits and loads beyond system boundary (D) come mainly from 100% of galvanised steel waste from manufacturing and 90% from installation to recycling. Also, from wooden slats waste 100% to recycling.

MANUFACTURING PROCESS

Siniat Metal Profiles are produced from galvanised steel coils. The steel itself is composed by a mix of virgin and recycled steel in different proportions depending on the steelmaker and steel reference. Additionally, steel coils are coated with a layer of zinc through a process called galvanization. This process involves immersing the steel in a bath of molten zinc, which creates a strong bond between the zinc and the steel. The zinc coating acts as a protective barrier, preventing rust and corrosion, and making the steel more durable.

Metal profiles are produced by a cold rolling process. The process starts with a steel coil, which is unrolled to feed the material into the rolling mill. The uncoiled steel strip is fed into a series of rollers. These rollers are designed to gradually shape the metal into the desired profile. As the steel strip passes through each set of rollers, it undergoes incremental bending and shaping. Each roller set performs a specific part of the shaping process, progressively forming the metal into its final profile. Additional operations such as punching or stamping can be integrated into the process to create holes or other features in the metal profile. Once the metal strip has been fully formed into the desired profile, it is cut to the required length.

See diagram:



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	Allocated by mass or volume
Packaging material	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	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	N/A

This EPD considers Siniat metal profiles with thickness 0,6mm and galvanisation Z140.
The results correspond to 1kg of installed metal profile.
Find at ‘ANNEX 1: SCALING TABLE FOR THE GWP RESULTS OF SINIAT METAL PROFILES 0,6mm’ the linear mass (kg/m) and the environmental impact (stage A1-A3) per profile reference.

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 v3.8, Plastics Europe, Federal LCA Commons 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[1)]	kg CO_2e	2,63E+00	2,77E-02	-6,43E-03	2,65E+00	3,53E-02	2,18E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,98E-03	1,75E-02	-1,67E-04	-7,04E-01
GWP – fossil	kg CO_2e	2,61E+00	2,76E-02	4,99E-03	2,65E+00	3,53E-02	2,07E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,98E-03	2,37E-02	5,27E-04	-7,05E-01
GWP – biogenic	kg CO_2e	6,94E-03	1,18E-06	-1,14E-02	-4,49E-03	0,00E+00	1,14E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,25E-03	-6,94E-04	0,00E+00
GWP – LULUC	kg CO_2e	3,32E-03	1,53E-05	5,02E-06	3,34E-03	1,48E-05	2,22E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,19E-06	3,09E-05	4,97E-07	3,69E-04
Ozone depletion pot.	kg CFC-$_{11}$e	1,99E-07	5,97E-09	4,51E-09	2,10E-07	7,61E-09	1,11E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,85E-09	2,55E-09	2,13E-10	-2,50E-08
Acidification potential	mol H^+e	8,55E-02	4,62E-04	2,35E-05	8,60E-02	1,04E-04	4,49E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,27E-05	2,72E-04	4,95E-06	-3,06E-03
EP-freshwater[2)]	kg Pe	1,45E-04	1,51E-07	1,47E-07	1,45E-04	2,99E-07	7,49E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,70E-08	1,03E-06	5,52E-09	-5,74E-06
EP-marine	kg Ne	5,07E-03	1,12E-04	6,14E-06	5,19E-03	2,07E-05	3,03E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,52E-06	5,77E-05	1,71E-06	-1,96E-04
EP-terrestrial	mol Ne	3,52E-01	1,24E-03	6,37E-05	3,54E-01	2,31E-04	1,81E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,02E-05	6,64E-04	1,89E-05	-8,19E-03
POCP ("smog")[3)]	kg NMVOCe	1,16E-02	3,33E-04	2,00E-05	1,20E-02	8,65E-05	7,38E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,93E-05	1,82E-04	5,48E-06	-4,24E-03
ADP-minerals & metals[4)]	kg Sbe	2,53E-04	7,11E-08	1,25E-07	2,53E-04	1,25E-07	1,71E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,89E-08	2,71E-06	1,21E-09	-1,95E-05
ADP-fossil resources	MJ	3,30E+01	3,81E-01	8,94E-02	3,35E+01	5,12E-01	2,44E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E-01	2,84E-01	1,44E-02	-6,06E+00
Water use[5)]	m^3e depr.	1,71E+00	1,51E-03	5,97E-03	1,72E+00	2,26E-03	8,73E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,56E-04	4,83E-03	4,58E-05	2,29E-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	8,89E-07	1,59E-09	2,49E-10	8,91E-07	2,81E-09	4,49E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,43E-10	3,70E-09	9,97E-11	-3,76E-08
Ionizing radiation[6]	kBq U235e	2,86E-01	1,90E-03	9,30E-04	2,88E-01	2,39E-03	1,50E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,23E-04	1,70E-03	6,53E-05	1,53E-02
Ecotoxicity (freshwater)	CTUe	1,88E+02	2,86E-01	9,43E-02	1,88E+02	4,69E-01	9,52E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,91E-02	1,33E+00	9,42E-03	-1,84E+01
Human toxicity, cancer	CTUh	2,17E-08	1,34E-11	6,09E-12	2,17E-08	1,32E-11	1,09E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,05E-12	3,98E-11	2,35E-13	6,25E-09
Human tox. non-cancer	CTUh	1,44E-07	2,45E-10	1,23E-10	1,44E-07	4,26E-10	7,32E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,70E-11	1,72E-09	6,16E-12	3,75E-08
SQP[7]	-	1,01E+01	1,78E-01	9,84E-01	1,12E+01	3,59E-01	6,17E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,43E-02	5,66E-01	3,09E-02	-3,02E+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	3,16E+00	4,30E-03	1,36E-01	3,30E+00	6,08E-03	3,08E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,73E-03	4,37E-02	1,25E-04	-7,63E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,18E-01	1,18E-01	0,00E+00	-1,18E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	3,16E+00	4,30E-03	2,54E-01	3,42E+00	6,08E-03	1,91E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,73E-03	4,37E-02	1,25E-04	-7,63E-01
Non-re. PER as energy	MJ	3,30E+01	3,81E-01	7,49E-02	3,34E+01	5,12E-01	2,44E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E-01	2,84E-01	1,44E-02	-6,06E+00
Non-re. PER as material	MJ	0,00E+00	0,00E+00	1,08E-02	1,08E-02	0,00E+00	-1,08E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-re. PER	MJ	3,30E+01	3,81E-01	8,58E-02	3,34E+01	5,12E-01	2,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E-01	2,84E-01	1,44E-02	-6,06E+00
Secondary materials	kg	5,39E-01	1,49E-04	7,36E-05	5,39E-01	1,71E-04	3,03E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,04E-05	3,05E-04	3,03E-06	4,47E-01
Renew. secondary fuels	MJ	2,38E-04	1,02E-06	2,40E-06	2,41E-04	2,21E-06	1,31E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,45E-07	1,55E-05	7,93E-08	-1,01E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	3,38E-02	3,83E-05	2,51E-02	5,90E-02	6,10E-05	3,10E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,51E-05	1,38E-04	1,58E-05	-1,86E-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	8,39E-01	4,71E-04	4,34E-04	8,40E-01	7,40E-04	4,22E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,35E-04	2,18E-03	0,00E+00	-3,98E-01
Non-hazardous waste	kg	5,32E+00	6,23E-03	6,05E-03	5,34E+00	1,18E-02	2,73E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,40E-03	5,53E-02	1,00E-01	-1,23E+00
Radioactive waste	kg	1,05E-04	2,66E-06	1,50E-06	1,09E-04	3,40E-06	2,57E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,17E-07	1,25E-06	0,00E+00	-1,33E-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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	2,87E-02	2,87E-02	0,00E+00	5,89E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,20E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	9,13E-05	9,13E-05	0,00E+00	4,57E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	5,45E-08	5,45E-08	0,00E+00	2,72E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	2,53E+00	2,74E-02	4,91E-03	2,57E+00	3,49E-02	2,02E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,91E-03	2,33E-02	5,16E-04	-6,52E-01
Ozone depletion Pot.	kg CFC_{-11}e	1,85E-07	4,73E-09	4,39E-09	1,94E-07	6,03E-09	1,02E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,47E-09	2,05E-09	1,69E-10	-3,23E-08
Acidification	kg SO_2e	4,91E-02	3,70E-04	1,86E-05	4,95E-02	8,52E-05	2,63E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,86E-05	2,19E-04	3,74E-06	-2,44E-03
Eutrophication	kg PO_4^3e	1,46E-02	4,48E-05	5,22E-06	1,47E-02	1,88E-05	7,57E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,01E-06	6,83E-05	8,07E-07	-1,17E-03
POCP (“smog”)	kg C_2H_4e	9,47E-04	1,04E-05	8,87E-07	9,58E-04	4,23E-06	6,80E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,39E-07	8,35E-06	1,57E-07	-5,26E-04
ADP-elements	kg Sbe	2,52E-04	6,95E-08	1,24E-07	2,52E-04	1,22E-07	1,71E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,82E-08	2,71E-06	1,19E-09	-1,95E-05
ADP-fossil	MJ	3,30E+01	3,81E-01	8,60E-02	3,34E+01	5,12E-01	2,39E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E-01	2,84E-01	1,44E-02	-6,06E+00

ENVIRONMENTAL IMPACTS – FRENCH NATIONAL COMPLEMENTS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-elements	kg Sbe	2,52E-04	6,95E-08	1,24E-07	2,52E-04	1,22E-07	1,28E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,82E-08	2,71E-06	1,19E-09	-1,95E-05
Hazardous waste disposed	kg	8,39E-01	4,71E-04	4,32E-04	8,40E-01	7,40E-04	4,22E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,35E-04	2,18E-03	0,00E+00	-3,98E-01
Non-haz. waste disposed	kg	5,32E+00	6,23E-03	6,04E-03	5,34E+00	1,18E-02	2,72E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,40E-03	5,53E-02	1,00E-01	-1,23E+00
Air pollution	m^3	1,63E+03	4,30E+00	7,58E-01	1,63E+03	5,22E+00	8,25E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E+00	1,15E+01	1,16E-01	-4,23E+02
Water pollution	m^3	4,43E+01	2,95E-02	2,48E-02	4,44E+01	4,09E-02	2,25E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,10E-02	3,68E-01	7,66E-04	1,97E+00

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

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	2,61E+00	2,76E-02	4,99E-03	2,65E+00	3,53E-02	2,07E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,98E-03	2,37E-02	5,27E-04	-7,05E-01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.

ENVIRONMENTAL IMPACTS – BEPALINGSMETODE, NETHERLANDS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Shadow price	€	8,25E-01	5,14E-03	9,11E-04	8,31E-01	4,22E-03	4,25E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,34E-04	1,16E-02	8,67E-05	-1,40E-01
Terrestrial ecotoxicity	DCB eq	1,28E-02	7,02E-05	1,89E-05	1,28E-02	9,76E-05	6,66E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,28E-05	2,73E-04	1,44E-06	1,23E-02
Seawater ecotoxicity	DCB eq	1,08E+03	3,84E+00	1,04E+00	1,09E+03	5,33E+00	5,57E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,05E+00	1,65E+01	9,07E-02	-1,41E+02
Freshwater ecotoxicity	DCB eq	9,20E-02	3,84E-04	1,19E-04	9,25E-02	5,33E-04	4,69E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,25E-04	5,61E-04	8,99E-06	-6,71E-03
Human ecotoxicity	DCB eq	2,82E+00	1,60E-02	4,75E-03	2,84E+00	1,51E-02	1,47E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,41E-03	8,03E-02	3,09E-04	-8,06E-01
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ADP Fossil Fuels	kg Sbe	1,59E-02	1,83E-04	4,14E-05	1,61E-02	2,46E-04	1,17E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,71E-05	1,36E-04	6,94E-06	-2,92E-03

ANNEX 1: SCALING TABLE FOR THE GWP RESULTS OF SINIAT METAL PROFILES 0,6MM

Product		UDT52/P	UDT62/P	UDT72/P	UDT92/P	UDT148/P
Product linear mass (kg/m)		0,75	0,65	0,7	0,85	1,11
Impact category		A1-A3	A1-A3	A1-A3	A1-A3	A1-A3
EN 15804+A2, PEF	GWP - total, kg CO2e	1,99	1,72	1,86	2,25	2,94
	GWP - fossil, kg CO2e	1,99	1,72	1,86	2,25	2,94
	GWP - biogenic, kg CO2e	-0,0034	-0,0029	-0,0031	-0,0038	-0,0050
	GWP - LULUC, kg CO2e	0,0025	0,0022	0,0023	0,0028	0,0037
EN 15804+A1, CML / ISO 21930	Global Warming Potential, kg CO2e	1,93	1,67	1,80	2,18	2,85

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.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited
22.11.2024

EPD Hub
VERIFIED ISO 14025