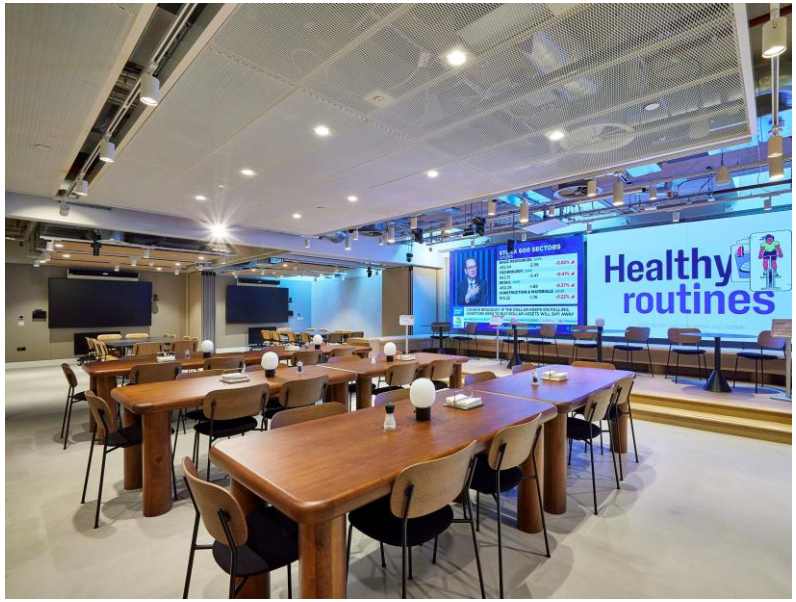
ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

1m² of SAS Expanded Mesh Tiles
SAS International



EPD HUB, HUB-4820
Published on 23.01.2026, last updated on 23.01.2026, valid until 22.01.2031

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	SAS International
Address	EMAC House, Unit 28 Suttons Business Park, Sutton Park Avenue, Earley, Reading, UK RG6 1AZ
Contact details	enquiries@sasintgroup.com
Website	https://sasintgroup.com/

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	Third party verified EPD
Scope of the EPD	Cradle to Gate with options (A5), modules C1-C4 and Module D
EPD author	Matthew Branigan, SAS International
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Yazan Badour, as an authorised 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	1m² of SAS Expanded Mesh Tiles
Additional labels	SAS Mesh types: SAS DXL78, SAS DXL73, SAS DL60, SAS DML55, SAS DM50, SAS DS47, SAS HM63, SAS HS58
Product reference	-
Place(s) of raw material origin	UK and Europe
Place of production	SAS Bridgend UK
Place(s) of installation and use	United Kingdom
Period for data	Jan 2024 to Jan 2025
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	Not Applicable
A1-A3 Specific data (%)	10.3

ENVIRONMENTAL DATA SUMMARY

Declared unit	1m²
Declared unit mass	5.49 kg
Mass of packaging	0.620 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	13.9
GWP-total, A1-A3 ($kgCO_2e$)	11.9
Secondary material, inputs (%)	17.2
Secondary material, outputs (%)	80
Total energy use, A1-A3 (kWh)	43.8
Net freshwater use, A1-A3 (m^3)	3.81

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

SAS International is a leading British manufacturer of quality metal ceilings and bespoke architectural metalwork. Installed in iconic, landmark buildings worldwide, SAS leads through innovation, cutting-edge design and technical acoustic expertise. Success is built on continued investment in manufacturing and achieving value for clients through world-class engineered solutions. Among many other aspects of commercial ceilings and interiors, SAS produces suspended ceilings for a vast range of spaces across the world. Our acoustic suspended ceilings provide effective solutions for commercial buildings with high quality materials and class leading design.

PRODUCT DESCRIPTION

SAS Expanded Mesh metal ceilings are an alternative option to traditional perforated metal ceiling tiles. Offering a wide range of patterns and paint finish options, panels can be manufactured to the specifiers shape and design. This material is specified for its open area and textured appearance. This range includes:

SAS Mesh Pattern	Open Area %
SAS DXL78	78%
SAS DXL73	73%
SAS DL60	60%
SAS DML55	55%
SAS DM50	50%
SAS DS47	47%
SAS HM63	63%
SAS HS58	58%

Adjustable to bespoke designs tile shape, design and mesh can be designed and manufactured in a wide range of patterns including profiles that are round, square, diamond and hexagonal.
SAS Mesh tiles are compatible with the following SAS system formats: SAS130, SAS200 and SAS205, SAS320 and SAS330, and SAS600 rafts.

The Life Cycle Assessment (LCA) for SAS Mesh tiles has been conducted using a representative product: the SAS Mesh DML-72 tiles with a Polyester Powder Coated (PPC) finish. This analysis is based on a functional unit of 1m² of tile intended for use in ceiling applications. The manufacturing process and material composition are consistent across all SAS mesh tile products, making this LCA applicable to other mesh patterns within the product group. To support end users in estimating the environmental impact of other SAS mesh tile variants, a Scaling Factor Table is provided at the end of the Environmental Product Declaration (EPD). This table enables users to adjust the impact results from the DML-72 Mesh tile to reflect the specific characteristics of alternative mesh patterns.

Further information can be found at: https://sasintgroup.com/.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	94%	UK/Europe
Minerals	-	-
Fossil materials	-	-
Bio-based materials	6%	UK/Europe

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0.0027
Biogenic carbon content in packaging, kg C	0.523

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1m^2
Mass per declared unit	5.49 kg
Functional unit	1m² of SAS Mesh Tiles
Reference service life	25

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	ND	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

Not declared = ND.

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. Energy usage is calculated based on the factory's average annual energy consumption, divided by the total manufacturing output over the same period. This calculation provides the specific energy consumption per unit of product, ensuring that the reported data accurately reflects the energy intensity of the manufacturing process.

The product is composed of metal (steel). These materials are transported to SAS's production facility in Bridgend, UK, where the main manufacturing processes take place, including cutting, forming and assembly of steel components to form the product before powder coating. The completed product is then packed in cardboard and placed into wooden crates before being transported to the installation site.

TRANSPORT AND INSTALLATION (A4-A5)

No transportation impacts have been included in stage A4. This means that emissions and environmental effects related to the transport of the product from the factory to the installation site, or between any other logistical points within this phase, are not accounted for in this assessment. The A5 installation stage includes the management of waste generated during the installation process, specifically the disposal and handling of packaging materials such as cardboard and wooden crates. These waste materials are accounted for in the assessment to capture their environmental impact within the installation phase. Packaging waste treatment rates are based on EUROSTAT data.

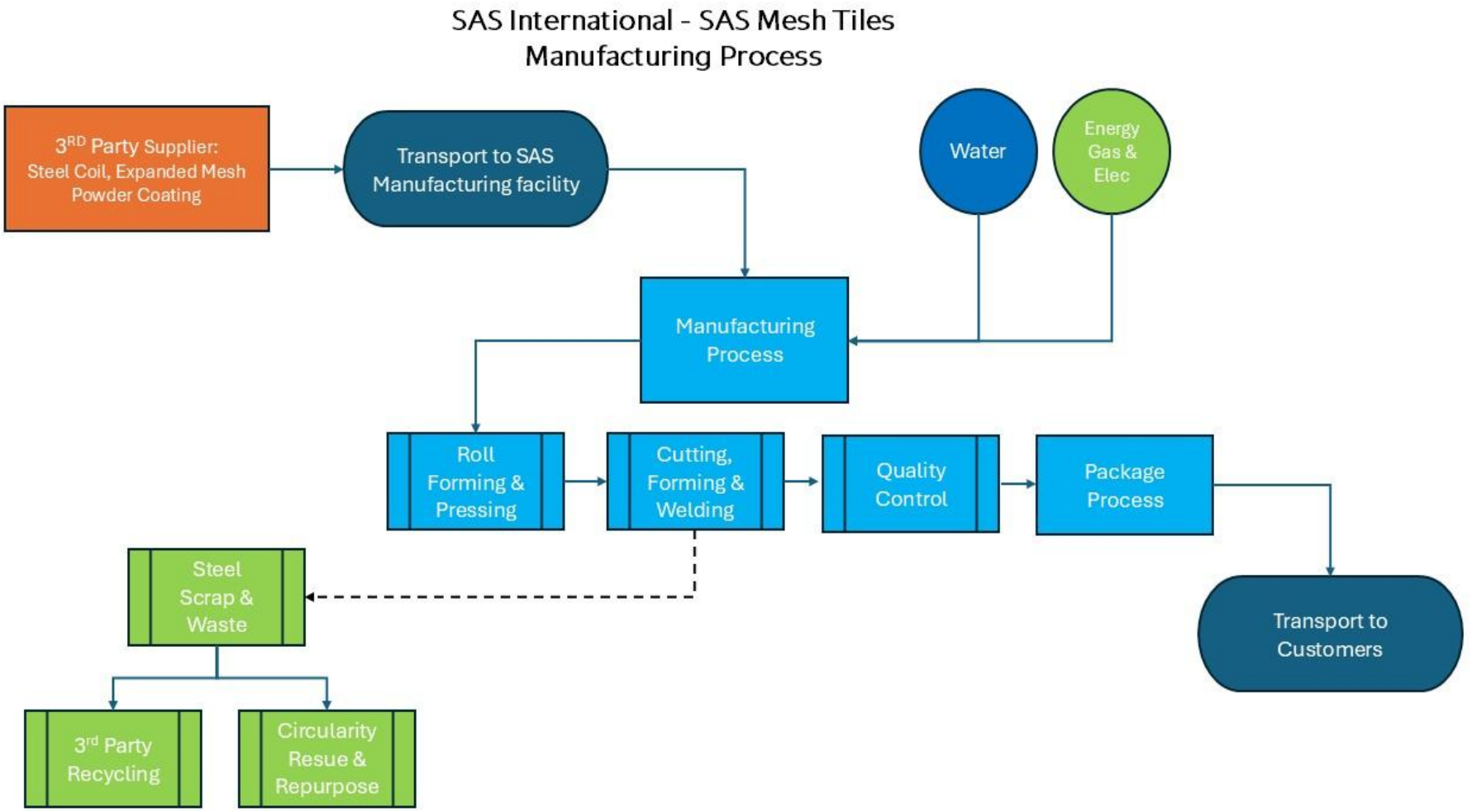
PRODUCT USE AND MAINTENANCE (B1-B7)

N/A - Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy and natural resources in demolition process is assumed to be negligible. It is assumed that the waste is collected separately and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). According to EN 50693:2019, the sequence of treatment operations occurring to the product shall include de-pollution, fractions separation and preparation (dismantling, crushing, shredding, sorting), recycling, other material recovery, energy recovery, and disposal. In this study, the default values from table G.4 of EN 50693 is used for treating materials in different waste treatment methods. Due to the material composition, the product is suitable for recycling at end of life

SYSTEM 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.

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.

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	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	-

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification 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

RESULTS ARE FOR DECLARED UNIT OF 1m² OF SAS Mesh DML-72 tile **WITH POLYESTER POWDER COAT FINISH**

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	1.24E+01	2.18E-01	-6.79E-01	1.19E+01	ND	1.95E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.25E-01	1.19E-01	6.86E-03	-7.88E+00
GWP – fossil	kg CO_2e	1.24E+01	2.17E-01	1.24E+00	1.39E+01	ND	2.11E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.25E-01	1.19E-01	6.85E-03	-7.88E+00
GWP – biogenic	kg CO_2e	-1.01E-02	4.19E-05	-1.92E+00	-1.93E+00	ND	1.92E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.92E-05	-3.56E-04	-2.18E-06	0.00E+00
GWP – LULUC	kg CO_2e	1.96E-02	7.71E-05	1.68E-03	2.14E-02	ND	3.13E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	9.97E-05	1.40E-04	3.92E-06	-9.30E-04
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	6.12E-08	4.33E-09	2.40E-08	8.95E-08	ND	3.44E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.15E-09	1.28E-09	1.99E-10	-2.59E-08
Acidification potential	mol H^+e	3.57E-02	6.81E-04	2.28E-03	3.86E-02	ND	1.16E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.50E-04	1.28E-03	4.86E-05	-3.11E-02
EP-freshwater[2)]	kg Pe	2.09E-04	1.44E-05	5.34E-04	7.57E-04	ND	5.60E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.75E-05	6.46E-05	5.63E-07	-3.37E-03
EP-marine	kg Ne	6.55E-03	2.30E-04	9.06E-04	7.68E-03	ND	1.27E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.43E-04	2.84E-04	1.85E-05	-6.92E-03
EP-terrestrial	mol Ne	6.92E-02	2.50E-03	8.10E-03	7.98E-02	ND	4.70E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.65E-03	3.20E-03	2.02E-04	-7.59E-02
POCP ("smog")[3)]	kg NMVOCe	2.58E-02	1.07E-03	2.40E-03	2.93E-02	ND	1.55E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.04E-03	9.42E-04	7.25E-05	-2.58E-02
ADP-minerals & metals[4)]	kg Sbe	6.71E-06	7.02E-07	5.63E-06	1.30E-05	ND	5.97E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.39E-07	7.03E-06	1.09E-08	-7.63E-05
ADP-fossil resources	MJ	1.51E+02	3.06E+00	7.03E+00	1.61E+02	ND	2.98E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.16E+00	1.41E+00	1.68E-01	-7.15E+01
Water use[5)]	m^3e depr.	3.10E-01	1.51E-02	2.05E-01	5.30E-01	ND	8.00E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.46E-02	2.23E-02	4.85E-04	-1.31E+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	1.19E-06	1.74E-08	5.77E-08	1.27E-06	ND	2.05E-09	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.79E-08	1.78E-08	1.11E-09	-5.21E-07
Ionizing radiation[6]	kBq U235e	1.42E-01	3.91E-03	9.26E-02	2.39E-01	ND	7.96E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.56E-03	5.06E-03	1.06E-04	2.95E-01
Ecotoxicity (freshwater)	CTUe	4.16E+01	4.00E-01	3.47E+00	4.55E+01	ND	1.20E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.99E-01	8.17E-01	1.41E-02	-1.93E+01
Human toxicity, cancer	CTUh	8.44E-09	3.69E-11	6.28E-10	9.11E-09	ND	1.05E-11	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.83E-11	9.55E-11	1.26E-12	-1.26E-09
Human tox. non-cancer	CTUh	6.41E-08	1.92E-09	4.20E-09	7.02E-08	ND	5.74E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.98E-09	6.10E-09	2.90E-11	-6.21E-08
SQP[7]	-	1.11E+01	1.92E+00	2.07E+00	1.51E+01	ND	2.77E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.89E+00	2.67E+00	3.31E-01	-2.27E+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	3.17E+00	5.29E-02	6.44E+00	9.65E+00	ND	-9.16E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.33E-02	2.19E-01	1.62E-03	-4.94E+00
Renew. PER as material	MJ	0.00E+00	0.00E+00	1.72E+01	1.72E+01	ND	-1.72E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renew. PER	MJ	3.17E+00	5.29E-02	2.36E+01	2.68E+01	ND	-2.63E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.33E-02	2.19E-01	1.62E-03	-4.94E+00
Non-re. PER as energy	MJ	1.50E+02	3.06E+00	-4.69E+00	1.48E+02	ND	2.98E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.16E+00	1.41E+00	1.68E-01	-7.15E+01
Non-re. PER as material	MJ	0.00E+00	0.00E+00	8.38E-04	8.38E-04	ND	-8.38E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-re. PER	MJ	1.50E+02	3.06E+00	-4.69E+00	1.48E+02	ND	2.97E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.16E+00	1.41E+00	1.68E-01	-7.15E+01
Secondary materials	kg	9.42E-01	1.39E-03	2.13E-02	9.65E-01	ND	2.04E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.42E-03	1.63E-03	4.23E-05	4.34E+00
Renew. secondary fuels	MJ	0.00E+00	1.75E-05	1.87E-03	1.88E-03	ND	2.02E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.81E-05	7.41E-05	8.75E-07	-6.50E-04
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	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	3.80E+00	4.16E-04	5.41E-03	3.81E+00	ND	-7.72E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.18E-04	6.15E-04	1.75E-04	-1.73E-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	7.19E-09	4.38E-03	3.36E-01	3.40E-01	ND	1.95E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	5.50E-03	1.10E-02	1.86E-04	-2.60E+00
Non-hazardous waste	kg	5.39E-03	9.24E-02	3.64E+00	3.74E+00	ND	1.36E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.03E-01	3.09E-01	4.25E-03	-2.02E+01
Radioactive waste	kg	1.12E-04	9.72E-07	2.52E-05	1.38E-04	ND	1.99E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.26E-07	1.24E-06	2.58E-08	7.68E-05

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	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	5.56E+00	5.49E-02	6.20E-01	6.23E+00	ND	2.07E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	4.39E+00	0.00E+00	0.00E+00
Materials for energy rec	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	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	ND	9.58E-01	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	ND	4.03E-01	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	ND	5.55E-01	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	1.13E+01	2.16E-01	1.24E+00	1.28E+01	ND	3.63E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.24E-01	1.19E-01	6.79E-03	-7.83E+00
Ozone depletion Pot.	kg $CFC_{-11}e$	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acidification	kg SO_2e	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Eutrophication	kg PO_4^3e	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
POCP (“smog”)	kg C_2H_4e	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADP-elements	kg Sbe	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-fossil	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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	1.24E+01	2.18E-01	1.24E+00	1.39E+01	ND	2.12E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.25E-01	1.19E-01	6.86E-03	-7.88E+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. Heat production, natural gas, at industrial furnace >100kW, Albania, Ecoinvent, 0.0773 kgCO2e/MJ
2. Electricity, medium voltage, residual mix, United Kingdom, Ecoinvent, 0.44 kgCO2e/kWh

Installation scenario documentation - A5 (Installation waste)

1. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 0.19 kg
2. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.18 kg
3. Exported Energy: Electricity, Ecoinvent, 0.4 MJ
4. Exported Energy: Electricity, Ecoinvent, 0.0032 MJ
5. Exported Energy: Thermal, Ecoinvent, 0.55 MJ
6. Exported Energy: Thermal, Ecoinvent, 0.0046 MJ
7. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.23 kg
8. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.017 kg
9. Treatment of waste packaging paper, municipal incineration, Ecoinvent, 0.0016 kg
10. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 0.0018 kg

End-of-life scenario documentation - C1-C4 (Data source)

1. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 4.39 kg
2. Treatment of scrap steel, inert material landfill, Ecoinvent, 1.098 kg

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

Yazan Badour, as an authorised verifier acting for EPD Hub Limited

23.01.2026

APPENDIX

INDIVIDUAL SAS EXPANDED MESH PRODUCT CALCULATIONS

The Life Cycle Assessment (LCA) for SAS mesh ceiling tiles has been conducted using a representative product: a 1m² SAS DML-72 mesh pattern tile with a Polyester Powder Coated (PPC) finish for ceiling applications.

The Scaling Factor Table can be used to estimate the environmental impact profiles of alternative SAS mesh types and patterns. Environmental impacts and Global Warming Potential (GWP) for each alternative mesh type are calculated by applying the relevant scaling factor (provided in the table below) using the Product-Specific Scaling Formula:

Product-Specific Scaling Formula: SAS Mesh Pattern Scaling Factor X Environmental Impact/GWP total = Kg/ CO_2 per m² of SAS product

Example Calculation:
SAS DXL-78 Mesh: 2.02 (Scaling Factor) × 11.5 kg/ CO_2 per m² (GWP Total of reference product) = 23.23 kg/ CO_2 per m² of SAS DXL-78 mesh tiles

SAS Mesh Pattern	Open Area %	Scaling factor
SAS DXL78	78%	2.02
SAS DXL73	73%	1.56
SAS DL60	60%	2.00
SAS DML55	55%	2.21
SAS DM50	50%	1.84
SAS DS47	47%	1.89
SAS HM63	63%	1.45
SAS HS58	58%	1.43