Features and Benefits

- Specially engineered suspension system to receive USG Celebration[™]
- Metal Panels for a sleek, contemporary look.
- Wind load tested in accordance to: UL 580, UL 1897, and Miami Dade TAS 202 and 203. Refer to Exterior Application Guide SC2561.
- Narrow-profile, slotted grid system with G90 galvanization.
- Stainless steel Quick-Release™ clips on cross tees.
- Black reveal in the slot to create a clean and sharp aesthetic.
- ICC-ES evaluated for seismic installations (ESR-1222).
- Accepts USG Celebration[™] Metal Panel Ceiling System.



USG 🔰 CGC

TRACI v2.1 Environmental Impacts)		
Functional Unit – 1 square foot (0.0929 square meters)	USG Donn [®] Brand Intermediate Duty DXFEV™ Grid Cradle-to-Grave	USG Donn [®] Brand Heavy Duty DXFEV™ Grid Cradle-to-Grave
Global Warming Potential (kg CO₂ eq.)	4.31E-01	4.76E-01
Ozone Depletion Potential (kg CFC-11 eq.)	3.16E-10	3.17E-10
Acidification Potential (kg SO ₂ eq.)	1.17E-03	1.27E-03
Eutrophication Potential (kg N eq.)	5.23E-05	5.71E-05
Photochemical Ozone Creation Potential (kg O ₃ eq.)	1.44E-02	1.59E-02
Abiotic Resource Depletion Potential Fossil Fuels (MJ, LHV)	2.53E-01	2.79E-01

For over a century, sustainable practices have naturally been an inherent part of our business at USG and CGC. Today, they help shape the innovative products that become the homes where we live, the buildings where we work and the arenas where we play. From the product formulations we choose, to the processes we employ, USG and CGC are committed to designing, manufacturing, and distributing products that minimize overall environmental impacts and contribute toward a healthier living space. We believe that transparency of product information is essential for our stakeholders and Environmental Product Declarations (EPDs) are the next step toward an even more transparent USG and CGC. For additional information, visit usg.com, cgcinc.com and usg.ecomedes.com.







This declaration is an Environmental Product Declaration (EPD) in accordance with ISO 14025 and ISO 21930; 2017. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc.

USG Corporation has sole ownership, liability, and responsibility for this EPD.

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of products using EPD information shall be based on the product's use and impacts at the building or construction works level, and therefore EPDs may not be used for comparability purposes when not considering the whole building life cycle. EPD comparability is only possible when all stages of a life cycle have been considered. However, variations and deviations are possible. Example of variations: Different LCA software and background LCI datasets may lead to differences in results upstream or downstream of the life cycle stages declared.

DECLARATION NUMBER	EPD 659					
EPD TYPE	Product Specific Plant Specific E	PD				
PROGRAM OPERATOR	ASTM International – 100 Barr H www.astn	larbor Drive, West Conshohocken, PA USA n.org				
DECLARATION HOLDER	USG Corporation - 550 W. Adam	ns St., Chicago, IL USA				
EPD Type	Type III Declaration per ISO 140	25:2006				
DECLARED PRODUCT	USG Donn [®] Brand Fineline [®] DX	FEV™ Acoustical Suspension System				
DATE OF ISSUE PERIOD OF VALIDITY	4/1/24 5 Years					
CORE STANDARD	ISO 21930					
CORE PCR	Related Product and Services in	bry Rules for Construction Products for Building- North America; Part A: Life Cycle Assessment equirements. v3.2, December 2018				
SUB-CATEGORY PCR		for Building-Related Products and Services; Requirements; January 15, 2020				
ACLCA PCR OPEN STANDARD CONFORMANCE	Transparency					
ACLCA PCR OPEN STANDARD VERSION	Version 1.0 May 25, 2022					
This declaration was independently v 14025 and ISO 21930:2017 □ INTERNAL	erified in accordance with ISO ⊠ EXTERNAL	Tim Brooke, ASTM International				
This life cycle assessment was indep with ISO 14044 and the reference PC	endently verified in accordance	Thomas P. Gloria, Industrial Ecology Consultants				





1. Product System Documentation

1.1 Product Description

The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System is a hot-dipped galvanized, roll-formed suspension system. The system is generally used to suspend acoustical ceiling tiles and/or metal panels. It is manufactured by USG in Westlake, OH. It is tested in accordance with ASTM C635 Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings. This EPD covers the USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Intermediate Duty and Heavy Duty profiles.

The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System is covered by the following Construction Specification Institute (CSI) MasterFormat[®] codes.

09 22 26.23 Metal Suspension System09 53 00 Acoustical Ceiling Suspension System09 53 23 Metal Acoustical Ceiling Suspension Assemblies09 54 36 Suspended Decorative Grids

Corresponding applicable UNSPSC codes include:

25172000 Suspension System Components

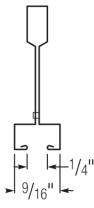
1.2 Designated Application

The USG[™] Donn[®] Brand Acoustical Suspension System consists of main tees, cross tees and ancillary products (see USG product literature for typical installation instructions) that are assembled to provide a structure for the support of metal or non-metal ceiling panels.

1.3 Product Technical Data

Performance Attributes

- Class A
- Wind load tested
- Evaluated for seismic applications per ICC-ES evaluation report ESR-1222 for allowable values and conditions of use.







1.4 Placing on the Market/Application Rules

The USG[™] Donn[®] Brand Acoustical Suspension System must be installed in accordance with all applicable USG installation guidelinesand in accordance with ASTM C636 Standard Practice of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels. An approved installation guide entitled, <u>Acoustical Suspension System – Installation</u> <u>Guide: Suspended Ceiling</u>, is available on usg.com and cgcinc.com.

1.5 Delivery Status

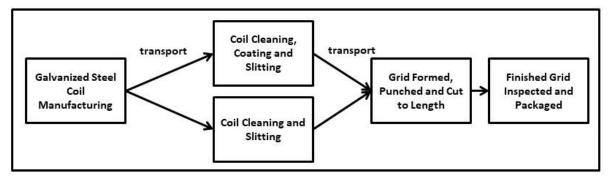
The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System arrives at the jobsite in cardboard boxes, which have been modeled in this study.

1.6 Product Composition

Material	USG™ Donn [®] Brand Intermediate Duty Fineline [®] DXFEV™ Acoustical Suspension System	USG [™] Donn® Brand Heavy Duty Fineline [®] DXFEV [™] Acoustical Suspension System				
Galvanized Steel Coil	99.8%	99.8%				
Paint	0.2%	0.2%				
Total	100.0%	100%				

Table 1.2: Product composition

1.7 Product Manufacture



During the manufacturing process, a piece of galvanized coated steel coil is formed into the proper configuration using a series of driven dies. A clip is attached to both ends of the main tee and cross tee members allowing for connection of the various pieces. All process scrap is recycled.





1.8 Environment and Health During Manufacturing

USG and CGC have led the building sector's effort in developing and supplying sustainable construction materials. Today, sustainability is integrated into the design and manufacture of every wall, ceiling, and flooring product. As both a producer and a buyer of raw materials, we have a responsibility to review and select each material we use. Each decision we make is based on careful consideration of environmental and safety effects. Raw materials used in our products are carefully selected and go through a screening procedure. This due diligence helps to ensure our products are safe to handle in our manufacturing plants and on job sites while having minimal impact on occupant health and indoor and outdoor environments.

1.9 Packaging

The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System is packaged in cardboard boxes. USG encourages the proper recycling of these cardboard boxes. Both the production and disposal of these packaging materials were modeled in this study

1.10 Conditions of Use

To ensure the longevity of the product, USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System should not be exposed to moisture, high humidity, or high temperature. Details for conditions of use may be found in the product specifications.

1.11 Distribution

The default transport distances per PCR (product transport from the point of manufacture to building site) of 497 miles (800 km) by diesel powered truck/trailer were used in this analysis.

1.12 Product Installation

The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension must be installed according to ASTM C636, ASTM E580, CISCA and USG requirements. Alternate installation methods may be used when approved by the authority having jurisdiction. An approved installation guide entitled, <u>Acoustical Suspension System – Installation Guide: Suspended Ceiling</u>, is available on usg.com and cgcinc.com. Installation of this product is accomplished by manual labor using mostly hand tools. No material or energy inputs are required on the jobsite. Per the PCR, a 7% waste factor was used in this LCA study.

1.13 Environment and Health During Use Stage

This product is not expected to produce any unusual hazards during normal use.

1.14 Reference Service Life

The USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System is a metal ceiling suspension system. Once installed, it should require no maintenance, refurbishment, or replacement. Accordingly, a default RSL of 75 years is assumed for this product. An assumed Estimated Service Life (ESL) of 75 years shall be used for building life.





1.15 Re-Use Phase

With proper care, USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System components are designed for disassembly and may be reused at the end of a building's life.

1.16 End-of-Life Disposal

USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System components are assumed to be recycled at end of life. Product disposal was modeled according to the guidelines provided in Part A, Table 2 (Product Disposal Assumptions by Region).

1.17 – Extraordinary Effects

Fire

All products covered by this EPD are certified to be Class A (flame spread of 25 or less, smoke developed of 50 or less per ASTM E84 or CAN ULc S102).

1.17.1 – Further Information

Further information can be found at usg.com and cgcinc.com.

2. LCA Calculation Rules

2.1 EPD Type

This EPD is a product specific, plant specific EPD.

2.2 Functional Unit

The functional unit is defined as 0.092 square meters with optional reporting of one square foot (12"x12") of installed product.

	USG™ Donn [®] Brand Intermediate Duty Fineline [®] DXFEV™ Acoustical Suspension System	USG™ Donn [®] Brand Heavy Duty Fineline [®] DXFEV™ Acoustical Suspension System
Functional Unit	1.43E+00 kg/sm	1.47E+00 kg/sm

Table 2.1: Functional unit





2.2 System Boundary

This EPD represents a "cradle-to-grave" LCA analysis for USG[™] Donn[®] Brand Fineline[®] DXFEV[™] Acoustical Suspension System. It covers all the production steps from raw material extraction (i.e., the cradle) to end of life disposal (grave).

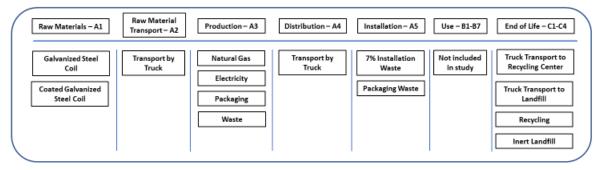


Figure 2.1: Specific processes covered by this EPD by life cycle stage

2.3 Estimates and Assumptions

The results are limited by the use of proxy processes rather than actual supplier generated primary data. This would include such processes as the production of the aluminum coil, which is specific to North America and covers the coil thickness used in this product but is not specific to the manufacturer used by USG. In addition, the data is limited in that the primary data was collected during 2022 and changes in operations may increase/decrease impacts in the future. Other data limitations include the use of secondary data sets instead of primary data for upstream and downstream processes, local impacts vs. global impacts, possible impacts vs. actual impacts, inherent uncertainty in the data sets, accuracy, and precision of impact assessment methodology, etc. Both human activity and capital equipment were excluded from the system boundary.

2.4 Cut-off Criteria

The requirements for the exclusion of inputs and outputs (cut-off rules) follows the guidance in ISO 21930 Section 7.1.8.

2.5 Background Data

All background was sourced from critically reviewed LCA for Experts databases from Sphera.





2.6 Data Requirements and Data Sources

The LCA model was created using the LCA for Experts software from Sphera (Version 10.7.1.28; Schema 8007). Specific comments related to data quality requirements cited in ISO 14025 Section 4.2.3.6.2 include the following.

Temporal: In the case of production, the LCI data was collected for the 2022 production year.

Geographical: Where possible, all processes were chosen as being representative of US manufacturing processes.

Technical: Where possible, the data selected for this study is specific to the technology used in the preparation of the various raw materials.

Precision: The raw material usage amounts were derived from plant data.

Completeness: Virtually all the significant raw material flows (> 99.9%) have been modeled.

Representative: Where possible all the data sets were selected to be representative of US-based production, are less than 10 years in age and are representative of the technology being employed.

Consistency: All the manufacturing processes were modeled in a consistent manner throughout this study in accordance with the goal and scope definitions.

Reproducibility: The information contained in this study, including raw material, energy and transportation distance inputs, have been fully documented in the LCA report.

Sources of Data: The sources for the processes used in this study have been fully provided in the LCA report and are representative of the material and energy sources used in actual production.

Uncertainty: The relative uncertainty associated with this study has been minimized. No significant assumptions have been made.

2.7 Period Under Review

All raw material and energy inputs are for the 2022 calendar year.

2.8 Allocation

No allocation was required in this study. The LCI data was collected for the 2022 production year.





3. LCA: Scenarios and additional technical information

Name	USG [™] Donn [®] Brand Intermediate Duty Fineline [®] DXFEV [™] Acoustical Suspension System	USG [™] Donn [®] Brand Heavy Duty Fineline [®] DXFEV™ Acoustical Suspension System	Unit
Fuel type	Diesel	Diesel	-
Liters of fuel (including	3.44E-03	3.53E-03	l/100km/sm
Vehicle type	US Truck	US Truck	-
Transport distance	800	800	km
Capacity	0.67	0.67	
Gross density of products transported (assembly only)	7,700	7,700	kg/m ³

Table 3.1. Transport to the building site (A4)

Table 3.2. Installation into the building (A5)

Name	Value	Unit
Ancillary materials	0	kg/sm
Net freshwater consumption specified by water source and fate	0	m³
Other resources	0	kg
Electricity consumption	0	kWh
Other energy carriers	0	MJ
Material loss	7	%
Mounting System (CPMS)	0	kg/sm
Output substances following waste treatment on site	0	%
Dust in the air	~ 0	kg
VOC content	< 9	µg/m³

Table 3.3. Use or application of the installed product (B1)

Name	Value	Unit
RSL	75	years
VOC	< 9	µg/m³





Name	Value	Unit						
Maintenance process information	As required by the PCR, a standard Life expectancy for ceiling panels based on historic practices of 75 years shall be used. No maintenance is required.							
Maintenance cycle	0	Number/ RSL						
Maintenance cycle	0	Number/ ESL						
Water consumption	0	m³						
Auxiliary	0	kg						
Other resources	0	kg						
Electricity consumption	0	kWh						
Other energy carriers	0	MJ						
Material loss	0	kg						

Table 3.4. Maintenance (B2)

Table 3.5. End of Life (C1-C4)

Name		USG [™] Donn [®] Brand Intermediate Duty Fineline [®] DXFEV [™] Acoustical Suspension System	USG™ Donn [®] Brand Heavy Duty Fineline [®] DXFEV™ Acoustical Suspension System	Unit
Collection	Collected separately	0	0	kg
process (specified by type)	Collected with mixed construction waste	0	0	kg/sm
	Reuse	0	0	kg
	Recycling (steel)	1.06E+00	1.09E+00	kg/sm
Recovery	Landfill (steel)	3.73E-01	3.83E-01	kg/sm
(specified by type)	Incineration	0	0	kg
	Incineration with	0	0	kg
	Energy conversion	0	0	-
Disposal	Product or material for final deposition	1.43E+00	1.47E+00	kg/sm
Removals of biogenic carbon (excluding packaging)		0	0	kg/sm





4. Environmental Indicators Derived from LCA

4.1 Life Cycle Assessment Results

	Produ	uct stag	e	Constru	Construction process stage Use stage End of life st			Use stage		fe stage)				
Raw Material Supply	Transport	Manufacturing	Transport	Construction-Installation P rocess	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational water Use	De-construction Demolition	Transport	Waste processing	Disposal
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
X	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	X	Х	Х	X

Figure 2: System Boundary

The following tables provide the LCA results for the USG [™] Donn[®] Brand DXFEV[™] Acoustical Suspension System. These results are for the USG grid plant in Westlake, OH. The results presented below are derived from an LCA study on a hypothetical 20'x50' ceiling with component quantities provided by the USG Ceilings Material Estimator, which can be found on the usg.com website.

North American LCA Environmental Impacts - 1 Square Meter of Donn [®] Brand Intermediate Duty Fineline [®] DXFEV™ Grid - 2'X2' Layout											
Environmental Impact Category Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D											
Global Warming Potential, excl. biogenic carbon (GWP)	kg CO2 eq.	4.16E+00	7.39E-02	3.78E-01	0.00E+00	1.78E-02	0.00E+00	5.53E-03	4.64E+00	-1.96E+00	
Ozone Depletion Potential (ODP)	kg CFC 11-eq.	3.16E-09	1.92E-16	2.38E-10	0.00E+00	4.64E-17	0.00E+00	2.92E-17	3.40E-09	5.35E-14	
Acidification Potential (AP)	kg SO2 eq.	1.13E-02	2.96E-04	9.30E-04	0.00E+00	4.38E-05	0.00E+00	3.45E-05	1.26E-02	-3.90E-03	
Eutrophication Potential (EP)	kg N eq.	4.67E-04	2.74E-05	6.16E-05	0.00E+00	4.84E-06	0.00E+00	1.49E-06	5.63E-04	-2.33E-04	
Photochemical Ozone Creation Potential (POCP)	kg O3-Equiv.	1.35E-01	6.85E-03	1.13E-02	0.00E+00	9.98E-04	0.00E+00	6.61E-04	1.55E-01	-4.21E-02	
Abiotic Depletion Potential (ADP) fossil fuels	MJ surplus energy	2.34E+00	1.38E-01	1.99E-01	0.00E+00	3.34E-02	0.00E+00	9.37E-03	2.72E+00	-2.49E-03	

North American LCA Environmental Impacts - 1 Square Foot of Donn [®] Brand Intermediate Duty Fineline [®] DXFEV™ Grid - 2'X2' Layout											
Environmental Impact Category	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D	
Global Warming Potential, excl. biogenic carbon (GWP)	kg CO2 eq.	3.87E-01	6.87E-03	3.51E-02	0.00E+00	1.66E-03	0.00E+00	5.14E-04	4.31E-01	-1.82E-01	
Ozone Depletion Potential (ODP)	kg CFC 11-eq.	2.94E-10	1.78E-17	2.21E-11	0.00E+00	4.31E-18	0.00E+00	2.71E-18	3.16E-10	4.97E-15	
Acidification Potential (AP)	kg SO2 eq.	1.05E-03	2.75E-05	8.64E-05	0.00E+00	4.07E-06	0.00E+00	3.21E-06	1.17E-03	-3.62E-04	
Eutrophication Potential (EP)	kg N eq.	4.34E-05	2.55E-06	5.73E-06	0.00E+00	4.50E-07	0.00E+00	1.38E-07	5.23E-05	-2.16E-05	
Photochemical Ozone Creation Potential (POCP)	kg O3-Equiv.	1.25E-02	6.37E-04	1.05E-03	0.00E+00	9.27E-05	0.00E+00	6.14E-05	1.44E-02	-3.91E-03	
Abiotic Depletion Potential (ADP) fossil fuels	MJ surplus energy	2.17E-01	1.28E-02	1.84E-02	0.00E+00	3.11E-03	0.00E+00	8.71E-04	2.53E-01	-2.31E-04	





	th American L nn [®] Brand Hea			•						
Environmental Impact Category	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Global warming	kg CO2 eq.	4.60E+00	8.19E-02	4.12E-01	0.00E+00	1.83E-02	0.00E+00	5.68E-03	5.12E+00	-2.01E+00
Ozone Depletion	kg CFC 11-eq.	3.17E-09	2.13E-16	2.39E-10	0.00E+00	4.77E-17	0.00E+00	3.00E-17	3.41E-09	5.50E-14
Acidification	kg SO2 eq.	1.22E-02	3.29E-04	1.00E-03	0.00E+00	4.50E-05	0.00E+00	3.55E-05	1.37E-02	-4.01E-03
Eutrophication	kg N eq.	5.12E-04	3.04E-05	6.55E-05	0.00E+00	4.97E-06	0.00E+00	1.53E-06	6.15E-04	-2.39E-04
Photochemical Ozone Creation	kg O3-Equiv.	1.49E-01	7.60E-03	1.25E-02	0.00E+00	1.03E-03	0.00E+00	6.79E-04	1.71E-01	-4.32E-02
Depletion of abiotic resources (elements)	MJ surplus energy	2.59E+00	1.53E-01	2.19E-01	0.00E+00	3.44E-02	0.00E+00	9.63E-03	3.00E+00	-2.56E-03

North American LCA Environmental Impacts - 1 Square Foot of

Dor	n [®] Brand Hea	vy Duty F	ineline®	DXFEV™	Grid - 2')	(2' Layou	ıt			
Environmental Impact Category	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Global warming	kg CO2 eq.	4.27E-01	7.61E-03	3.82E-02	0.00E+00	1.70E-03	0.00E+00	5.28E-04	4.76E-01	-1.87E-01
Ozone Depletion	kg CFC 11-eq.	2.95E-10	1.98E-17	2.22E-11	0.00E+00	4.43E-18	0.00E+00	2.79E-18	3.17E-10	5.11E-15
Acidification	kg SO2 eq.	1.14E-03	3.05E-05	9.33E-05	0.00E+00	4.18E-06	0.00E+00	3.30E-06	1.27E-03	-3.72E-04
Eutrophication	kg N eq.	4.76E-05	2.82E-06	6.08E-06	0.00E+00	4.62E-07	0.00E+00	1.42E-07	5.71E-05	-2.22E-05
Photochemical Ozone Creation	kg O3-Equiv.	1.38E-02	7.06E-04	1.16E-03	0.00E+00	9.53E-05	0.00E+00	6.31E-05	1.59E-02	-4.01E-03
Depletion of abiotic resources (elements)	MJ surplus energy	2.40E-01	1.42E-02	2.03E-02	0.00E+00	3.19E-03	0.00E+00	8.95E-04	2.79E-01	-2.38E-04

	orth American Brand Interme									
Environmental Impact Category	Units	A1-A3		A5	C1		C3	C4	Total A1-C4	D
Global Warming Potential, excl. biogenic carbon (GWP)	kg CO2 eq.	2.90E+03	5.15E+01	2.63E+02	0.00E+00	1.24E+01	0.00E+00	3.86E+00	3.24E+03	-1.37E+03
Ozone Depletion Potential (ODP)	kg CFC 11-eq.	2.21E-06	1.34E-13	1.66E-07	0.00E+00	3.24E-14	0.00E+00	2.04E-14	2.37E-06	3.73E-11
Acidification Potential (AP)	kg SO2 eq.	7.88E+00	2.07E-01	6.48E-01	0.00E+00	3.05E-02	0.00E+00	2.41E-02	8.79E+00	-2.72E+00
Eutrophication Potential (EP)	kg N eq.	3.26E-01	1.91E-02	4.30E-02	0.00E+00	3.38E-03	0.00E+00	1.04E-03	3.93E-01	-1.63E-01
Photochemical Ozone Creation Potential (POCP)	kg O3-Equiv.	9.42E+01	4.78E+00	7.91E+00	0.00E+00	6.96E-01	0.00E+00	4.61E-01	1.08E+02	-2.93E+01
Abiotic Depletion Potential (ADP) fossil fuels	MJ surplus energy	1.63E+03	9.64E+01	1.38E+02	0.00E+00	2.33E+01	0.00E+00	6.54E+00	1.90E+03	-1.74E+00

North American LCA Environmental Impacts - 1 Metric Ton of

Dor	n [®] Brand Hea	vy Duty F	ineline	DXFEV™	Grid - 2'2	K2' Layou	It			
Environmental Impact Category	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Global warming	kg CO2 eq.	3.12E+03	5.56E+01	2.79E+02	0.00E+00	1.24E+01	0.00E+00	3.86E+00	3.47E+03	-1.37E+03
Ozone Depletion	kg CFC 11-eq.	2.15E-06	1.44E-13	1.62E-07	0.00E+00	3.24E-14	0.00E+00	2.04E-14	2.32E-06	3.73E-11
Acidification	kg SO2 eq.	8.31E+00	2.23E-01	6.82E-01	0.00E+00	3.05E-02	0.00E+00	2.41E-02	9.27E+00	-2.72E+00
Eutrophication	kg N eq.	3.48E-01	2.06E-02	4.44E-02	0.00E+00	3.38E-03	0.00E+00	1.04E-03	4.17E-01	-1.63E-01
Photochemical Ozone Creation	kg O3-Equiv.	1.01E+02	5.16E+00	8.46E+00	0.00E+00	6.96E-01	0.00E+00	4.61E-01	1.16E+02	-2.93E+01
Depletion of abiotic resources (elements)	MJ surplus energy	1.76E+03	1.04E+02	1.48E+02	0.00E+00	2.33E+01	0.00E+00	6.54E+00	2.04E+03	-1.74E+00



Environmental Product Declaration USG DONN[®] BRAND FINELINE[®] DXFEV[™] ACOUSTICAL SUSPENSION SYSTEM Westlake, OH



Increasing proper source when year year year year year year year year	Dec		e for 1 C		for of						—
Back marked procession of a non-section of the section of a section of the sectin of the section of the secti		-		•		' X 2' avo					
International participant of a large o						-		C3	C4	Total A1-C4	D
Inversence of any energy of any energy of any energyNumber of any energy o	Renewable primary resources used as an energy carrier (RPRE)										
International protocol and an amine (DPPP)91,0091,0	Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	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
Boom any material, secondary has all recovered energy Units A.VA	Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	4.90E+01	1.05E+00	3.86E+00	0.00E+00	2.53E-01	0.00E+00	7.48E-02	5.43E+01	-1.97E+01
Second scarcely measure scarce	Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	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
Namewake source by (PMP)MU, NOMU, NOM	Secondary material, secondary fuel and recovered energy	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Numension yan (noing)Num <td>Secondary material (SM)</td> <td>kg</td> <td>1.10E-03</td> <td>0.00E+00</td> <td>8.26E-05</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>1.18E-03</td> <td>0.00E+00</td>	Secondary material (SM)	kg	1.10E-03	0.00E+00	8.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-03	0.00E+00
Name Bane	Renewable secondary fuel (RSF)										
Consumption frame nearInstein1.928-011.928-011.928-010.928-01 </td <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		-									
Units Aik Aik Aik Cl Cl< Cl Cl <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
International mathemateria sectories and part of a constrain of a sectories and		1115	2.332-01	1.402-04	1.552-02	0.002400	3.43E-03	0.002400	1.032-03	2.752-01	-2.002-01
Immunit meak advantame and upskee three associaties with Support advance associaties and Support advance associaties with Support advance associaties with Support advance associaties and Support advance associaties with Support advance associaties with Support advance associaties and Support advance associaties and Support advance associaties with Support advance associaties and Support advance associaties and Support advance associaties and Support advance associaties asso											
Interview of ministry and with bigging cardine consult of holes and with bigging cardina consult	Removals and emissions associated with biogenic carbon content of the bio-based product	• •									
Emission from under use change is for 2m. 7.445 (e) 7.4											
Image in the control of a work from non-analysis work in production prevanes lq COre, 0.067-00 0.067-0 0.067-0 0.067-0											
Images to non-one-one-one-one-one-one-one-one-one-		• •									
Intraction wass singuosed No. 2.776-0 2.776-0 0.006-00 7.976-1 0.006-00 7.976-10 0.006-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 <td>Emissions from combustion of waste from non-renewable sources used in production processes</td> <td></td>	Emissions from combustion of waste from non-renewable sources used in production processes										
Intraction wass singuosed No. 2.776-0 2.776-0 0.006-00 7.976-1 0.006-00 7.976-10 0.006-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-10 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 0.976-00 7.976-01 <td></td> <td>Helte</td> <td>A4 40</td> <td></td> <td>45</td> <td>61</td> <td>62</td> <td>62</td> <td>64</td> <td>Total 11 C 1</td> <td>5</td>		Helte	A4 40		45	61	62	62	64	Total 11 C 1	5
Non-hazona vanie dispond Ng 1.3726-1 0.102-00 2.3266.0 0.276-00 <td></td>											
High-benchmark Ig 198 <	-										
Assignments of output flows at the end-of-life Units At-A3 A4 A5 C1 C2 C3 C4 Total AI-C4 D Components for n-see (CRU) hg 0.005-00 <t< td=""><td>·····</td><td></td><td>1.68E-04</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	·····		1.68E-04								
Components for neware (CRU) kg 0.00E+00	Intermediate and low-level waste	kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Components for neware (CRU) kg 0.00E+00											
Name Name Non-energy ODDE-00 O											
Namentabe primery resource (NEF) Ng 0.005-00 0.0											
Recovered energy exported (EE) MJ, NCV 0.00E+00 0.00E+00 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>											
Dann® Brand Intermediate Urie Torial State Visite	Recovered energy exported (EE)	-									
Dann® Brand Intermediate Urie Torial State Visite											
Use of mary Resources unde an energy carrier (NRPR)Nu, NCYAns.Ans.Renewale primary resources when energy carrier (NRPRE)Nu, NCYSolection <td></td>											
Renewable primary resources used as an energy carrier (RPRE) MJ, NCV 3.06E-01 3.87E-03 2.36E-01 0.36E-04 0.00E+00											-
Renewable primary resources with energy content used as material (RPRM) MJ, NCV 0.00E+00 0.00E+00 <td>-</td> <td></td>	-										
Non-renewable primary resources used as an energy carrier (NRPRE) MJ, NCV 4.55E+00 9.71E-02 3.59E-01 0.00E+00											
Secondary material, secondary fuel and recovered energy Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Secondary material (SM) kg 1.02E-04 0.00E+00	Non-renewable primary resources used as an energy carrier (NRPRE)	., .	4.55E+00				2.35E-02				
Secondary material (3M) kg 1.02E-04 0.00E+00 0.00E+00 <td>Non-renewable primary resources with energy content used as material (NRPRM)</td> <td>MJ, NCV</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td>	Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	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
Secondary material (3M) kg 1.02E-04 0.00E+00 0.00E+00 <td></td> <td>Halta</td> <td></td> <td></td> <td>45</td> <td></td> <td></td> <td></td> <td></td> <td>Trial Ad Od</td> <td></td>		Halta			45					Trial Ad Od	
Renewable secondary fuel (RSF) MJ, NCV 0.00E+00											-
Non-renewable secondary luel (NRSF) MJ, NCV 0.00E+00											
Consumption of fresh water m3 2.41E-02 1.31E-03 0.00E+00 3.21E-06 0.00E+00 1.71E-06 2.59E-02 -1.86E-02 Additional inventory parameters for transparency Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Removals and emissions associated with biogenic carbon content of the bio-based product kg C02-eq. 0.00E+00 0.00E+00 <td< td=""><td>Non-renewable secondary fuel (NRSF)</td><td>MJ, NCV</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td></td><td>0.00E+00</td><td>0.00E+00</td></td<>	Non-renewable secondary fuel (NRSF)	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Additional inventory parameters for transparency Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Removals and emissions associated with biogenic carbon content of the bio-based product kg C02-eq. 0.00E+00 0.00E	Renewable energy (RE)	MJ, NCV	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
Removals and emissions associated with biogenic carbon content of the bio-based product kg CO2-eq. 0.00E+00	Consumption of fresh water	m3	2.41E-02	1.33E-05	1.81E-03	0.00E+00	3.21E-06	0.00E+00	1.71E-06	2.59E-02	-1.86E-02
Removals and emissions associated with biogenic carbon content of the bio-based product kg CO2-eq. 0.00E+00	Additional inventory parameters for transparency	Unite	A1-A3	A4	45	C1	C2	C3	C4	Total A1-C4	D
Emission from calcination and uptake from carbonation kg CO2-eq. 0.00E+00							-		-		
Emissions from land use change kg CO2-eq. 7.28E-05 7.84E-06 6.69E-06 0.00E+00 1.90E-06 0.00E+00 1.54E-06 9.08E-05 -2.45E-05 Emissions from combustion of waste from renewable sources used in production processes kg CO2-eq. 0.00E+00 0	Emission from calcination and uptake from carbonation		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
Emissions from combustion of waste from renewable sources used in production processes kg CO2-eq. 0.00E+00	Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	-7.32E-05	0.00E+00	7.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes kg CO2-eq. 0.00E+00	Emissions from land use change	kg CO2-eq.		7.84E-06				0.00E+00			
Indicators describing waste Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Hazardous waste disposed kg 2.5E-06 2.79E-13 1.92E-07 0.00E+00 6.75E-14 0.00E+00 7.38E-13 2.74E-06 1.37E-08 Non-hazardous waste disposed kg 1.66E-05 2.78E-07 0.00E+00 6.73E-08 0.00E+00 3.47E-02 2.74E-02 2.21E-02 High-level radioactive waste kg 1.56E-05 2.78E-07 1.27E-06 0.00E+00 7.28E-08 1.37E-05 2.01E-07 Intermediate and low-level waste kg N/A	Emissions from combustion of waste from renewable sources used in production processes										
Hazardous waste disposed kg 2.55E-66 2.79E-13 1.92E-07 0.00E+00 6.75E-14 0.00E+00 7.38E-13 2.74E-06 -1.37E-08 Non-hazardous waste disposed kg 1.60E-02 8.45E-06 6.68E-03 0.00E+00 2.04E-06 0.00E+00 3.47E-02 5.74E-02 2.21E-02 High-level radioactive waste kg 1.56E-05 2.78E-07 1.27E-06 0.00E+00 6.73E-08 0.00E+00 7.28E-08 1.73E-05 2.01E-07 Intermediate and low-level waste kg N/A <	Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	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
Hazardous waste disposed kg 2.55E-0 2.79E-13 1.92E-07 0.00E+00 6.75E-14 0.00E+00 7.38E-13 2.74E-06 -1.37E-08 Non-hazardous waste disposed kg 1.60E-02 8.45E-06 6.68E-03 0.00E+00 2.04E-06 0.00E+00 3.47E-02 5.74E-02 2.21E-02 High-level radioactive waste kg 1.56E-05 2.78E-07 1.27E-06 0.00E+00 6.73E-08 0.00E+00 7.28E-08 1.73E-05 2.01E-07 Intermediate and low-level waste kg N/A N/A <t< td=""><td>Indicators describing waste</td><td>Units</td><td>A1-A3</td><td>A4</td><td>A5</td><td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>Total A1-C4</td><td>D</td></t<>	Indicators describing waste	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
High-level radioactive waste kg 1.56E-05 2.78E-07 1.27E-06 0.00E+00 6.73E-08 0.00E+00 7.28E-08 1.37E-05 2.01E-07 Intermediate and low-level waste kg N/A N/A <td< td=""><td>Hazardous waste disposed</td><td>kg</td><td>2.55E-06</td><td>2.79E-13</td><td>1.92E-07</td><td>0.00E+00</td><td>6.75E-14</td><td>0.00E+00</td><td>7.38E-13</td><td>2.74E-06</td><td>-1.37E-08</td></td<>	Hazardous waste disposed	kg	2.55E-06	2.79E-13	1.92E-07	0.00E+00	6.75E-14	0.00E+00	7.38E-13	2.74E-06	-1.37E-08
Intermediate and low-level waste kg N/A	Non-hazardous waste disposed										
Assignments of output flows at the end-of-life Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Components for re-use (CRU) kg 0.00E+00 <	High-level radioactive waste										
Components for re-use (CRU) kg 0.00E+00	Intermediate and low-level waste	kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Components for re-use (CRU) kg 0.00E+00	Assignments of output flows at the end-of-life	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Materials for energy recovery (MER) kg 0.00E+00	Components for re-use (CRU)										
	Materials for recycling (MR)	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
Recovered energy exported (EE) MJ, NCV 0.00E+00	Materials for energy recovery (MER)										
	Recovered energy exported (EE)	MJ, NCV	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



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Bander procession of anomy convergence of anomy converg							C2	C3	C4	Total A1-C4	D
Number law and prove price of a lease		1									
Number late process of an analysis	Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	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
Secondary material, secondary had in decovered energy Units Ai via Ai Ai <td>Non-renewable primary resources used as an energy carrier (NRPRE)</td> <td>MJ, NCV</td> <td>5.42E+01</td> <td>1.16E+00</td> <td>4.26E+00</td> <td>0.00E+00</td> <td>2.60E-01</td> <td>0.00E+00</td> <td>7.69E-02</td> <td>6.00E+01</td> <td>-2.02E+01</td>	Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	5.42E+01	1.16E+00	4.26E+00	0.00E+00	2.60E-01	0.00E+00	7.69E-02	6.00E+01	-2.02E+01
School spaceImage<	Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	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
School spaceImage<	Secondary material, secondary fuel and recovered energy	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
NameN							-				
nearealName <t< td=""><td>Renewable secondary fuel (RSF)</td><td></td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td></t<>	Renewable secondary fuel (RSF)		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
Consigning in the meanCased on the same and the backed part of the s	Non-renewable secondary fuel (NRSF)	MJ, NCV	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
Units A-N A A A C1 C2 C3 C4 C4 C1 C2 C3 C4 C4 C4 C1 C2 C3 C4 C4 <thc4< th=""> C4 C4 C4<</thc4<>	Renewable energy (RE)	MJ, NCV	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
Interval material material subgets cales can be based pairedIn COLIndex <th< td=""><td>Consumption of fresh water</td><td>m3</td><td>2.88E-01</td><td>1.58E-04</td><td>2.17E-02</td><td>0.00E+00</td><td>3.55E-05</td><td>0.00E+00</td><td>1.90E-05</td><td>3.10E-01</td><td>-2.06E-01</td></th<>	Consumption of fresh water	m3	2.88E-01	1.58E-04	2.17E-02	0.00E+00	3.55E-05	0.00E+00	1.90E-05	3.10E-01	-2.06E-01
International material	Additional inventory parameters for transparency	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Tennomic and ominutors association with biogonic curbs consumed in the biochead pairs of the matrix of the matr		kg CO2-eq.	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
Images from hour and change No No <t< td=""><td>Emission from calcination and uptake from carbonation</td><td>kg CO2-eq.</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td></t<>	Emission from calcination and uptake from carbonation	kg CO2-eq.	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
Image in some or non-order or over a lead of a set of a se											
Basissi from contruction drawaits from non-rener values increases. Ing. Core, a Date-rot Date-rot <thdate-rot< th=""> Date-rot Date-rot<td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thdate-rot<>											
Indicators Ni-No											
instand unsure disponedNo3.275-003.275-003.275-000.006-007.76-100.006-001.576-000.385-000.586-000.385-000.586-000.385-000.586-000.285-00 <t< td=""><td>Emissions from combustion of waste from non-renewable sources used in production processes</td><td>kg CO2-eq.</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td><td>0.00E+00</td></t<>	Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	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
Non-handbar and eligibide if algoed1926 if algoed1926 if algoed1926 if algoed2266 if algoed0.266 if algoed<	Indicators describing waste	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
jiphengines jg 1.78 4.78 7.864 0.864-07<	Hazardous waste disposed	kg	2.75E-05	3.33E-12	2.07E-06	0.00E+00	7.47E-13	0.00E+00	8.16E-12	2.96E-05	-1.51E-07
nermediae and low-low drasts hg N/A N/A<	Non-hazardous waste disposed	kg	1.92E-01	1.01E-04	7.40E-02	0.00E+00	2.26E-05		3.83E-01	6.49E-01	2.45E-01
Assignments of output flows at the end-of-life Value At-A At		kg									
Components for re-ser (CRU) kg 0.084-00	Intermediate and low-level waste	kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Components for re-ser (CRU) kg 0.084-00	Assignments of output flows at the end-of-life	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Naterials or energy recovery (NEP) ONDE-00				0.00E+00	0.00E+00				0.00E+00		0.00E+00
Recovered energy exported (EE) NJ, NCV 0.00E-00	Materials for recycling (MR)		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
Resource Usages for 1 Square Foot of Donn [®] Brand Fineline [®] Heavy Duty DXFEV [™] Grid - 2X2 Layout Units At A3 A4 A5 C C 3 C A Total A1C4 D Monovable primary resources wild as an entrary carrier (RPRE) MUNCV 3726-17 724E-02 Renevable primary resources wild as an entrary carrier (RPRE) MUNCV 3726-17 724E-02 Non-meavable primary resources wild as an entrary carrier (RPRE) MUNCV 3026-10 006E-00 006E	Materials for energy recovery (MER)	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
Dome Branch Eurie Vers Vers Vers Vers Vers Vers Vers Ver	Recovered energy exported (EE)	MJ, NCV	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
Dome Branch Eurie Vers Vers Vers Vers Vers Vers Vers Ver	Paso	Irco Head	e for 1 S		ot of						
Use of many Resources used an energy and singly an											
Renewable primary resources used as an energy carrier (RPRE)MJ, NCV0.37E-014.21E-020.00E+000.00E+0							C2	C3	C4	Total A1-C4	D
Non-renewable primary resources used as an energy carrier (NRPRE) MJ, NCV 5.04E-00 0.00E-00	-	MJ, NCV		4.29E-03	2.64E-02	0.00E+00	9.61E-04	0.00E+00	9.61E-04	3.70E-01	7.42E-02
Non-renewable primary resources with energy content used as material (NRPRM) MJ, NCV 0.00E+00 0.0	Renewable primary resources with energy content used as material (RPRM)	MJ, NCV	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
Secondary material, secondary fuel and recovered energy Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Secondary material (SM) kg 4.06E-40 0.00E+00	Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	5.04E+00	1.08E-01	3.96E-01	0.00E+00	2.41E-02	0.00E+00	7.14E-03	5.57E+00	-1.88E+00
Secondary material (SM) Auge M Auge M Auge M Bus M Concernol Sub Fuel M Sub Fuel M </td <td>Non-renewable primary resources with energy content used as material (NRPRM)</td> <td>MJ, NCV</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td>	Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	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
Secondary material (SM) Auge M Auge M Auge M Bus M Concernol Sub Fuel M Sub Fuel M </td <td>Secondary material secondary fuel and recovered energy</td> <td>Units</td> <td>Δ1-Δ3</td> <td>۵4</td> <td>45</td> <td>C1</td> <td>C2</td> <td>C3</td> <td>C4</td> <td>Total A1-C4</td> <td>D</td>	Secondary material secondary fuel and recovered energy	Units	Δ1-Δ3	۵4	45	C1	C2	C3	C4	Total A1-C4	D
Renewable secondary fuel (RSF) MJ, NCV 0.00E+00			-			-	-				
Renewable energy (RE) MJ, NCV 0.00E+00 0.00E+00<	Renewable secondary fuel (RSF)		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
Additional fresh water m3 2.88-02 1.47E-05 2.02E-03 0.00E+00 3.30E-06 0.00E+00 1.76E-06 2.88E-02 1.91E-02 Additional inventory parameters for transparency Units A1-A3 A4 A5 C4 C0al AT-C4 D Removals and emissions associated with biogenic carbon content of the bio-based product kg C02-eq. 0.00E+00	Non-renewable secondary fuel (NRSF)	MJ, NCV	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
Additional inventory parameters for masparency Units A1-33 A4 A5 C1 C2 C3 C4 Total A1-C4 D Additional inventory parameters for massion associated with biogenic carbon content of the bio-based product kg C02-eq. 0.00E+00 0.00E+00 <td>Renewable energy (RE)</td> <td>MJ, NCV</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td> <td>0.00E+00</td>	Renewable energy (RE)	MJ, NCV	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
Removals and emissions associated with biogenic carbon content of the bio-based productkg CO2-eq0.00E+00 <td>Consumption of fresh water</td> <td>m3</td> <td>2.68E-02</td> <td>1.47E-05</td> <td>2.02E-03</td> <td>0.00E+00</td> <td>3.30E-06</td> <td>0.00E+00</td> <td>1.76E-06</td> <td>2.88E-02</td> <td>-1.91E-02</td>	Consumption of fresh water	m3	2.68E-02	1.47E-05	2.02E-03	0.00E+00	3.30E-06	0.00E+00	1.76E-06	2.88E-02	-1.91E-02
Removals and emissions associated with biogenic carbon content of the bio-based productkg CO2-eq0.00E+00 <td>Additional inventory parameters for transparency</td> <td>Units</td> <td>A1-A3</td> <td>A4</td> <td>A5</td> <td>C1</td> <td>C2</td> <td>C3</td> <td>C4</td> <td>Total A1-C4</td> <td>D</td>	Additional inventory parameters for transparency	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Removals and emissions associated with biogenic carbon content of the bio-based packaging is CO2-eq. 7.32E-05 0.00E+00 7.32E-05 0.00E+00 0.00E+0		1									
Emissions from land use change kg C02-eq. 8.04E-05 8.68E-06 7.33E-06 0.00E+00 1.95E-06 0.00E+00 1.58E-06 9.99E-05 2.52E-05 Emissions from combustion of waste from renewable sources used in production processes kg C02-eq. 0.00E+00 0.	Emission from calcination and uptake from carbonation	kg CO2-eq.	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
Emissions from combustion of waste from renewable sources used in production processes kg CO2-eq. 0.00E+00	Removals and emissions associated with biogenic carbon content of the bio-based packaging	-		0.00E+00	7.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
Emissions from combustion of waste from non-renewable sources used in production processes kg C02-eq. 0.00E+00											
Indicators describing waste Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Hazardous waste disposed kg 2.56E-06 3.10E-13 1.92E-07 0.00E+00 6.94E-14 0.00E+00 7.58E-13 2.75B-06 1.41E-08 Hajardous waste disposed kg 1.78E-02 9.37E-06 6.87E-03 0.00E+00 6.94E-14 0.00E+00 3.56E-02 3.56E-02 2.26B-02 1.35E-06 0.00E+00 6.92E-08 0.00E+00 7.48E-08 2.26B-02 2.06E-07 1.35E-06 0.00E+00 6.92E-08 0.00E+00 7.48E-08 1.84E-05 2.06E-07 Intermediate and low-level waste kg 1.66E-05 3.09E-07 1.35E-06 0.00E+00 6.92E-08 0.00E+00 7.48E-08 1.84E-05 2.06E-07 Intermediate and low-level waste kg N/A N											
Hazardous waste disposed kg 2.56E-06 3.10E-13 1.92E-07 0.00E+00 6.94E-14 0.00E+00 7.58E-13 2.75E-06 1.41E-08 Non-hazardous waste disposed kg 1.78E-02 9.37E-06 6.87E-03 0.00E+00 2.10E-06 0.00E+00 3.56E-02 6.03E-02 2.28E-02 High-level radioactive waste kg 1.66E-05 3.09E-07 1.35E-06 0.00E+00 6.92E-08 0.00E+00 7.48E-08 1.84E-05 2.06E-07 Intermediate and low-level waste kg N/A	Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	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
Hazardous waste disposed kg 2.56E-06 3.10E-13 1.92E-07 0.00E+00 6.94E-14 0.00E+00 7.58E-13 2.75E-06 4.14E-08 Non-hazardous waste disposed kg 1.78E-02 9.37E-06 6.87E-03 0.00E+00 2.10E-06 0.00E+00 3.56E-02 6.03E-02 2.28E-02 High-level radioactive waste kg 1.66E-05 3.09E-07 1.3EE-06 6.00E+00 6.92E-08 0.00E+00 7.48E-08 1.48E-05 2.06E-07 Intermodate and lovelevel waste kg 1.66E-05 3.09E-07 1.3EE-06 6.00E+00 6.92E-08 0.00E+00 7.48E-08 1.48E-05 2.06E-07 Asignments of output flows at the end-of-life Vints Al-A3 Al NA N/A N/A </td <td>Indicators describing waste</td> <td>Units</td> <td>A1-A3</td> <td>A4</td> <td>A5</td> <td>C1</td> <td>C2</td> <td>C3</td> <td>C4</td> <td>Total A1-C4</td> <td>D</td>	Indicators describing waste	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
High-level radioactive waste kg 1.66-05 3.09E-07 1.35E-06 0.00E+00 6.92E-08 0.00E+00 7.48E-08 1.48E-05 2.06E-07 Intermediate and low-level waste kg N/A			2.56E-06	3.10E-13	1.92E-07	0.00E+00	6.94E-14	0.00E+00	7.58E-13	2.75E-06	-1.41E-08
Intermediate and low-level waste kg N/A	· ·	kg									
Assignments of output flows at the end-of-life Units A1-A3 A4 A5 C1 C2 C3 C4 Total A1-C4 D Components for re-use (CRU) kg 0.00E+00 <											
Components for re-use (CRU) kg 0.00E+00	Intermediate and low-level waste	kg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Components for re-use (CRU) kg 0.00E+00	Assignments of output flows at the end-of-life	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Materials for recycling (MR) kg 0.00E+00 0.00E+0					-	-	-		-		
Materials for energy recovery (MER) kg 0.00E+00											
Recovered energy exported (EE) MJ, NCV 0.00E+00	Materials for energy recovery (MER)		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
	Recovered energy exported (EE)	MJ, NCV	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



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Use of Primary Resources	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D 5.42E+02
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM)	MJ, NCV MJ, NCV	2.30E+03 0.00E+00	2.90E+01 0.00E+00	1.80E+02 0.00E+00	0.00E+00 0.00E+00	7.03E+00 0.00E+00	0.00E+00 0.00E+00	7.02E+00 0.00E+00	2.52E+03 0.00E+00	5.42E+02 0.00E+00
Non-renewable primary resources used as an energy carrier (NRPRE)	MJ, NCV	3.42E+04	7.29E+02	2.69E+03	0.00E+00	1.76E+02	0.00E+00	5.22E+01	3.78E+04	-1.37E+04
Non-renewable primary resources with energy content used as material (NRPRM)	MJ, NCV	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
Secondary material, secondary fuel and recovered energy	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Secondary material (SM)	kg	7.66E-01	0.00E+00	5.76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.23E-01	0.00E+00
Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF)	MJ, NCV MJ, NCV	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
Renewable energy (RE)	MJ, NCV	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
Consumption of fresh water	m3	1.81E+02	9.96E-02	1.36E+01	0.00E+00	2.41E-02	0.00E+00	1.29E-02	1.94E+02	-1.40E+02
Additional inventory parameters for transparency	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Removals and emissions associated with biogenic carbon content of the bio-based product	kg CO2-eq.	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
Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging	kg CO2-eq.	0.00E+00 -5.49E-01	0.00E+00 0.00E+00	0.00E+00 5.49E-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
Emissions from land use change	kg CO2-eq. kg CO2-eq.	-5.49E-01 5.47E-01	5.89E-02	5.02E-01	0.00E+00	1.42E-02	0.00E+00	1.16E-02	6.82E-01	-1.84E-01
Emissions from rand use change Emissions from combustion of waste from renewable sources used in production processes	kg CO2-eq. kg CO2-eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.84E-01 0.00E+00
Emissions from combustion of waste from non-renewable sources used in production processes	kg CO2-eq.	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
Indicators describing waste	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Hazardous waste disposed	kg	1.92E-02	2.10E-09	1.44E-03	0.00E+00	5.07E-10	0.00E+00	5.54E-09	2.06E-02	-1.03E-04
Non-hazardous waste disposed High-level radioactive waste	kg kg	1.20E+02 1.17E-01	6.34E-02 2.09E-03	5.02E+01 9.54E-03	0.00E+00 0.00E+00	1.53E-02 5.06E-04	0.00E+00 0.00E+00	2.60E+02 5.47E-04	4.31E+02 1.30E-01	1.66E+02 1.51E-03
Intermediate and low-level waste	kg kg	N/A	2.09E-03	9.54E-03 N/A	0.00E+00	5.06E-04	0.00E+00	5.47E-04	N/A	N/A
	ĸġ	17/4	10/4	17/4	11/2	1975	10/4	inva	19/6	N/A
Assignments of output flows at the end-of-life	Units	A1-A3	A4	A5	C1	C2	C3	C4	Total A1-C4	D
Components for re-use (CRU)	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
Materials for recycling (MR)	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
Materials for energy recovery (MER)	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
Recovered energy exported (EE)	MJ, NCV	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
Beso	urce Usag	les for 1 l	Metric To	n of						
Donn [®] Brand Finel	-									
			(FEV™ G	rid - 2'X2	' Lavout					
USE VITIMAL V NESULICES	Units	A1-A3	(FEV™ G	rid - 2'X2	Layout	C2	C3	C4	Total A1-C4	D
Use of Primary Resources Renewable primary resources used as an energy carrier (RPRE)					· · ·	C2 7.03E+00	C3 0.00E+00	C4 7.02E+00	Total A1-C4 2.70E+03	D 5.42E+02
-	Units	A1-A3	A4	A5	C1					
Renewable primary resources used as an energy carrier (RPRE)	Units MJ, NCV	A1-A3 2.46E+03	A4 3.13E+01	A5 1.93E+02	C1 0.00E+00	7.03E+00	0.00E+00	7.02E+00	2.70E+03	5.42E+02
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM)	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00	A4 3.13E+01 0.00E+00	A5 1.93E+02 0.00E+00	C1 0.00E+00 0.00E+00	7.03E+00 0.00E+00	0.00E+00 0.00E+00	7.02E+00 0.00E+00	2.70E+03 0.00E+00	5.42E+02 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM)	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units	A1-A3 2.46E+03 0.00E+00 3.68E+04	A4 3.13E+01 0.00E+00 7.87E+02	A5 1.93E+02 0.00E+00 2.89E+03	C1 0.00E+00 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02	0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4	5.42E+02 0.00E+00 -1.37E+04
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM)	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2	0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4	2.70E+03 0.00E+00 4.07E+04 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 D
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM)	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 C3 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 D 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF)	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 C3 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 D 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF)	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2 0.00E+00 0.00E+00 0.00E+00	0.00E+00 0.00E+00 0.00E+00 0.00E+00 C3 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 D 0.00E+00 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV MJ, NCV MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 0.00E+00 1.47E+01	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 2.41E-02	0.00E+00 0.00E+00 0.00E+00 0.00E+00 C3 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 2.10E+02	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.40E+02
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV MJ, NCV MJ, NCV m3 Units	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00 0.00E+02 1.96E+02 A1-A3	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 0.00E+01 1.47E+01 A5	C1 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 C1	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2 0.00E+00 0.00E+00 0.00E+00 2.41E-02 C2	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	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00 0.00E+00 0.00E+00 1.29E-02 C4	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 2.10E+02 Total A1-C4	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV MJ, NCV MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 0.00E+00 1.47E+01	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 2.41E-02	0.00E+00 0.00E+00 0.00E+00 0.00E+00 C3 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 2.10E+02	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.40E+02 D
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Renovals and emissions associated with biogenic carbon content of the bio-based product	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV MJ, NCV MJ, NCV MJ, NCV m3 Units kg CO2-eq.	A1-A3 2.46E+03 0.00E+00 3.88E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00 0.00E+02 A1-A3 0.00E+02	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00	C1 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 C1 0.00E+00	7.03E+00 0.00E+00 1.76E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 2.41E+02 C2 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 C3 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.29E-02 C4 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 2.10E+02 Total A1-C4 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.40E+02 D 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Secondary material, secondary fuel and recovered energy Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00 0.00E+00 0.00E+01 1.96E+02 A1-A3 0.00E+00 0.00E+00 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4 0.00E+00 0.00E+00 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00 0.00E+00	C1 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	7.03E+00 0.00E+00 1.76E+02 0.00E+00 C2 0.00E+00 0.00E+00 0.00E+00 0.00E+00 2.41E+02 C2 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	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00 0.00E+00 0.00E+00 1.29E+02 C4 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 0.00E+00 2.10E+02 Total A1-C4 0.00E+00 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.40E+02 0.00E+00 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging	Units MJ, NCV M	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+00 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4 0.00E+00 0.00E+00 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 5.35E-01	C1 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	7.03E+00 0.00E+00 1.76E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+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	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.40E+02 D 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based packaging Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emission from land use change	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+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 5.35E-01 5.87E-01	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 5.35E-01 5.35E-02	C1 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	7.03E+00 0.00E+00 1.76E+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 1.42E+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	7.02E+00 0.00E+00 5.22E+01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.29E-02 C4 0.00E+00 0.00E+00 0.00E+00 1.16E-02	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 7.30E-01	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.40E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 -1.84E-01
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable secondary fuel (NRSF) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from land use change Emissions from combustion of waste from renewable sources used in production processes	Units MJ, NCV M	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 A1-A3 2.92E+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 5.35E-01 5.37E-01 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+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	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.20E-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 5.35E-01 5.35E-01 5.35E-02 0.00E+00	C1 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	7.03E+00 0.00E+00 1.76E+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 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	7.02E+00 0.00E+00 5.22E+01 0.00E+00 C4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.16E-02 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+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	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 -0.00E+00 -1.40E+02 0.00E+00 0.00E+00 -1.84E-01 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from land use change Emissions from combustion of waste from renewable sources used in production processes	Units MJ, NCV MG 202-eq. kg C02-eq.	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+02 A1-A3 0.00E+00 0.00E+00 5.35E+01 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+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 6.35E-02 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 A5 2.02E+01 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00 0.00E+00 5.35E+02 0.35E+02 0.00E+00	C1 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	7.03E+00 0.00E+00 1.76E+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 1.42E-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 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.29E-02 C4 0.00E+00 0.00E+00 0.00E+00 1.16E-02 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 3.14E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 7.30E-01 0.00E+00	5.42E+02 0.00E+00 -1.37E+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 -1.44E-01 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable secondary fuel (NRSF) Renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste	Units MJ, NCV M	A1-A3 2.46E+03 0.00E+00 3.58E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 00	A5 1.33E+02 0.00E+00 2.89E+03 0.00E+00 00	C1 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	7.03E+00 0.00E+00 1.76E+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 1.42E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.22E-02 C4 0.00E+00 0.00E+00 0.00E+00 1.16E-02 0.00E+00 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+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 A1-C4	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NRPRM) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (RSF) Non-renewable secondary fuel (RSF) Renewable secondary fuel (RSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion for aster from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion for aster from non-renewable sources used in production processes	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+02 A1-A3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.87E-01	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E-01 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 A4 2.26E-09	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00	C1 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	7.03E+00 0.00E+00 1.76E+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 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	7.02E+00 0.00E+00 5.22E+01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.29E-02 C4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 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 7.30E-01 0.00E+00 7.30E-01	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (RSF) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste Hazardous waste disposed Non-hazardous waste disposed	Units MJ, NCV MJ, NCV MJ, NCV MJ, NCV Units Kg MJ, NCV Kg C02-eq.	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 2.92E+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 1.87E-02 1.30E+02	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 6.35E+02 6.85E-02	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00 0.00E+00 5.35E-01 5.35E-02 5.35E+02	C1 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	7.03E+00 0.00E+00 1.76E+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 1.42E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.42E+02 0.00E+00 1.53E+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 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+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 1.16E-02 0.00E+00 0.00E+00 0.00E+00 2.54E-09 2.60E+02	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 3.14E+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 7.30E-01 0.00E+00 7.30E-01 0.00E+000E+0	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.34E-01 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources used as an energy carrier (NRPRE) Non-renewable primary resources with energy content used as material (NRPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from renewable sources used in production processes Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste Hazardous waste disposed High-level radioactive waste Intermediate and low-level waste	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.58E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02 A1-A3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.5.35E-01 0.00E+00 0.00E+00 1.37E-02 1.37E-02 1.32E+02 1.21E-01 N/A	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 0.	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00	C1 0.00E+00	7.03E+00 0.00E+00 1.76E+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 1.42E+02 0.00E+00 0.00E+00 1.53E+02 5.07E+10 1.53E+02 5.06E+04 N/A	0.00E+00 0.00E+000E+0	7.02E+00 0.00E+00 5.22E+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 5.54E-09 2.60E+02 5.47E-04 N/A	2.70E+03 0.00E+00 4.07E+04 0.00E+00 Total A1-C4 3.14E+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 1.00E+00 0.00E+00 1.00E+00 1.00E+00 0.00E+00 0.00E+00 1.00E+00 0.00E+0000000000	5.42E+02 0.00E+00 -1.37E+04 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.40E+02 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.34E-01 0.00E+00 0.00E+00 1.34E-01 0.00E+00 1.51E-03 N/A
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emission from combustion of waste from non-renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Imposed Non-hazardous waste disposed Non-hazardous waste disposed Non-hazardous waste Assignments of output flows at the end-of-life	Units MJ, NCV MJ, NCV MJ, NCV Units kg MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 2.92E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02 A1-A3 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 A1-A3 1.87E-02 1.30E+02 1.21E-01 N/A A1-A3	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.07E+01 A4 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 A4 2.26E-09 6.85E-02 2.26E-03 N/A	A5 1.93E-02 0.00E+00 2.89E+03 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.47E+01 A5 0.00E+00	C1 0.00E+00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E	7.03E+00 0.00E+00 1.76E+02 0.00E+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+00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+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 0.00E+00 5.54E-09 2.60E+02 5.54E-09 2.60E+02	2.70E+03 0.00E+00 4.07E+04 0.00E+00 7otal A1-C4 3.14E+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 7.73Be-01 0.00E+0000000000	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.134E-01 0.00E+00 1.134E-01 1.51E-03 N/A
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Secondary material, secondary fuel and recovered energy Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (RSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based packaging Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste Hazardous waste disposed Non-hazardous waste disposed Non-hazardous waste disposed High-level radioactive waste Intermediate and low-level waste Components for re-use (CRU)	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 2.92E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02 A1-A3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+01 1.387E-02 1.30E+02 1.30E+02	A4 3.13E-01 0.00E+00 7.87E+02 0.00E+00 6.85E-02 2.26E-03 N/A A4 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 2.20E-01 0.00E+00 A5 1.41E-03 5.02E+01 9.83E-03 N/A A5 0.00E+00	C1 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 N/A	7.03E+00 0.00E+00 1.76E+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 1.53E+02 5.06E+04 N/A	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 N/A	7.02E+00 0.00E+00 5.22E+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 2.60E+02 5.54E-09 2.60E+02 5.47E-04 N/A	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 3.14E+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 7.01al A1-C4 0.00E+00	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 1.1.3E-04 1.66E+02 1.51E-03 N/A 0.00E+00
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (NPRM) Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based product Emission from calcination and uptake from renewable sources used in production processes Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste Hazardous waste disposed Non-hazardous waste disposed High-level radioactive waste Intermediate and low-level waste Assignments of output flows at the end-of-life Components for re-use (CRU) Materials for recycling (MR)	Units MJ, NCV R	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 2.92E+00 0.00E+00 1.37E-02 1.30E+02 1.21E-01 N/A A1-A3 0.00E+00	A4 3.13E+01 0.00E+00 7.87E+02 0.00E+00 A4 2.26E-03 N/A A4 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 2.00E+00 0.00E+00 0.00E+01 9.83E-03 N/A A5 0.00E+00 0.00E+00	C1 0.00E+00	7.03E+00 0.00E+00 1.76E+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 1.53E+02 1.55E+02 1.53E+02 1.5	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 N/A C3 0.00E+00 0.00E+00	7.02E+00 0.00E+00 5.22E+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 C4 5.54E-09 2.60E+02 5.47E-04 N/A C4 0.00E+00 0.00E+00	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 3.14E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 7.30E-01 0.00E+00 7.30E-01 7.01al A1-C4 2.01E-02 1.34E-01 N/A Total A1-C4 0.00E+00 0.00E+00	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 1.51E+03 N/A
Renewable primary resources used as an energy carrier (RPRE) Renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Non-renewable primary resources with energy content used as material (RPRM) Secondary material, secondary fuel and recovered energy Secondary material, secondary fuel and recovered energy Secondary material, secondary fuel and recovered energy Secondary material (SM) Renewable secondary fuel (RSF) Non-renewable secondary fuel (NRSF) Renewable energy (RE) Consumption of fresh water Additional inventory parameters for transparency Removals and emissions associated with biogenic carbon content of the bio-based packaging Emission from calcination and uptake from carbonation Removals and emissions associated with biogenic carbon content of the bio-based packaging Emissions from combustion of waste from renewable sources used in production processes Emissions from combustion of waste from non-renewable sources used in production processes Indicators describing waste Hazardous waste disposed Non-hazardous waste disposed Non-hazardous waste disposed High-level radioactive waste Intermediate and low-level waste	Units MJ, NCV MJ, NCV	A1-A3 2.46E+03 0.00E+00 3.68E+04 0.00E+00 2.92E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 1.96E+02 A1-A3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+01 1.387E-02 1.30E+02 1.21E-01 N/A A1-A3 0.00E+00	A4 3.13E-01 0.00E+00 7.87E+02 0.00E+00 6.85E-02 2.26E-03 N/A A4 0.00E+00	A5 1.93E+02 0.00E+00 2.89E+03 0.00E+00 2.20E-01 0.00E+00 A5 1.41E-03 5.02E+01 9.83E-03 N/A A5 0.00E+00	C1 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 N/A	7.03E+00 0.00E+00 1.76E+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 1.53E+02 5.06E+04 N/A	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 N/A	7.02E+00 0.00E+00 5.22E+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 2.60E+02 5.54E-09 2.60E+02 5.47E-04 N/A	2.70E+03 0.00E+00 4.07E+04 0.00E+00 70tal A1-C4 3.14E+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 7.01al A1-C4 0.00E+00	5.42E+02 0.00E+00 -1.37E+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 0.00E+00 0.00E+00 0.00E+00 1.1.3E-04 1.51E-03 N/ N/ 0.00E+00



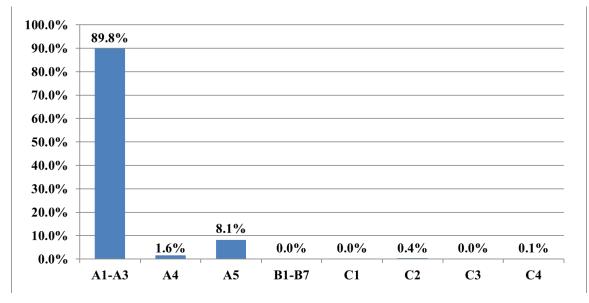


Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building or construction works has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase only when product or construction works performance and specifications have been established and serve as a functional unit for comparison. Environmental impact results shall be converted to a functional unit basis before any comparison is attempted. Any comparison of EPDs shall be subject to the requirements of ISO 21930 or EN 15804. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries, are based on different product category rules or. are missing relevant environmental impacts. Such comparisons can be inaccurate and could lead to erroneous selection of materials or products that are higher impact, at least in some impact categories.

5. LCA Interpretation

The A1-C4 LCA results for the USG[™] Donn[®] Brand Intermediate Duty Fineline[®] DXFEV[™] Acoustical Suspension System were dominated by product manufacturing; specifically the production of the steel coil.









6. References

LCA Report

A Cradle-to-Gate and Cradle-to-Grave Life Cycle Assessment of USG Suspension System Products, 2/5/24. USG (Confidential)

Product PCR

PCR for Building-Related Products and Services - Part A: Calculation Rules for the LCA and Requirements Project Report, (IBU/UL Environment document number 10010, revision V3.2, December 2018)

UL Environment: Product Category Rules for Building-Related Products and Services Part B: Metal Ceiling and Wall System EPD Requirements, January 15, 2020

Sustainability Reporting Standards

EN 15804:2012-04 - Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction product

ISO 14025:2006 - Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040:2006/Amended 1:2020 - Environmental management – Life cycle assessment – Principles and framework

ISO 14044:2006/amended 2: 2020 - Environmental management – Life cycle assessment – Requirements and guidelines

ISO 14046:2013 - Environmental management- Water footprint- Principles, requirements and guidelines

ISO 15392:2008 - Sustainability in building construction- General principles

ISO 15686-1:2011 - Buildings and constructed assets- Service life planning- Part 1: General principles

ISO 15686-2:2008 - Buildings and constructed assets- Service life planning Part 2: Service life prediction procedures

ISO 15686-7:2008 - Buildings and constructed assets- Service life planning Part 7: Performance evaluation for feedback of service life data from practice

ISO 15686-8:2008 - Buildings and constructed assets- Service life planning Part 8: Reference service life and service life estimation

ISO 21930:2017 - Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services

