



SoftScreen[®], Soft Sound[®] Tiles

PET Interior Wall Panels

Environmental Product Declaration

Date of Issue: 10/1/2023

Date of Expiration: 10/1/2028

PRODUCT CATEGORY RULE

UL Part A: Life Cycle Assessment Calculation Rules and Report Requirements, UL 10010, V3.2

UL Part B: Non-Metal Ceiling and Interior Wall Panel System EPD Requirements, V2.0

DECLARED UNIT

1 ft² panel

Program Operator	ASTM International 100 Barr Harbor Dr., West Conshohocken, PA 19428 cert@astm.org
General Program Instructions and Version Number	ASTM Program Operator Rules. Version: 8.0, Revised 04/29/20
Manufacturer Name and Address	Arktura LLC 18225 South Figueroa Street, Los Angeles, CA 90248 info@arktura.com
Declaration Number	ASTM-EPD578
Declared Product and Functional Unit	PET Interior Wall Panels Declared Unit: 0.093 m ² (1 ft ²) of panel (alternative unit of 1 m ² also declared)
Reference PCR and Version Number	ISO 21930:2017 UL Part A: Part A: Life Cycle Assessment Calculation Rules and Report Requirements, UL 10010, V3.2 (Dec 12 2018); UL Part B: Non-Metal Ceiling and Interior Wall Panel System EPD Requirements, v2.0 (Oct 23 2018)
Product's intended Application and Use	Commercial
Intended Audience	Business-to-Business
Product RSL	n/a
Markets of Applicability	North America
Date of Issue	10/1/2023
Period of Validity	5 years from date of issue
EPD Type	Manufacturer Specific
EPD Scope	Cradle-to-Gate (A1 to A3 modules)
Year of reported manufacturer primary data	2021
LCA Software and Version Number	GaBi 10.7
LCI Database and Version Number	GaBi Database 2022.2
LCIA Methodology and Version Number	TRACI 2.1 + IPCC AR5
LCIA Results Overview per 1 ft² (A1 to A3 modules)	
	SoftScreen [®] and Soft Sound [®] Tiles
GWP [kg CO₂ eq]	1.78
ODP [kg CFC 11 eq]	6.51E-13
AP [kg SO₂ eq]	4.63E-03
EP [kg N eq]	5.33E-04
SFP [kg O₃ eq]	7.02E-02
FFD [MJ]	2.87E+00
The sub-category PCR review was conducted by:	Dr. Lindita Bushi Dr. Tom Gloria Olivia Palmer
Independent verification of the declaration and data, according to ISO 21930:2017, UL Part A, ISO 14025:2006, and UL Part B sub-category.	
<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External	Tim Brooke, ASTM International
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	WAP Sustainability Consulting
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Lindita Bushi, Ph.D., Athena Sustainable Materials Institute
Limitations: <ul style="list-style-type: none"> • Environmental declarations from different programs (ISO 14025) may not be comparable. • Comparison of the environmental performance of Non-Metal Ceiling and Wall System Products using EPD information shall be based on the product's use and impacts at the building level, and therefore EPDs may not be used for comparability purposes when not considering the building energy use phase as instructed under this PCR. • Full conformance with this PCR allows EPD comparability only 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 results for upstream or downstream of the life cycle stages declared. 	

General Information

Company Description

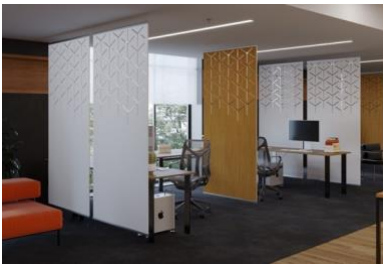
At Arktura, we make design happen. For over a decade, Arktura has been at the forefront of architectural design and fabrication, delivering groundbreaking, award-winning products and custom projects, working in collaboration with architects and interior designers around the world.

Our architectural systems are devised with flexibility in mind, combining powerful design variables that allow each product to be tailored to a wide range of environments. Our growing line of offerings, including acoustic solutions, ceiling clouds and baffles, interior and exterior panel systems, and building façades set new standards across the A+D community in terms of design aesthetic, adaptability and product quality.

Each of our standardized products is an easy-to-use, highly flexible “tool set.” From overall configuration right down to attachment points, perforations, patterns, and finishes, the variables designed into each core product set can be adjusted to meet your requirements. Explore our products library to see the results—visual impact, simple refinement, and ease of installation.

All products are manufactured at Arktura’s Los Angeles factory.

Product Descriptions



SoftScreen® acoustic wall panels from Arktura make it easy to dramatically define spaces and aesthetics while reducing the impact of noise, at any scale. Made from our high performance sound attenuating Soft Sound® material, SoftScreen® panels are available in a variety of patterns and colors, including wood textures, all able to be mixed and matched as desired. Choose from a number of install options, including direct mount, cable suspension, or sliding with our track and trolley system. Whatever your needs, SoftScreen® elegantly enhances spaces and establishes privacy with ease.

CSI 09 51 00, 09 54 00, 09 70 00, 09 78 00; UNSPSC 30161602

Soft Sound® Tiles are the perfect building blocks to easily and affordably enhance aesthetics and acoustic performance across interior space. Made from Arktura's Soft Sound® Acoustical material, Soft Sound® Tiles can be simply adhered to wall surfaces to absorb sound while creating limitless design opportunities. Mix and match its five standard sizes and dozens of color options, including wood textures, to create the best design for your project. Tiles can also be field trimmed to effortlessly adapt to surrounding building conditions and create endless possibilities.

CSI 09 51 00, 09 54 00, 09 70 00, 09 78 00; UNSPSC 30161602



Product Average

Product averages were developed to encompass all products that fall within +/-10% for all environmental impact indicators, excluding ODP. This was done by first grouping based on the mass of raw material and packaging, evaluated for each material. Further refinement was done by running LCA results for each first round grouping and combining results that were similar.

Table 1: Product groupings

Results Group	Product
SoftScreen® and Soft Sound® Tiles	SoftScreen® Alcazar
	SoftScreen® Cora
	SoftScreen® Glimmer
	SoftScreen® Groove Angled
	SoftScreen® Groove Straight
	SoftScreen® Slant
	SoftScreen® Stack
	SoftScreen® Trace
	Soft Sound® Tiles
SoftScreen® Cable Hung	
SoftScreen® Bracket Mount	
SoftScreen® 4' Edge Guard Kit	
SoftScreen® 8' Edge Guard Kit	
SoftScreen® Sliding Track	

Product Composition

No substances required to be reported, per RCRA, Subtitle 3, as hazardous are associated with the production of this product.

Table 2: Product compositions

Mass %	PET (Soft Sound®)	Aluminum	Steel	Brass	Other
<i>Recycled Content</i>	60%	25%	23%	-	-
SoftScreen® and Soft Sound® Tiles	100.0%	-	-	-	-
SoftScreen® Cable Hung	-	97.9%	2.0%	-	0.1%
SoftScreen® Bracket Mount	-	98.9%	1.0%	-	0.1%
SoftScreen® 4' Edge Guard Kit	-	88.1%	11.9%	-	-
SoftScreen® 8' Edge Guard Kit	-	88.1%	6.8%	5.0%	-
SoftScreen® Sliding Track	-	98.1%	1.9%	-	-

Technical Requirements

Table 3: Technical requirements

Name and Standard		SoftScreen® and Soft Sound® Tiles
Sound absorption coefficient (ASTM C423)		.25-.4
Surface burning characteristics of building materials (ASTM E84)	Class	Class A
	Wall	X
	Ceiling	X

LCA Methodology

Declared Unit

Table 4: Declared unit details

	Weight [kg/1 ft ²]	Weight [kg/m ²]	Weight [lbs/ft ²]	Thickness [in] Average [Range]	Thickness [cm] Average [Range]
SoftScreen® and Soft Sound® Tiles	0.242	2.61	0.534	1.27	0.5
SoftScreen® 4' Edge Guard Kit	0.00676	0.0728	0.0149	n/a	n/a
SoftScreen® 8' Edge Guard Kit	0.0268	0.288	0.0591	n/a	n/a
SoftScreen® Bracket Mount	0.00286	0.031	0.00630	n/a	n/a
SoftScreen® Cable Hung	0.0421	0.454	0.0929	n/a	n/a
SoftScreen® Sliding Track	0.0932	1.00	0.205	n/a	n/a

System Boundary

Table 5. Description of the system boundary modules

Production			Construction		Use							End of Life				Benefits & Loads Beyond System Boundary
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw Material Supply	Transport	Manufacturing	Transport to Site	Assembly/Install	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Deconstruction	Transport	Waste Processing	Disposal	Reuse, Recovery, Recycling Potential
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

*MND = not declared

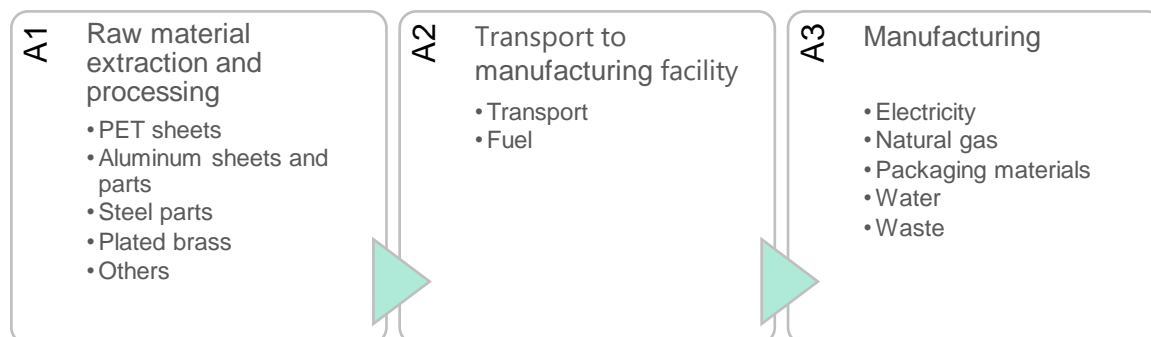


Figure 1: System boundary diagram

Note that hanger wires, molding, and/or attachment/hold down clips are excluded from the system boundary.

Allocation

General principles of allocation were based on ISO 14040/44. To derive a per-unit value for manufacturing inputs such as electricity, thermal energy and water, allocation based on total production by area was adopted, as this is the basis on which products are processed and sold, regardless of product weight. As a default, secondary GaBi datasets use a physical basis for allocation.

Cut-off Rules

Material inputs greater than 1% (based on total mass of the final product) were included within the scope of analysis. Material inputs less than 1% were included if sufficient data was available to warrant inclusion and/or the material input was thought to have significant environmental impact. Cumulative excluded material inputs and environmental impacts are less than 5% based on total weight of the functional unit. No known flows are deliberately excluded from this EPD.

Period Under Review

Data were obtained from Arktura for calendar year 2021.

Technical Information and Scenarios

Manufacturing

Arktura’s PET-based ceiling and wall panels are manufactured primarily from 60% recycled PET (Polyethylene) acoustical boards. PET sheets are cut to shape, labeled, and combined with any necessary structural or framing components. The products are packaged and then shipped and installed.

Packaging

Packaging requirements are presented in Table 5, per functional unit.

Table 6: Packaging per 1 ft²

kg/1 ft ²	Packaging Plywood	Packaging Lumber	Packaging Cardboard	Packaging LDPE Film	Packaging Polystyrene	Packaging LDPE Foam
SoftScreen® and Soft Sound® Tiles	4.78E-02	2.60E-02			1.15E-03	2.08E-05
SoftScreen® 4' Edge Guard Kit			1.01E-02	1.47E-03		
SoftScreen® 8' Edge Guard Kit			1.01E-02	1.47E-03		
SoftScreen® Bracket Mount			1.01E-02	3.12E-04		
SoftScreen® Cable Hung			1.01E-02	1.47E-03		
SoftScreen® Sliding Track			1.01E-02	1.47E-03		

Results

Environmental impacts were calculated using the GaBi software platform. Impact results have been calculated using IPCC AR5 and TRACI 2.1 characterization factors. Results presented in this report are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

Acronym [Unit]	Environmental Indicators	Methodology
GWP [kg CO ₂ eq]	Global Warming Potential, excl biogenic carbon	IPCC AR5
ODP [kg CFC-11 eq]	Ozone Depletion Air	TRACI 2.1
AP [kg SO ₂ eq]	Acidification Potential	TRACI 2.1
EP [kg N eq]	Eutrophication Potential	TRACI 2.1
SFP [kg O ₃ eq]	Smog Formation Potential	TRACI 2.1

Acronym [Unit]	Environmental Indicators	Methodology
FFD [MJ, Surplus Energy]	Fossil Fuel Depletion	TRACI 2.1
Resource Use Indicators		
RPRE [MJ]	Use of renewable primary energy	
RPRM [MJ]	Renewable primary energy resources used as raw materials	
RPRT [MJ]	Total use of renewable primary energy resources	
NRPRE [MJ]	Use of non-renewable primary energy	
NRPRM [MJ]	Non-renewable primary energy resources used as raw materials	
NRPRT [MJ]	Total use of non-renewable primary energy resources	
SM [kg]	Input of secondary material	
RSF [MJ]	Use of renewable secondary fuels	
NRSF [MJ]	Use of non renewable secondary fuels	
RE [MJ]	Recovered energy	
FW [m ³]	Use of net fresh water	
Output Flows and Waste Categories		
HWD [kg]	Hazardous waste disposed	
NHWD [kg]	Non-hazardous waste disposed	
HLRW [kg]	High-level radioactive waste, conditioned, to final repository	
ILLRW [kg]	Intermediate- and low-level radioactive waste, conditioned, to final repository	
CRU [kg]	Components for re-use	
MR [kg]	Materials for Recycling	
MER [kg]	Material for Energy Recovery	
EEE [MJ]	Exported electrical energy	
EET [MJ]	Exported thermal energy	

LCA Results, per Functional Unit (1 ft²)

Table 7: LCA Results, per 1 ft² panels (A1 to A3)

Impact Categories	Soft Screen® and Soft Sound® Tiles	Soft Screen® 4' Edge Guard Kit	Soft Screen® 8' Edge Guard Kit	Soft Screen® Bracket Mount	Soft Screen® Cable Hung	Soft Screen® Sliding Track
GWP [kg CO ₂ eq]	1.78	0.79	0.98	0.75	1.10	1.75
ODP [kg CFC 11 eq]	6.51E-13	6.89E-10	6.89E-10	6.93E-10	6.90E-10	7.74E-10
AP [kg SO ₂ eq]	4.63E-03	2.10E-03	2.94E-03	1.99E-03	3.46E-03	7.23E-03
EP [kg N eq]	5.33E-04	2.07E-04	2.36E-04	2.03E-04	2.55E-04	3.65E-04
SFP [kg O ₃ eq]	7.02E-02	2.28E-02	3.05E-02	2.19E-02	3.52E-02	7.18E-02
FFD [MJ]	2.87E+00	1.19E+00	1.35E+00	1.15E+00	1.45E+00	2.11E+00
Resource Use Indicators						
RPRE [MJ]	1.44E+01	1.22E+01	1.33E+01	1.20E+01	1.39E+01	1.64E+01
RPRM [MJ]	1.32E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPRT [MJ]	1.57E+01	1.22E+01	1.33E+01	1.20E+01	1.39E+01	1.64E+01
NRPRE [MJ]	2.18E+01	1.21E+01	1.41E+01	1.18E+01	1.53E+01	2.28E+01

Impact Categories	Soft Screen® and Soft Sound® Tiles	Soft Screen® 4' Edge Guard Kit	Soft Screen® 8' Edge Guard Kit	Soft Screen® Bracket Mount	Soft Screen® Cable Hung	Soft Screen® Sliding Track
<i>NRPRM [MJ]</i>	7.30E+00	6.36E-02	6.39E-02	1.34E-02	6.34E-02	6.34E-02
<i>NRPRT [MJ]</i>	2.91E+01	1.21E+01	1.40E+01	1.17E+01	1.53E+01	2.28E+01
<i>SM [kg]</i>	2.35E-01	2.20E-03	8.79E-03	0.00E+00	1.23E-02	1.23E-02
<i>RSF [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>NRSF [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>RE [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>FW [m³]</i>	1.93E-02	1.30E-02	1.66E-02	1.23E-02	1.86E-02	2.90E-02
Output Flows and Waste Categories						
<i>HWD [kg]</i>	1.65E-03	1.32E-06	1.32E-06	4.04E-06	1.32E-06	6.02E-05
<i>NHWD [kg]</i>	1.17E-01	3.76E-02	1.07E-01	2.16E-02	1.47E-01	2.95E-01
<i>HLRW [kg]</i>	1.39E-06	9.25E-07	9.61E-07	9.23E-07	9.85E-07	1.19E-06
<i>ILLRW [kg]</i>	1.16E-03	7.72E-04	7.99E-04	7.71E-04	8.19E-04	9.88E-04
<i>CRU [kg]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>MR [kg]</i>	7.66E-02	2.14E-03	8.47E-03	1.08E-04	1.34E-02	1.26E-02
<i>MER [kg]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>EEE [MJ]</i>	8.47E-03	2.37E-04	9.37E-04	1.19E-05	1.48E-03	1.40E-03
<i>EET [MJ]</i>	3.99E-03	1.11E-04	4.41E-04	5.60E-06	6.97E-04	6.58E-04

LCA Results, per Alternate Unit (1 m²)

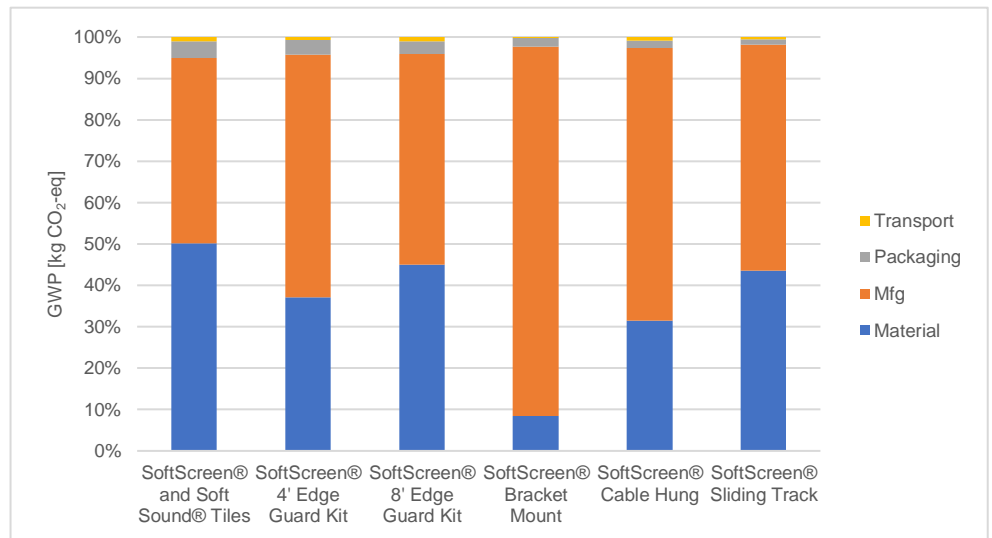
Table 8: LCA Results, per 1 m² panels (A1 to A3)

Impact Categories	Soft Screen® and Soft Sound® Tiles	Soft Screen® 4' Edge Guard Kit	Soft Screen® 8' Edge Guard Kit	Soft Screen® Bracket Mount	Soft Screen® Cable Hung	Soft Screen® Sliding Track
<i>GWP [kg CO₂ eq]</i>	19.2	8.5	10.6	8.1	11.8	18.9
<i>ODP [kg CFC 11 eq]</i>	7.00E-12	7.42E-09	7.42E-09	7.46E-09	7.42E-09	8.33E-09
<i>AP [kg SO₂ eq]</i>	4.98E-02	2.26E-02	3.17E-02	2.15E-02	3.73E-02	7.78E-02
<i>EP [kg N eq]</i>	5.74E-03	2.23E-03	2.54E-03	2.18E-03	2.74E-03	3.93E-03
<i>SFP [kg O₃ eq]</i>	7.55E-01	2.46E-01	3.29E-01	2.36E-01	3.79E-01	7.73E-01
<i>FFD [MJ]</i>	3.09E+01	1.28E+01	1.46E+01	1.24E+01	1.56E+01	2.27E+01
Resource Use Indicators						
<i>RPRE [MJ]</i>	1.55E+02	1.31E+02	1.43E+02	1.29E+02	1.50E+02	1.76E+02
<i>RPRM [MJ]</i>	1.42E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>RPRT [MJ]</i>	1.69E+02	1.31E+02	1.43E+02	1.29E+02	1.50E+02	1.76E+02
<i>NRPRE [MJ]</i>	2.35E+02	1.30E+02	1.51E+02	1.27E+02	1.65E+02	2.45E+02
<i>NRPRM [MJ]</i>	7.86E+01	6.85E-01	6.88E-01	1.44E-01	6.82E-01	6.82E-01
<i>NRPRT [MJ]</i>	3.14E+02	1.30E+02	1.51E+02	1.26E+02	1.64E+02	2.45E+02
<i>SM [kg]</i>	2.53E+00	2.36E-02	9.46E-02	0.00E+00	1.33E-01	1.32E-01

Impact Categories	Soft Screen® and Soft Sound® Tiles	Soft Screen® 4' Edge Guard Kit	Soft Screen® 8' Edge Guard Kit	Soft Screen® Bracket Mount	Soft Screen® Cable Hung	Soft Screen® Sliding Track
<i>RSF [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>NRSF [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>RE [MJ]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>FW [m³]</i>	2.08E-01	1.40E-01	1.79E-01	1.32E-01	2.00E-01	3.12E-01
Output Flows and Waste Categories						
<i>HWD [kg]</i>	1.78E-02	1.42E-05	1.43E-05	4.35E-05	1.43E-05	6.48E-04
<i>NHWD [kg]</i>	1.26E+00	4.05E-01	1.15E+00	2.33E-01	1.58E+00	3.18E+00
<i>HLRW [kg]</i>	1.49E-05	9.95E-06	1.03E-05	9.94E-06	1.06E-05	1.28E-05
<i>ILLRW [kg]</i>	1.25E-02	8.31E-03	8.60E-03	8.30E-03	8.82E-03	1.06E-02
<i>CRU [kg]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>MR [kg]</i>	8.24E-01	2.30E-02	9.12E-02	1.16E-03	1.44E-01	1.36E-01
<i>MER [kg]</i>	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
<i>EEE [MJ]</i>	9.12E-02	2.55E-03	1.01E-02	1.28E-04	1.60E-02	1.51E-02
<i>EET [MJ]</i>	4.29E-02	1.20E-03	4.75E-03	6.03E-05	7.51E-03	7.08E-03

Interpretation

A dominance analysis for Global Warming Potential was conducted for all products. For the majority of panels, upstream production of raw materials is the largest contributor, followed by manufacturing or packaging, depending on the product group. As manufacturing utilities were allocated on a per m² basis, products with overall lower impacts show a higher contribution from manufacturing.



Additional Environmental Information

Environment and Health During Manufacturing

Arktura prioritizes environmental sustainability, health, and safety throughout its manufacturing processes. From product design to waste reduction initiatives, Arktura integrates responsible practices to minimize environmental impact. The company is committed to ensuring a safe working environment for its employees and strives to optimize energy and water usage while promoting recycling and responsible disposal practices.

Environment and Health During Installation

All recommendations shall be utilized as indicated by SDS and installation guidelines. Specific product SDS and installation instructions can be requested directly from Arktura.

Environmental Activities and Certifications

Additional environmental certifications for Arktua's products such as Declare Labels, HPD, SDS, VOC Testing, acoustical performance and light reflectance can be requested directly from Arktura.

References

ASTM Program Operator Rules. Version: 8.0, Revised 04/29/20.

Life Cycle Assessment of Arktura Products: Background Report for EPD of Non-metal Ceiling and Interior Wall Panel Products. WAP Sustainability. August 2023.

ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO 14040:2006/Amd1:2020 Environmental management - Life cycle assessment – Principles and framework.

ISO 14044:2006/Amd1:2017/Amd2:2020 Environmental management - Life cycle assessment – Requirements and guidelines.

ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services. Geneva: International Organization for Standardization.

UL Environment. (2018). Part A: Life Cycle Assessment Calculation Rules and Report Requirements, UL 10010, V3.2.

UL Environment. (2020). *Part B: Non-Metal Ceiling and Interior Wall Panel System EPD Requirements, V2.0.*