FeltWorks® Acoustical Panels

Armstrong®
World Industries

According to ISO 14025,
EN 15804 and ISO21930:2017



FeltWorks® Acoustical Panels

Committed to Sustainability

Armstrong World Industries leads in delivering solutions that meet today's most stringent industry sustainability standards. We are committed to environmental responsibility in all aspects of our business, and carbon reduction is part of our 2030 company goals and ambitions. We were one of the first companies to create and publish the Environmental Product Declaration (EPD) in the ceiling industry. We have over a decade of experience using Life Cycle Assessment (LCA) to evaluate environmental impacts of our products starting with design, to raw materials, and through our operations. We are constantly working to optimize our operations and products to reduce their environmental impact. We believe the use of LCA and our commitment to transparency of our products' carbon footprint is critical to contributing to decarbonization of the built environment.

Contents

Performance features like acoustics, light reflectance, and durability

Product application and use

Product ingredients and their sources

How the product is produced

LCA results, including global warming potential and primary energy usage

Total impacts over the product life cycle

For more information visit
armstrong.com/transparency

UL CERTIFIED
ENVIRONMENTAL
PRODUCT DECLARATION
UL.COM/EPD

FeltWorks® Acoustical Panels

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EPD Program & Program Operator Name, Address, Logo, and Website	UL Solutions 333 Pfingsten Road Northbrook, IL 60062 www.ul.com www.spot.ul.com
General Program Instructions & Version Number	UL Solutions Program Operator Rules v.2.7 2022
Manufacturer Name & Address	Armstrong World Industries 2500 Columbia Ave, Lancaster, PA 17603
Declaration Number	4791881382.101.1
Declared Product & Declared Unit	1 m^2
Reference PCR & Version Number	Construction Products, 2019:14, version 2.0.0
Description of Product's Intended Application & Use	FeltWorks® Acoustical Ceiling and Wall Panels
Product RSL Description *(if appl.)*	75 years
Markets of Applicability	North America
Date of Issue	January 13, 2026
Period of Validity	5 years
EPD Type	Product-specific
Range of Dataset Variability	N/A
EPD Scope	Cradle to grave with options (A1-3, A4, A5, C1, C2, C3, C4)
Year(s) of Reported Manufacturer Primary Data	2024
LCA Software & Version Number	Sima Pro LCA software (Version 9.6.0.1)
LCI Database(S) & Version Number	Ecoinvent Database 3.11
LCIA Methodology & Version Number	EN15804, IPCC AR6
The PCR review was conducted by:	EPDInternational PCR Review Panel info@envirodec.com Cooper McCollum, UL Solutions Saero Consulting Sung Mo Yeon, H.I.P Pathway
This declaration was independently verified in accordance with ISO 14025: 2006. ☐ Internal ☒ External	
This Life Cycle Assessment Was Conducted in Accordance with ISO 14044 and The Reference PCR by:	
This Life Cycle Assessment was Independently Verified in Accordance with ISO 14044 and the Reference PCR by:	
Limitations	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.

Accuracy of Results:
EPDs regularly rely on estimations of impacts; the level of accuracy in estimation of effect differs for any particular product line and reported impact.

Comparability:
EPDs from different programs may not be comparable. Full conformance with a 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.

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1. PRODUCT DEFINITION AND INFORMATION

1.1 DESCRIPTION OF COMPANY/ORGANIZATION

Armstrong World Industries, Inc. (AWI) is a leader in the design and manufacture of innovative commercial and residential ceiling, wall, and suspension system solutions in the Americas. At home, at work, in healthcare facilities, classrooms, stores, or restaurants, Armstrong World Industries offers solutions that help enhance, comfort, save time, improve building efficiency and overall performance, and create beautiful spaces.

1.2 PRODUCT DESCRIPTION

1.2.1 Product Identification

FeltWorks® Acoustical Panels are made from 100% polyester fiber, bonded using heat instead of chemical binders. Polyester is naturally resistant to moisture, insects and mold. And, it is lightweight, easy to work with, yet still highly durable.

1.2.2 Product Specification

For the declared product, the following technical data in the delivery status must be provided with reference to the test standards:

Table 1. Technical Specifications

Property	Test Method	Value
Fire hazard classification	ASTM E84	Available in Class A
Noise reduction coefficient	ASTM C423 Mounting A	NRC 0.70 SAA 0.69
Fungi resistance of insulation materials and facings	ASTM C1338-08	Pass
Classification of reaction to fire	BS EN 13823:2010 BS EN ISO 11925-2:2010	Reaction to fire classification B-s1,d0
PFAS (per-and polyfluoroalkyl substances)	US EPA 3550C/8321B	N.D
Sound absorption coefficient	EN ISO 354: 2003	αw=0.95 Class A

1.2.3 Product Average

The results of this declaration represent an average performance for the listed products and manufacturing locations. The average product is calculated based on the weight of production.

1.3 APPLICATION

FeltWorks® Acoustical Panels are used on interior ceilings and walls to provide outstanding sound absorption.

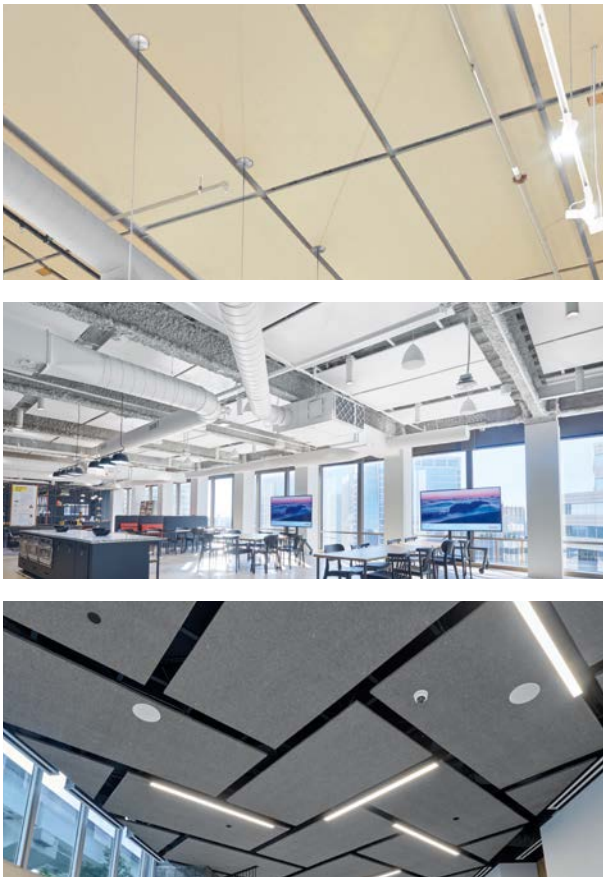


Figure 1. FeltWorks® Acoustical Panels in its various application

1.4 DECLARATION OF METHODOLOGICAL FRAMEWORK

This declaration is a product-specific EPD and is cradle-to-installation with end-of-life. The underlying LCA upon which this EPD is based included the following life cycle modules: Raw Material supply (A1); Inbound Transportation (A2); Manufacturing (A3); Distribution (A4); Installation (A5); End-of-life, Deconstruction (C1); Transport (C2); Waste processing (C3) and End-of-life, Disposal (C4). No known flows have been deliberately excluded. The product is expected to perform as claimed for the 75-year reference service life if it remains clean and dry in its installed state.

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1.5 TECHNICAL REQUIREMENTS

The standards that can be applied for FeltWorks® Acoustical Panels are:

- ASTM E84 - Surface Burning Characteristics; pursuant to test certificate
- ASTM C423 - Sound Absorption
- ASTM C1338-08 – Fungi Resistance of Insulation Materials and Facings
- BS EN 13823:2010 / BS EN ISO 11925-2:2010 Reaction to fire classification B-s1,d0
- US EPA 3550C/8321B – PFAS (per-and polyfluoroalkyl substances)
- EN ISO 345: 2003 – Sound Absorption coefficient

1.6 PROPERTIES OF DECLARED PRODUCT AS DELIVERED

The declared product dimensions vary by installation. The range of products declared in the table below has a density of 80 to 120 kg/m^3, a thickness of 25 mm to 50 mm. Since the ranges are declared, variations may occur for specific products.

Table 2. Declared Unit Properties of FeltWorks® Acoustical Panels

Name	Value	Unit
Declared Unit	1	m^2
Density	80-120	kg/m^3
Thickness	25-50	mm

1.7 MATERIAL COMPOSITION

The composition of the FeltWorks Acoustical Panels (1 m^2) is as follows:

Table 3. Material Composition

Material Component	Quantity (% By Mass)
Polyester staple fiber	10 ~ 60
Recycled polyester fiber	0 ~ 40
Other	<1

1.8 MANUFACTURING

Manufacturing Process

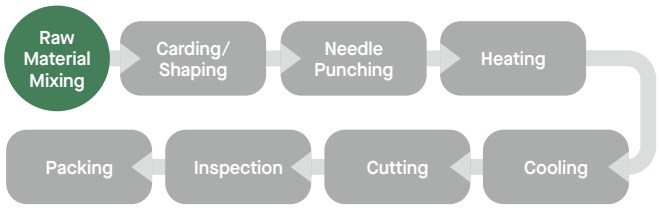


Figure 2. FeltWorks Acoustical Panels Manufacturing Process

1.9 PACKAGING

FeltWorks® Acoustical Panels are packaged using LDPE (low-density polyethylene) film. The regional disposal scenarios for the U.S. is the default assumption for the packaging waste generated during installation. The disposal rates by material type and waste treatment method are shown in the table below.

Table 4. Disposal rates used by material type and waste treatment method

Country Region	United States		
Material Type	Plastics	Metals	Pulp (cardboard, paper)
Recycling Rate	*15%*	*68%*	*17%*
Landfill Rate	*57%*	*34%*	*9%*
Incineration Rate	*75%*	*20%*	*5%*

1.10 TRANSPORTATION

The outbound transportation of the product from the manufacturing facility is diesel-truck and ship. The weighted average distance from the manufacturing site to the customer is 375 km by truck and 7,580 km by ship.

1.11 PRODUCT INSTALLATION

FeltWorks Acoustical Panels are made for easy handling and installation. Installation of FeltWorks panels is accomplished by manual labor using mostly hand tools. No material or energy inputs are required on the jobsite.

1.12 USE

There are no special features to be noted within the limits of normal and customary usage.

1.13 REFERENCE SERVICE LIFE AND ESTIMATED BUILDING SERVICE LIFE

The product is assumed to remain in service for the life of the building, 75 years.

1.14 REUSE, RECYCLING, AND ENERGY RECOVERY

At end-of-life, the products may be recycled, incinerated, or landfilled.

1.15 DISPOSAL

Until a formal recycling program is established, it is assumed that all materials removed from the decommissioning of a building were taken to a local construction waste landfill, using 100 miles as the average distance to landfill. Disposal in municipal landfill or commercial incineration facilities is permissible and should be done in accordance with local, state, and federal regulations.

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2. LIFE CYCLE ASSESSMENT BACKGROUND INFORMATION

2.1 FUNCTIONAL OR DECLARED UNIT

The declared unit for this EPD is 1 m^2 of FeltWorks Acoustical Panels for use over 75 years.

Table 5. Declared Unit Properties of FeltWorks® Acoustical Panels

Name	Value	Unit
Declared Unit	1	m^2
Declared thickness	25 to 50	mm
Weight per declared unit	3.18	kg/m^2

2.2 SYSTEM BOUNDARY

This EPD is cradle-to-installation with end-of-life. Details of the system boundaries may be found in the table below.

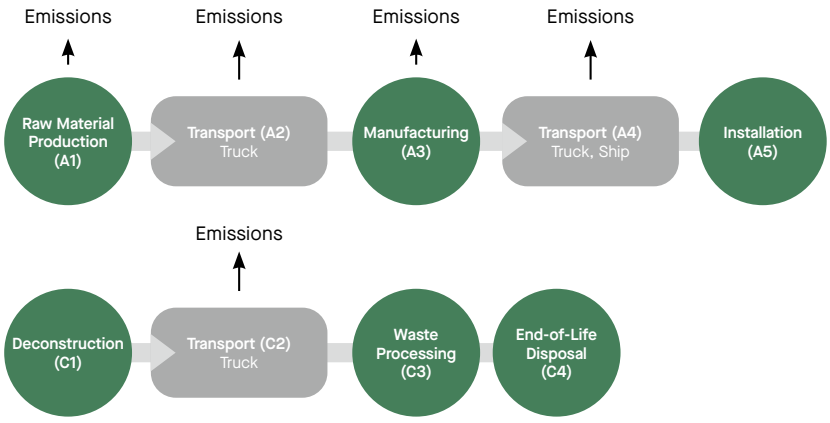


Figure 3. FeltWorks Acoustical Panels System boundary

Raw Material Production (A1)

- Polyester staple fiber
- Recycled polyester fiber

Transport (A2)

- Truck

Manufacturing (A3)

- Electricity
- Water
- Natural gas
- Packaging

Transport (A4)

- Ship
- Truck

Installation (A5)

- Packaging waste

Deconstruction (C1)

Transport (C2)

- Truck

Waste Processing (C3)

- Plastic waste-Recycling

Disposal (C4)

- Disposal-Incineration
- Disposal-Landfill

Figure 4. Flow Diagram of FeltWorks Acoustical Panels

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2.3 ESTIMATES AND ASSUMPTIONS

FeltWorks® Acoustical panels require no utilities or maintenance over its useful life; it is assumed that the product remains in service for the 75-year reference service.

2.4 CUT-OFF CRITERIA

Based on the mass of each unit process, more than 99% of the total mass was included. As a result, the flame-retardant solution (0.02%) was excluded.

Flows excluded for this study include infrastructure, capital goods and workforce burdens. Inputs and outputs associated with infrastructure (construction, maintenance and demolition of buildings/plants, road surfaces, transport equipment, etc.) are not included. This choice is based on experience from previous LCAs where the contribution from these items was negligible due to the long lifetime of the equipment compared to the high production volume of material during that lifetime. Although pallets are used in the transportation of packaged, finished FeltWorks Acoustical Panels, pallets have been excluded due to their high reuse rates since they would have a negligible impact if otherwise included.

2.5 DATA SOURCES

Primary manufacturing data was collected from the included manufacturing locations listed in the Manufacturing section. Secondary data primarily references the GaBi database. LCI data was taken from the GaBi databases which are on the approved database list in the PCR.

2.6 DATA QUALITY

Primary data was based on measured and calculated data from the plant which produced most of the product in calendar year 2024. It meets requirements for completeness along with temporal, geographical and technological representativeness.

2.7 PERIOD UNDER REVIEW

The LCA data were collected for the calendar year 2024.

2.8 ALLOCATION

Where it was not possible to avoid allocation, allocation was made based on product mass which is suggested by the PCR. The raw material, energy and waste data were collected and allocated based on the mass of the entire plant consumption because the products produced in the factory have different specifications (height, width, thickness, density), but are produced through the same process.

In the case of waste allocation, allocation was performed using the ratio of monthly product output. No allocation was applied to recycled materials, as there are no valuable co-products.

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3. LIFE CYCLE ASSESSMENT SCENARIOS

Table 6. Transport to the building site (A4)

Name	Value	Unit
Fuel type	diesel, heavy fuel oil	
Liters of fuel	3.0E+01 [9.00E+03]	*l/100km*
Vehicle type	EURO Classes lorry [Container ship, 50000dwt]	
Transport distance	3.75E+02 [7.58E+03]	*km*
Capacity utilization (including empty runs, mass based)	40% [70%]	*%*
Gross density of products transported	9.99E+02	*kg/m³*
Weight of products transported (if gross density not reported)	3.30E+00	*kg*
Volume of products transported (if gross density not reported)	3.31E-02	*m³*
Capacity utilization volume factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaging products)	1	-

Table 7. Installation Into The Building (A5)

Name	Value	Unit
Ancillary materials	0.00E+00	*kg*
Net freshwater consumption specified by water source and fate (X m³ river water evaporated, X m³ city water disposed to sewer)	0.00E+00	*m³*
Other resources	0.00E+00	*kg*
Electricity consumption	0.00E+00	*kWh*
Other energy carriers	0.00E+00	*MJ*
Product loss per declared unit	0.00E+00	*kg*
Waste materials at the construction site before waste processing, generated by product installation	0.00E+00	*kg*
Output materials resulting from on-site waste processing (specified by route; e.g. for recycling, energy recovery and/or disposal)	0.00E+00	*kg*
Biogenic carbon contained in packaging	7.36E-06	*kg CO_2*
Direct emissions to ambient air, soil and water	0.00E+00	*kg*
VOC content	0.00E+00	*µg/m³*

Table 8. End of Life (C1-C4)

Name		Value	Unit
Assumptions for scenario development (description of deconstruction, collection, recovery, disposal method and transportation)			
Collection process (specified by type)	Collected separately	0.00E+00	*kg*
	Collected with mixed construction waste	3.30E+00	*kg*
Recovery (specified by type)	Reuse	0.00E+00	*kg*
	Recycling	4.95E-01	*kg*
	Landfill	2.24E+00	*kg*
	Incineration	5.61E-01	
	Incineration with energy recovery	0.00E+00	*kg*
	Energy conversion efficiency rate	0.00E+00	*kg*
Disposal (specified by type)	Product or material for final deposition	3.30E+00	*kg*
Removals of biogenic carbon (excluding packaging)		0.00E+00	*kg CO_2*

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4. LIFE CYCLE ASSESSMENT RESULTS

Table 9. Description of the system boundary modules

MND = MODULE NOT DECLARED
X = DECLARED

			EPD Type
Product Stage	*A1*	Raw Material Supply	×
	A2	Transport	×
	A3	Manufacturing	×
Construction Process Stage	*A4*	Transport from gate to site	×
	A5	Assembly/Install	×
Use Stage	*B1*	Use	MND
	B2	Maintenance	MND
	B3	Repair	MND
	B4	Replacement	MND
	B5	Refurbishment	MND
	B6	Building Operational Energy Use During Product Use	MND
	B7	Building Operational Water Use During Product Use	MND
End of Life Stage	*C1*	Deconstruction	×
	C2	Transport	×
	C3	Waste processing	×
	C4	Disposal	×
Benefits & Loads Beyond System Boundary	*D*	Reuse, Recovery, Recycling Potential	MND

** Results for modules A1-A3 results are aggregated, as described in the PCR.*

4.1 LIFE CYCLE IMPACT ASSESSMENT RESULTS

This chapter presents the results of the environmental performance indicators. Additionally, the estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The calculation resource use indicators is carried out in accordance with Option A of Annex 3 of PCR 2019:14 v2.0.0.

The results are declared using EN 15804 reference package based on EF 3.1

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Table 10. Mandatory impact category indicators according to EN 15804

TRACI V2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP-total [kg CO2]	8.80E+00	1.23E+00	1.48E-03	0.00E+00	8.29E-02	2.59E-01	1.54E+00
GWP-fossil [kg CO2]	8.54E+00	1.23E+00	1.48E-03	0.00E+00	8.29E-02	2.57E-01	1.54E+00
GWP-biogenic [kg CO2]	2.54E-01	-2.02E-04	7.36E-06	0.00E+00	4.88E-06	1.40E-03	2.98E-04
GWP-luluc [kg CO2]	5.75E-03	6.41E-04	9.91E-08	0.00E+00	3.38E-05	2.95E-04	2.36E-05
ODP [kg CFC-11 eq]	2.11E-05	1.77E-08	1.98E-12	0.00E+00	1.21E-09	1.37E-09	1.15E-09
AP [Mole of H+ eq]	3.54E-02	1.84E-02	6.57E-07	0.00E+00	3.77E-04	1.08E-03	4.95E-04
EP-freshwater [kg P eq]	2.30E-03	7.34E-05	2.15E-08	0.00E+00	6.66E-06	1.51E-04	7.05E-06
EP-marine [kg N eq]	7.80E-03	4.61E-03	6.54E-07	0.00E+00	1.41E-04	2.78E-04	4.89E-03
EP-terrestria l[Mole of N eq]	7.76E-02	5.11E-02	2.47E-06	0.00E+00	1.54E-03	2.76E-03	2.24E-03
POCP [kg NMVOC eq]	4.24E-02	1.50E-02	8.74E-07	0.00E+00	5.32E-04	8.10E-04	6.74E-04
ADP-minerals* [kg Sb eq]	5.50E-05	2.69E-06	6.06E-10	0.00E+00	2.59E-07	9.67E-07	1.23E-07
ADP-fossil* [MJ]	1.55E+02	1.63E+01	1.85E-03	0.00E+00	1.18E+00	2.54E+00	8.26E-01
WDP* [m^3 world equiv]	1.85E+00	6.26E-02	-2.17E-04	0.00E+00	5.64E-03	3.12E-02	-3.14E-01
PM [Disease incidences]	3.80E-07	7.87E-08	1.26E-11	0.00E+00	7.96E-09	5.75E-09	5.67E-09
IRP** [kBq U235 eq]	5.99E-01	1.18E-02	3.51E-06	0.00E+00	1.02E-03	6.48E-03	1.09E-03
ETP-fw* [CTUe]	3.98E+01	3.79E+00	1.67E-03	0.00E+00	3.09E-01	1.20E+00	1.05E+01
HTP-c* [CTUh]	2.36E-08	6.23E-09	1.48E-12	0.00E+00	4.29E-10	3.20E-10	4.66E-10
HTP-nc* [CTUh]	7.89E-08	8.09E-09	4.63E-12	0.00E+00	8.10E-10	3.23E-09	9.03E-09
SQP* [Pt]	2.72E+01	7.39E+00	1.96E-03	0.00E+00	8.83E-01	5.47E-01	1.38E+00

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*
*** Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible.*

Table 11. Additional mandatory and voluntary impact category indicators

TRACI V2.1	A1-A3	A4	A5	C1	C2	C3	C4
GWP 100 [kg CO2 eq]	8.55E+00	1.23E+00	1.48E-03	0.00E+00	8.30E-02	2.58E-01	1.54E+00
GWP-GHG [kg CO2 eq]	8.54E+00	1.23E+00	1.48E-03	0.00E+00	8.29E-02	2.57E-01	1.54E+00

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4.2. LIFE CYCLE INVENTORY RESULTS

Table 12. Resource Use

TRACI V2.1	A1-A3	A4	A5	C1	C2	C3	C4
PERE [MJ, net calorific value]	6.34E+00	1.80E-01	7.02E-05	0.00E+00	1.55E-02	1.54E-01	1.86E-02
PERM [MJ, net calorific value]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT [MJ, net calorific value]	6.34E+00	1.80E-01	7.02E-05	0.00E+00	1.55E-02	1.54E-01	1.86E-02
PENRE [MJ, net calorific value]	1.55E+02	1.63E+01	1.85E-03	0.00E+00	1.18E+00	2.54E+00	8.26E-01
PENRM [MJ, net calorific value]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT [MJ, net calorific value]	1.55E+02	1.63E+01	1.85E-03	0.00E+00	1.18E+00	2.54E+00	8.26E-01
SM [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF [MJ, net calorific value]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF [MJ, net calorific value]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW [m3]	5.26E-02	1.89E-03	-4.93E-06	0.00E+00	1.67E-04	9.91E-04	-6.79E-03
PERE [MJ, net calorific value]	6.34E+00	1.80E-01	7.02E-05	0.00E+00	1.55E-02	1.54E-01	1.86E-02

Acronyms: PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Table 13. Waste Categories

TRACI V2.1	A1-A3	A4	A5	C1	C2	C3	C4
HWD [kg]	8.62E-02	3.53E-04	8.79E-06	0.00E+00	3.12E-05	8.43E-04	1.15E-02
NHWD [kg]	1.05E+00	5.67E-01	1.60E-03	0.00E+00	7.20E-02	1.27E-02	2.26E+00
RWD [kg]	1.50E-04	2.88E-06	8.73E-10	0.00E+00	2.50E-07	1.94E-06	2.71E-07

Acronyms: HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

Table 14. Output flow Categories

TRACI V2.1	A1-A3	A4	A5	C1	C2	C3	C4
CRU [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET [MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Acronyms: CRU = Components for re-use; MFR = Material for recycling; MER = Materials for energy recovery; EEE = Exported energy, electricity; EET = Exported energy, thermal

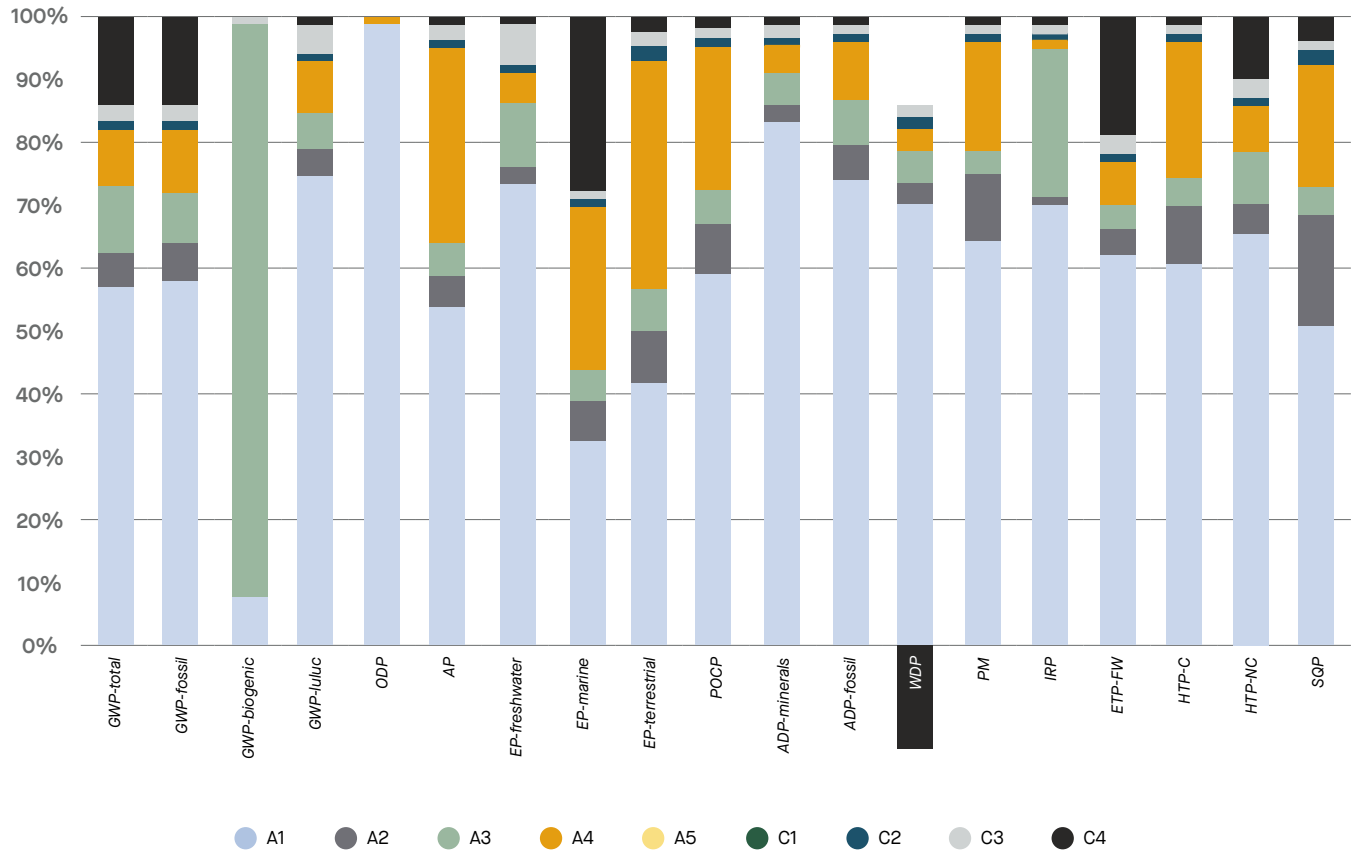
FeltWorks® Acoustical Panels

According to ISO 14025, EN 15804 and ISO21930:2017

5. LCA: INTERPRETATION

The underlying LCA upon which this EPD is based considered the following nineteen environmental impact categories: GWP 100 = Global Warming Potential; GWP-tatal = Global warming potential-total; GWP-fossil = Global warming potential-fossil fuels; GWP-biogenic = Global warming potential-biogenic; GWP-luluc = Global warming potential-land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, accumulated exceedance; EP-freshwater = Eutrophication potential-freshwater; EP-marine = Eutrophication potential-marine; EP-terrestrial = Eutrophication potential-terrestrial; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential-non-fossil resources; ADPF = Abiotic depletion potential-fossil resources; WDP = Water (user) deprivation potential; PM = Particulate matter emissions; IRP = Ionizing radiation, human health; ETP-fw = Eco-toxicity - freshwater; HTP-C = Human toxicity, cancer effect; HTP-nc = Human toxicity, non-cancer effects; SQP = Land use related impacts/Soil quality

The impact assessment results indicate that among the life cycle modules declared for FeltWorks Acoustical Panels, the Raw material supply (A1) life cycle module accounted for the majority of the potential environmental impact of each of these ninteen impact categories.



FeltWorks® Acoustical Panels

According to ISO 14025, EN 15804 and ISO21930:2017

6. ADDITIONAL ENVIRONMENTAL INFORMATION

6.1 ENVIRONMENT AND HEALTH DURING INSTALLATION

Classified as Non-Hazardous according to OSHA 29CFR1910.1200.

6.2 EXTRAORDINARY EFFECTS

No extraordinary effects or environmental impacts are expected due to destruction of the product by fire, water, or mechanical means.

6.3 DELAYED EMISSIONS

No delayed emissions are expected from this product.

6.4 ENVIRONMENTAL ACTIVITIES AND CERTIFICATIONS

SCS Indoor Advantage Gold: Products are tested for compliance and third-party certified by SCS Global to meet the CDPH Emission Standard v1.

6.5 FURTHER INFORMATION

Additional information may be found at armstrong.com/transparency

7. REFERENCES

PCR A: Life Cycle Assessment Calculation Rules and Report Requirements UL Environment (December 12, 2018, version 3.2)

PCR Part B: Mechanical, Specialty, Thermal and Acoustic Insulation EPD Requirements, UL Environment, UL 10010-03 (September 3, 2019, version 1.0)

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

ISO 14040: 2006, Environmental management – Life cycle assessment – Principles and framework ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines ISO 14046:2013, Environmental management- Water footprint- Principles, requirements and guidelines

EN 15804:2012+A1:2013, Sustainability of construction works. Environmental product declarations. Core rules for the product category of construction products

ISO 21930: 2017, Sustainability in building construction – Environmental declaration of building products

EN 15804, Sustainability of construction works, Environmental product declarations, Core rules for the product category of construction products

ASTM C423, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method

ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials UL General Program Rules v. 2.5 March 2020

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