



AIR-SHIELD™ LMP, LSR, TMP

AIR-SHIELD fluid-applied membranes are water-based air/liquid moisture barriers that cure to form a tough, seamless, elastomeric membrane. AIR-SHIELD fluid-applied membranes exhibit excellent resistance to air leakage. When properly applied as a drainage plane, AIR-SHIELD fluid-applied membranes prohibit liquid water intrusion into the substrate.



Performance dashboard

Features & functionality

AIR-SHIELD LMP

AIR-SHIELD LMP is a water-based air/liquid moisture barrier that cures to form a tough, seamless, elastomeric membrane.

AIR-SHIELD LSR

AIR-SHIELD LSR is an asphalt-free, single-component, synthetic rubber based liquid air/vapor and liquid moisture barrier.

AIR-SHIELD TMP

AIR-SHIELD TMP is a water-based air/liquid moisture barrier that cures to form a tough, seamless, elastomeric membrane.

Visit **W.R. MEADOWS** for more product information:

[AIR-SHIELD LMP](#)
[AIR-SHIELD LSR](#)
[AIR-SHIELD TMP](#)

MasterFormat® 07 27 26
[AIR-SHIELD Guide Specs](#)

For spec help, [contact us](#) or call 800-342-5976.

Environment & materials

Improved by:

Made in the United States
USGBC member
CAGBC member
VOC CONTENT:
AIR-SHIELD LMP: 99 g/L
AIR-SHIELD LSR: 115 g/L
AIR-SHIELD TMP: 133 g/L

Certifications, rating systems & disclosures:

Health Product Declaration
Product ingredients do not contain chemicals in the Living Building Challenge Red List
Build America, Buy America Act compliant

[See LCA, interpretation & rating systems](#)



SM Transparency Report (EPD)™

EPD

3rd-party reviewed



Transparency Report (EPD)

3rd-party verified



Validity: 03/xx/25 – 03/xx/30
SM-WRM – 03xx2025 – 001

LCA

This Environmental Product Declaration (EPD) was externally verified by Lindita Bushi, PhD, Senior Research Associate at Athena, in accordance with ISO 21930:2017, ASTM International. (2023). Product Category Rules (PCR) for Preparing an Environmental Product Declaration (EPD) for Water-Resistive and Air Barriers as well as ISO 14025:2006.

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Athena Sustainable Materials Institute

SUMMARY

Reference PCR
ASTM PCR for Water-Resistive and Air Barriers

Regions; system boundaries
North America; Cradle-to-gate

Declared unit: 1 m²

LCIA methodology: TRACI 2.1

LCA software; LCI database
SimaPro Developer 9.6; ecoinvent v3.10, US-EI 2.2

Public LCA:
LCA of W. R. MEADOWS Air and Vapor Barriers

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by Lindita Bushi, PhD, Senior Research Associate, at Athena.

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EPD additional content

AIR-SHIELD™ LMP, LSR, TMP

AIR-SHIELD™ LMP

AIR-SHIELD™ LSR

AIR-SHIELD™ TMP

EPD additional content

Data

Background: This product-specific plant-specific declaration was created by collecting production data from 3 facilities in Cartersville, GA; Fort Worth, TX; and Hampshire, IL. All unit processes were modeled using primary data. Secondary data sources include those available in the ecoinvent v3.10 and US-EI 2.2 databases.

Product-specific packaging includes poly bags which are typically disposed of at the site of installation.

Allocation The W. R. MEADOWS facility produces multiple types of products each year. To allocate electricity and natural gas consumption accurately to each product, total annual energy consumption was distributed based on the proportion of each product's annual production (by mass) relative to the total plant production. This approach assigns manufacturing activities proportionally to each product type.

All associated manufacturing resources and waste flows were allocated using the same approach. There are no co-products produced during their manufacturing processes. The model used in the LCA ensures that the sum of the allocated inputs and outputs of a unit process shall be equal to the inputs and outputs of the unit process before allocation. This means that no double counting or omissions of inputs or outputs through allocation is occurring.

Cut-off criteria for the inclusion of mass and energy flows are 1% of renewable primary resource (energy) usage, 1% nonrenewable primary resource (energy) usage, 1% of the total mass input of that unit process, and 1% of environmental impacts. The total of neglected input flows per module does not exceed 5% of energy usage, mass, and environmental impacts.

The only exceptions to these criteria are substances with hazardous and toxic properties, which must be listed even when the given process unit is under the cut-off criterion of 1% of the total mass. No known flows are deliberately excluded from this declaration, and no substances considered to be hazardous or toxic according to the Resource Conservation and Recovery Act (RCRA). Subtitle C are present in the products. Therefore, these criteria have been met. Biogenic carbon is included in reported results.

Quality

The precision of the data is considered high. W. R. MEADOWS personnel provided a detailed bill of materials, and facility managers provided utility information for the manufacturing facility. The raw material transportation distances were provided directly by the facility.

The data included is considered complete. The LCA model included all known material and energy flows. As pointed out in that section, no known flows above 1% were excluded and the sum of all excluded flows totals less than 5%, whether evaluated by mass, energy, or potential environmental impact.

The consistency of the model is considered high. Furthermore, the modeling assumptions were consistent throughout the model, with a preference for the ecoinvent v3.10 database.

Major system boundary exclusions

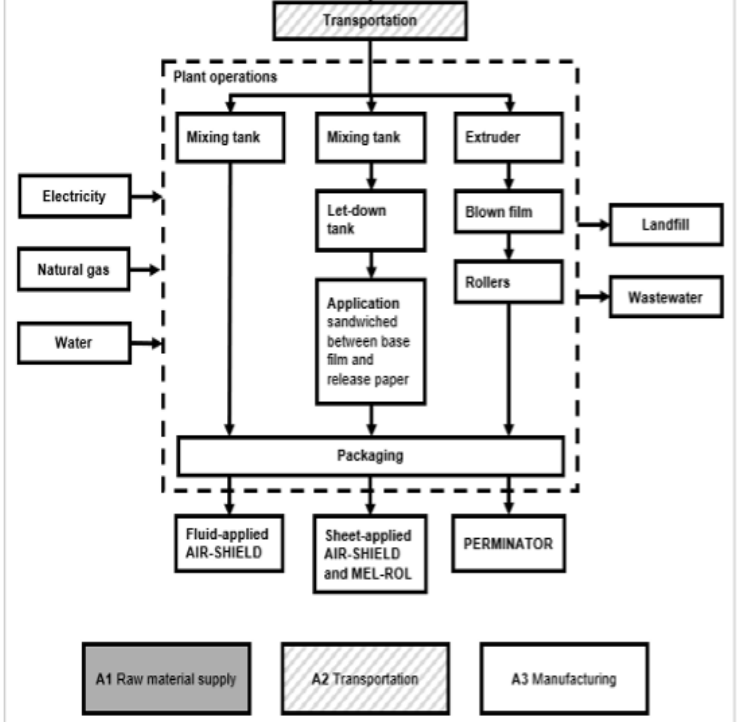
- Manufacture and transport of packaging not associated with final product
- Construction of major capital equipment
- Maintenance and operation of support equipment
- Human labor and employee transport
- Disposal of final product, except for biogenic carbon balance reporting

Scenarios and additional technical information

Biogenic carbon disclosure in installation stage [A5] While the impacts from installation are out of the scope of this cradle-to-gate study, ISO 21930:2017 requires that biogenic carbon emissions associated with packaging disposed of after product installation are separately reported. The biogenic carbon removals from packaging in the manufacturing stage (A3) are later accounted for as biogenic carbon emissions in the installation stage (A5).

Product name	Biogenic carbon emission from packaging (A5)
AIR-SHIELD LMP	4.94E-02 kg CO ₂
AIR-SHIELD LSR	3.55E-04 kg CO ₂
AIR-SHIELD TMP	3.55E-04 kg CO ₂

Flow diagram



Major assumptions and limitations

- Generic data sets used for material inputs, transport, and waste processing are considered good quality, but actual impacts from material suppliers, transport carriers, and local waste processing may vary
- The impact assessment methodology categories do not represent all possible environmental impact categories; characterization factors used within the impact assessment methodology may contain varying levels of uncertainty
- LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks
- This EPD covers only the cradle-to-gate impacts of products using a declared unit. The results listed in this EPD cannot be used to compare between products.

LCIA impact factors required by the PCR are global warming, ozone depletion potential, acidification, eutrophication, smog, and fossil fuel depletion. The EPDs from different programs shall not be comparable.

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LMP (Cartersville, GA)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	3.09E+00	1.10E-01	6.19E-01	3.82E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	3.09E+00	1.10E-01	6.19E-01	3.82E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	3.01E+00	1.09E-01	6.68E-01	3.79E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	3.01E+00	1.09E-01	6.68E-01	3.79E+00
Ozone depletion	kg CFC-11 eq	1.05E-07	1.68E-09	1.01E-08	1.17E-07
Acidification	kg SO ₂ eq	9.82E-03	1.29E-04	2.31E-03	1.23E-02
Eutrophication	kg N eq	2.21E-03	9.43E-06	3.31E-04	2.55E-03
Smog	kg O ₃ eq	1.32E-01	1.98E-03	3.85E-02	1.73E-01
Respiratory effects	kg PM2.5 eq	1.62E-03	3.38E-05	4.94E-04	2.15E-03
Additional environmental information					
Carcinogenics	CTUh	55.88%	0.73%	43.39%	100%
Non-carcinogenics	CTUh	62.85%	7.01%	30.14%	100%
Ecotoxicity	CTUe	66.85%	8.12%	25.03%	100%
Fossil fuel depletion	MJ surplus	1.04E+01	2.07E-01	9.95E-01	1.16E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.42E+00	2.39E-03	1.71E+01	1.85E+01
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.46E+00	2.39E-03	1.71E+01	1.85E+01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	6.96E+01	1.56E+00	1.06E+01	8.17E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	8.69E+01	1.56E+00	1.06E+01	9.90E+01
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	4.43E+00	7.65E-03	7.42E-01	5.18E+00
Abiotic depletion (fossil fuels)	MJ, LHV	7.94E+01	1.47E+00	9.31E+00	9.01E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	5.54E-02	3.31E-04	1.10E-02	6.68E-02
Non-hazardous waste disposed	kg	1.35E-03	1.34E-06	1.08E-03	2.43E-03
High-level radioactive waste, conditioned, to final repository	kg	6.78E-06	1.75E-08	9.53E-07	7.76E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	1.55E-05	3.43E-08	5.11E-06	2.07E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-1.20E-04	0	-4.94E-02	-4.95E-02
Biogenic carbon emission from packaging	kg CO ₂	0	0	1.20E-04	1.20E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LMP (Fort Worth, TX)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	3.09E+00	1.92E-01	6.06E-01	3.89E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	3.09E+00	1.92E-01	6.06E-01	3.89E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	3.01E+00	1.90E-01	6.56E-01	3.86E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	3.01E+00	1.90E-01	6.56E-01	3.86E+00
Ozone depletion	kg CFC-11 eq	1.05E-07	2.94E-09	9.26E-09	1.17E-07
Acidification	kg SO ₂ eq	9.82E-03	2.25E-04	2.28E-03	1.23E-02
Eutrophication	kg N eq	2.21E-03	1.65E-05	3.27E-04	2.55E-03
Smog	kg O ₃ eq	1.32E-01	3.47E-03	3.81E-02	1.74E-01
Respiratory effects	kg PM2.5 eq	1.62E-03	5.91E-05	4.91E-04	2.17E-03
Additional environmental information					
Carcinogenics	CTUh	55.70%	1.27%	43.02%	100%
Non-carcinogenics	CTUh	59.97%	11.70%	28.33%	100%
Ecotoxicity	CTUe	63.05%	13.38%	23.57%	100%
Fossil fuel depletion	MJ surplus	1.04E+01	3.62E-01	9.78E-01	1.18E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.38E+00	4.18E-03	1.71E+01	1.85E+01
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.42E+00	4.18E-03	1.71E+01	1.85E+01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	6.96E+01	2.73E+00	1.02E+01	8.25E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	8.69E+01	2.73E+00	1.02E+01	9.98E+01
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	4.43E+00	1.34E-02	6.20E-01	5.06E+00
Abiotic depletion (fossil fuels)	MJ, LHV	7.94E+01	2.56E+00	9.16E+00	9.11E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	5.54E-02	5.79E-04	1.10E-02	6.70E-02
Non-hazardous waste disposed	kg	1.35E-03	2.34E-06	1.07E-03	2.42E-03
High-level radioactive waste, conditioned, to final repository	kg	6.80E-06	3.06E-08	9.54E-07	7.78E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	1.61E-05	5.99E-08	3.43E-06	1.96E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-1.20E-04	0	-4.94E-02	-4.95E-02
Biogenic carbon emission from packaging	kg CO ₂	0	0	1.20E-04	1.20E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LMP (Hampshire, IL)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	3.09E+00	2.41E-01	6.47E-01	3.98E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	3.09E+00	2.41E-01	6.46E-01	3.98E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	3.01E+00	2.38E-01	6.96E-01	3.95E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	3.01E+00	2.38E-01	6.95E-01	3.95E+00
Ozone depletion	kg CFC-11 eq	1.05E-07	3.70E-09	1.27E-08	1.21E-07
Acidification	kg SO ₂ eq	9.82E-03	2.83E-04	2.55E-03	1.27E-02
Eutrophication	kg N eq	2.21E-03	2.07E-05	3.48E-04	2.58E-03
Smog	kg O ₃ eq	1.32E-01	4.35E-03	4.02E-02	1.77E-01
Respiratory effects	kg PM2.5 eq	1.62E-03	7.42E-05	5.07E-04	2.20E-03
Additional environmental information					
Carcinogenics	CTUh	54.68%	1.57%	43.75%	100%
Non-carcinogenics	CTUh	57.65%	14.13%	28.22%	100%
Ecotoxicity	CTUe	60.88%	16.23%	22.89%	100%
Fossil fuel depletion	MJ surplus	1.04E+01	4.55E-01	9.88E-01	1.19E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.38E+00	5.25E-03	1.71E+01	1.84E+01
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.42E+00	5.25E-03	1.71E+01	1.85E+01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	6.96E+01	3.43E+00	1.11E+01	8.41E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	8.69E+01	3.43E+00	1.11E+01	1.01E+02
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0

Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	4.43E+00	1.68E-02	6.75E-01	5.12E+00
Abiotic depletion (fossil fuels)	MJ, LHV	7.94E+01	3.22E+00	9.55E+00	9.21E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	5.54E-02	7.27E-04	1.10E-02	6.72E-02
Non-hazardous waste disposed	kg	1.13E-01	0	8.05E-01	9.19E-01
High-level radioactive waste, conditioned, to final repository	kg	6.80E-06	3.84E-08	9.54E-07	7.79E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	1.61E-05	7.52E-08	8.11E-06	2.42E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-1.20E-04	0	-4.94E-02	-4.95E-02
Biogenic carbon emission from packaging	kg CO ₂	0	0	1.20E-04	1.20E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LSR (Cartersville, GA)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	5.26E+00	1.29E-01	6.29E-01	6.02E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-5.72E-04	0	5.72E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	5.26E+00	1.29E-01	6.28E-01	6.02E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	5.11E+00	1.27E-01	7.48E-01	5.99E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	5.11E+00	1.27E-01	7.48E-01	5.99E+00
Ozone depletion	kg CFC-11 eq	1.90E-07	1.98E-09	3.62E-09	1.95E-07
Acidification	kg SO ₂ eq	1.49E-02	1.51E-04	1.48E-03	1.66E-02
Eutrophication	kg N eq	2.49E-03	1.11E-05	2.74E-04	2.78E-03
Smog	kg O ₃ eq	1.99E-01	2.33E-03	2.24E-02	2.24E-01
Respiratory effects	kg PM2.5 eq	2.32E-03	3.97E-05	1.77E-04	2.54E-03
Additional environmental information					
Carcinogenics	CTUh	51.30%	0.61%	48.10%	100%
Non-carcinogenics	CTUh	73.30%	6.29%	20.42%	100%
Ecotoxicity	CTUe	82.99%	6.60%	10.41%	100%
Fossil fuel depletion	MJ surplus	1.97E+01	2.43E-01	4.57E-01	2.04E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.63E+00	2.81E-03	4.80E-01	2.12E+00
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.68E+00	2.81E-03	4.80E-01	2.17E+00
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.42E+02	1.83E+00	8.14E+00	1.52E+02
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	1.59E+02	1.83E+00	8.14E+00	1.69E+02
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	6.12E+00	8.98E-03	4.47E-01	6.57E+00
Abiotic depletion (fossil fuels)	MJ, LHV	1.46E+02	1.72E+00	6.90E+00	1.55E+02
Output flows and waste category indicators					
Hazardous waste disposed	kg	6.96E-02	1.09E-03	1.58E-03	7.23E-02
Non-hazardous waste disposed	kg	2.21E+00	4.40E-03	6.40E-01	2.86E+00
High-level radioactive waste, conditioned, to final repository	kg	9.06E-06	2.05E-08	7.58E-07	9.84E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	2.07E-05	3.99E-08	6.45E-06	2.72E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-5.72E-04	0	-3.55E-04	-9.27E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	5.72E-04	5.72E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LSR (Fort Worth, TX)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	5.26E+00	5.91E-01	6.22E-01	6.48E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-5.72E-04	0	5.72E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	5.26E+00	5.91E-01	6.21E-01	6.48E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	5.11E+00	5.84E-01	7.42E-01	6.44E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	5.11E+00	5.84E-01	7.41E-01	6.44E+00
Ozone depletion	kg CFC-11 eq	1.90E-07	9.06E-09	2.81E-09	2.01E-07
Acidification	kg SO ₂ eq	1.49E-02	6.94E-04	1.48E-03	1.71E-02
Eutrophication	kg N eq	2.49E-03	5.07E-05	2.71E-04	2.81E-03
Smog	kg O ₃ eq	1.99E-01	1.07E-02	2.22E-02	2.32E-01
Respiratory effects	kg PM2.5 eq	2.32E-03	1.82E-04	1.74E-04	2.68E-03
Additional environmental information					
Carcinogenics	CTUh	50.25%	2.72%	47.02%	100%
Non-carcinogenics	CTUh	60.00%	23.59%	16.41%	100%
Ecotoxicity	CTUe	67.13%	24.47%	8.40%	100%
Fossil fuel depletion	MJ surplus	1.97E+01	1.12E+00	4.48E-01	2.13E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.64E+00	1.29E-02	5.22E-01	2.18E+00
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.68E+00	1.29E-02	5.22E-01	2.22E+00
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.42E+02	8.40E+00	7.85E+00	1.58E+02
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	1.59E+02	8.40E+00	7.85E+00	1.76E+02
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	6.12E+00	4.12E-02	2.90E-01	6.45E+00
Abiotic depletion (fossil fuels)	MJ, LHV	1.46E+02	7.89E+00	6.82E+00	1.61E+02
Output flows and waste category indicators					
Hazardous waste disposed	kg	6.96E-02	1.78E-03	1.58E-03	7.30E-02
Non-hazardous waste disposed	kg	2.21E-03	7.22E-06	6.74E-04	2.89E-03
High-level radioactive waste, conditioned, to final repository	kg	9.06E-06	9.42E-08	7.58E-07	9.91E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	2.07E-05	1.83E-07	4.52E-06	2.54E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-5.72E-04	0	-3.55E-04	-9.27E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	5.72E-04	5.72E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ LSR (Hampshire, IL)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	5.26E+00	3.61E-01	6.22E-01	6.25E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	-5.72E-04	0	5.72E-04	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	5.26E+00	3.61E-01	6.21E-01	6.25E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	5.11E+00	3.57E-01	7.42E-01	6.21E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	-1.20E-04	0	1.20E-04	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	5.11E+00	3.57E-01	7.41E-01	6.21E+00
Ozone depletion	kg CFC-11 eq	1.90E-07	5.53E-09	2.81E-09	1.98E-07
Acidification	kg SO ₂ eq	1.49E-02	4.23E-04	1.48E-03	1.68E-02
Eutrophication	kg N eq	2.49E-03	3.10E-05	2.67E-04	2.79E-03
Smog	kg O ₃ eq	1.99E-01	6.51E-03	2.22E-02	2.28E-01
Respiratory effects	kg PM2.5 eq	2.32E-03	1.11E-04	1.74E-04	2.61E-03
Additional environmental information					
Carcinogenics	CTUh	50.80%	1.68%	47.52%	100%
Non-carcinogenics	CTUh	66.11%	15.86%	18.03%	100%
Ecotoxicity	CTUe	74.21%	16.51%	9.28%	100%
Fossil fuel depletion	MJ surplus	1.97E+01	6.81E-01	4.48E-01	2.09E+01
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	1.64E+00	7.85E-03	5.22E-01	2.17E+00
Renewable primary resources with energy content used as material	MJ, NCV	4.08E-02	0	0	4.08E-02
Total use of renewable primary resources with energy content	MJ, NCV	1.68E+00	7.85E-03	5.22E-01	2.21E+00
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.42E+02	5.13E+00	7.85E+00	1.55E+02
Non-renewable primary resources with energy content used as material	MJ, NCV	1.73E+01	0	0	1.73E+01
Total use of non-renewable primary resources with energy content	MJ, NCV	1.59E+02	5.13E+00	7.85E+00	1.72E+02
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	6.12E+00	2.51E-02	2.90E-01	6.43E+00
Abiotic depletion (fossil fuels)	MJ, LHV	1.46E+02	4.81E+00	6.82E+00	1.58E+02
Output flows and waste category indicators					
Hazardous waste disposed	kg	6.19E+01	1.61E+00	2.57E-01	6.38E+01
Non-hazardous waste disposed	kg	4.27E-15	0	1.28E+00	1.28E+00
High-level radioactive waste, conditioned, to final repository	kg	9.06E-06	5.75E-08	7.58E-07	9.88E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	2.07E-05	1.12E-07	4.52E-06	2.53E-05
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	-5.72E-04	0	-3.55E-04	-9.27E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	5.72E-04	5.72E-04
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ TMP (Cartersville, GA)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	8.79E-01	2.98E-02	1.34E-01	1.04E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	0	0	0	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	8.79E-01	2.98E-02	1.34E-01	1.04E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	8.56E-01	2.94E-02	1.52E-01	1.04E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	0	0	0	0

GWP, TRACI 2.1 ^{-FOSSIL}	kg CO ₂ eq	8.56E-01	2.94E-02	1.52E-01	1.04E+00
Ozone depletion	kg CFC-11 eq	2.99E-08	4.56E-10	8.22E-10	3.11E-08
Acidification	kg SO ₂ eq	2.79E-03	3.49E-05	3.20E-04	3.15E-03
Eutrophication	kg N eq	6.28E-04	2.56E-06	4.75E-05	6.78E-04
Smog	kg O ₃ eq	3.76E-02	5.38E-04	4.84E-03	4.29E-02
Respiratory effects	kg PM2.5 eq	4.62E-04	9.16E-06	3.83E-05	5.09E-04
Additional environmental information					
Carcinogenics	CTUh	52.98%	0.66%	46.36%	100%
Non-carcinogenics	CTUh	70.71%	7.53%	21.76%	100%
Ecotoxicity	CTUe	78.36%	9.06%	12.59%	100%
Fossil fuel depletion	MJ surplus	2.97E+00	5.62E-02	1.01E-01	3.12E+00
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	3.48E-01	6.48E-04	1.97E-01	5.46E-01
Renewable primary resources with energy content used as material	MJ, NCV	0	0	0	0
Total use of renewable primary resources with energy content	MJ, NCV	3.48E-01	6.48E-04	1.97E-01	5.46E-01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.89E+01	4.23E-01	1.76E+00	2.11E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	4.92E+00	0	0	4.92E+00
Total use of non-renewable primary resources with energy content	MJ, NCV	2.38E+01	4.23E-01	1.76E+00	2.60E+01
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	1.89E+00	3.08E-03	1.04E-01	2.00E+00
Abiotic depletion (fossil fuels)	MJ, LHV	2.18E+01	3.98E-01	1.49E+00	2.36E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	8.34E+00	1.33E-01	6.63E-02	8.54E+00
Non-hazardous waste disposed	kg	2.27E-13	0	3.10E+02	3.10E+02
High-level radioactive waste, conditioned, to final repository	kg	1.90E-06	4.74E-09	1.57E-07	2.06E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	4.31E-06	9.21E-09	1.61E-06	5.94E-06
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	0	0	-3.55E-04	-3.55E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	0	0
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ TMP (Fort Worth, TX)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	8.79E-01	5.41E-02	1.33E-01	1.07E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	0	0	0	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	8.79E-01	5.41E-02	1.33E-01	1.07E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	8.56E-01	5.35E-02	1.50E-01	1.06E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	0	0	0	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	8.56E-01	5.35E-02	1.50E-01	1.06E+00
Ozone depletion	kg CFC-11 eq	2.99E-08	8.29E-10	6.44E-10	3.13E-08
Acidification	kg SO ₂ eq	2.79E-03	6.35E-05	3.18E-04	3.17E-03
Eutrophication	kg N eq	6.28E-04	4.64E-06	4.69E-05	6.80E-04
Smog	kg O ₃ eq	3.76E-02	9.76E-04	4.78E-03	4.33E-02
Respiratory effects	kg PM2.5 eq	4.62E-04	1.66E-05	3.78E-05	5.16E-04
Additional environmental information					
Carcinogenics	CTUh	52.74%	1.20%	46.06%	100%
Non-carcinogenics	CTUh	66.88%	12.94%	20.19%	100%
Ecotoxicity	CTUe	72.99%	15.32%	11.69%	100%
Fossil fuel depletion	MJ surplus	2.97E+00	1.02E-01	9.90E-02	3.17E+00
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	3.48E-01	1.18E-03	2.07E-01	5.56E-01
Renewable primary resources with energy content used as material	MJ, NCV	0	0	0	0
Total use of renewable primary resources with energy content	MJ, NCV	3.48E-01	1.18E-03	2.07E-01	5.56E-01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.89E+01	7.69E-01	1.70E+00	2.14E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	4.92E+00	0	0	4.92E+00
Total use of non-renewable primary resources with energy content	MJ, NCV	2.38E+01	7.69E-01	1.70E+00	2.63E+01
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	1.89E+00	5.59E-03	6.94E-02	1.97E+00
Abiotic depletion (fossil fuels)	MJ, LHV	2.18E+01	7.22E-01	1.48E+00	2.40E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	8.34E+00	2.42E-01	6.64E-02	8.65E+00
Non-hazardous waste disposed	kg	2.27E-13	0	2.86E+02	2.86E+02
High-level radioactive waste, conditioned, to final repository	kg	1.90E-06	8.62E-09	1.57E-07	2.06E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	4.31E-06	1.67E-08	9.59E-07	5.29E-06
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	0	0	-3.55E-04	-3.55E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	0	0
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0

LCIA results, resource use, output and waste flows, and carbon emissions & removals per declared unit (1m2) of AIR-SHIELD™ TMP (Hampshire, IL)

Parameter	Unit	A1	A2	A3	Total
LCIA results					
GWP, IPCC _{TOTAL}	kg CO ₂ eq	8.79E-01	7.83E-02	1.36E-01	1.09E+00
GWP, IPCC _{BIOGENIC}	kg CO ₂ eq	0	0	0	0
GWP, IPCC _{FOSSIL}	kg CO ₂ eq	8.79E-01	7.83E-02	1.36E-01	1.09E+00
GWP, TRACI 2.1 _{TOTAL}	kg CO ₂ eq	8.56E-01	7.74E-02	1.53E-01	1.09E+00
GWP, TRACI 2.1 _{BIOGENIC}	kg CO ₂ eq	0	0	0	0
GWP, TRACI 2.1 _{FOSSIL}	kg CO ₂ eq	8.56E-01	7.74E-02	1.53E-01	1.09E+00
Ozone depletion	kg CFC-11 eq	2.99E-08	1.20E-09	1.24E-09	3.23E-08
Acidification	kg SO ₂ eq	2.79E-03	9.19E-05	3.57E-04	3.24E-03
Eutrophication	kg N eq	6.28E-04	6.72E-06	5.04E-05	6.86E-04
Smog	kg O ₃ eq	3.76E-02	1.41E-03	5.06E-03	4.40E-02
Respiratory effects	kg PM2.5 eq	4.62E-04	2.41E-05	4.00E-05	5.26E-04
Additional environmental information					
Carcinogenics	CTUh	52.07%	1.71%	46.21%	100%
Non-carcinogenics	CTUh	62.84%	17.60%	19.56%	100%
Ecotoxicity	CTUe	68.23%	20.74%	11.03%	100%
Fossil fuel depletion	MJ surplus	2.97E+00	1.48E-01	9.31E-02	3.21E+00
Resource use indicators					
Renewable primary energy used as energy carrier (fuel)	MJ, NCV	3.48E-01	1.71E-03	1.87E-01	5.36E-01
Renewable primary resources with energy content used as material	MJ, NCV	0	0	0	0
Total use of renewable primary resources with energy content	MJ, NCV	3.48E-01	1.71E-03	1.87E-01	5.36E-01
Non-renewable primary resources used as an energy carrier (fuel)	MJ, NCV	1.89E+01	1.11E+00	1.80E+00	2.18E+01
Non-renewable primary resources with energy content used as material	MJ, NCV	4.92E+00	0	0	4.92E+00
Total use of non-renewable primary resources with energy content	MJ, NCV	2.38E+01	1.11E+00	1.80E+00	2.67E+01
Secondary materials	kg	0	0	0	0
Renewable secondary fuels	MJ, NCV	0	0	0	0
Non-renewable secondary fuels	MJ, NCV	0	0	0	0
Recovered energy	MJ, NCV	0	0	0	0
Use of net fresh water resources	m3	1.89E+00	8.10E-03	7.99E-02	1.98E+00
Abiotic depletion (fossil fuels)	MJ, LHV	2.18E+01	1.05E+00	1.49E+00	2.43E+01
Output flows and waste category indicators					
Hazardous waste disposed	kg	8.34E+00	3.50E-01	6.67E-02	8.76E+00
Non-hazardous waste disposed	kg	2.27E-13	0	1.71E+02	1.71E+02
High-level radioactive waste, conditioned, to final repository	kg	1.90E-06	1.25E-08	1.57E-07	2.07E-06
Intermediate- and low-level radioactive waste, conditioned, to final repository	kg	4.31E-06	2.42E-08	1.80E-06	6.13E-06
Components for re-use	kg	0	0	0	0
Materials for recycling	kg	0	0	0	0
Materials for energy recovery	kg	0	0	0	0
Exported energy	MJ	0	0	0	0
Carbon emissions and removals					
Biogenic carbon removal from product	kg CO ₂	0	0	0	0
Biogenic carbon emission from product	kg CO ₂	0	0	0	0
Biogenic carbon removal from packaging	kg CO ₂	0	0	-3.55E-04	-3.55E-04
Biogenic carbon emission from packaging	kg CO ₂	0	0	0	0
Biogenic carbon emission from combustion of waste from renewable sources used in production processes	kg CO ₂	0	0	0	0
Calcination carbon emissions	kg CO ₂	0	0	0	0
Carbonation carbon removals	kg CO ₂	0	0	0	0
Carbon emissions from combustion of waste from non-renewable sources used in production processes	kg CO ₂	0	0	0	0



EPD

3rd-party reviewed

Transparency Report (EPD)

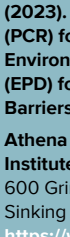
3rd-party verified

Validity: 03/xx/25 – 03/xx/30
SM-WRM – 03xx2025 – 001

LCA

This Environmental Product Declaration (EPD) was externally verified by Lindita Bushi, PhD, Senior Research Associate at Athena, in accordance with ISO 21930:2017, ASTM International. (2023). Product Category Rules (PCR) for Preparing an Environmental Product Declaration (EPD) for Water-Resistive and Air Barriers as well as ISO 14025:2006.

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Athena Sustainable Materials Institute

SUMMARY Reference PCR
ASTM PCR for Water-Resistive and Air Barriers
Regions; system boundaries
North America; Cradle-to-gate
Declared unit: 1 m²
LCIA methodology: TRACI 2.1
LCIA software; LCI database
SimaPro Developer 9.6; ecoinvent v3.10, US-EI 2.2
Public LCA:
LCA of W. R. MEADOWS Water-Resistive and Air Barriers
In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by Lindita Bushi, PhD, Senior Research Associate, at Athena.

W.R. MEADOWS, Inc.
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(800) 342-5976

Contact us

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How we make it greener

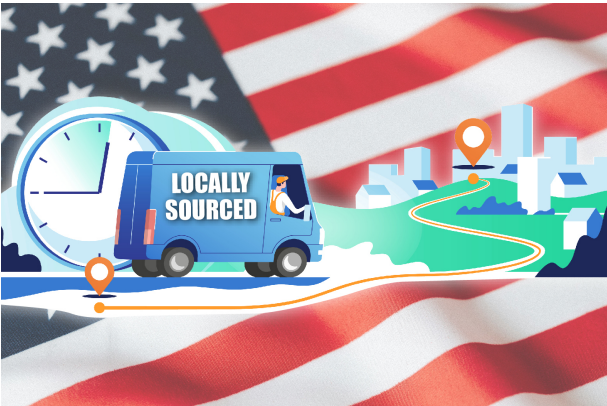
AIR-SHIELD™ LMP, LSR, TMP

Expand all

RAW MATERIALS ACQUISITION

W. R. MEADOWS sources many materials domestically. Sourcing materials locally is more sustainable and results in a smaller carbon footprint for several reasons. It reduces transportation emissions by avoiding long-distance and overseas shipping, cutting fuel use and greenhouse gas output.

Supporting domestic industries strengthens local economies and promotes sustainable practices, reducing reliance on global supply chains. Local sourcing ensures efficient logistics, as materials are transported over shorter distances, saving energy in storage and transit. Finally, it eliminates dependence on energy-intensive transport modes like cargo ships and planes, which consume large amounts of fossil fuels. Domestic sourcing supports the environment and creates more resilient, eco-friendly supply chains.



TRANSPORATION

W. R. MEADOWS manufactures in the USA.

Sourcing materials domestically can be more sustainable and result in a lower carbon footprint for several reasons:

- Reduced transportation emissions: Local sourcing eliminates the need for long-distance shipping, especially overseas transport, significantly reducing fuel consumption and greenhouse gas emissions.
- Support for local economies: Buying domestically strengthens local industries, encourages more sustainable practices, and reduces dependence on global supply chains.
- Efficient logistics: With materials sourced nearby, transportation and delivery are quicker and more efficient, requiring less energy for storage and transit.
- Improved quality control: Local suppliers are often easier to monitor, ensuring higher standards for sustainability practices in production.
- Lower reliance on energy-intensive transport modes: Overseas sourcing often depends on cargo ships and planes, which consume vast amounts of fossil fuels compared to domestic transportation.
- In short, domestic sourcing benefits the environment and helps create more resilient and eco-conscious supply chains



MANUFACTURING

W. R. MEADOWS utilizes Continuous Improvement in its daily standard work for all manufacturing activities.

Front-line supervisors are the champions of OEE (Overall Equipment Effectiveness), which plays a crucial role in reducing energy consumption in manufacturing. It highlights any inefficiencies and directs our efforts to minimize unnecessary energy use. By closely monitoring equipment performance, OEE identifies periods of downtime, slow speeds, and quality defects, which can all lead to wasted energy. Moreover, OEE-driven improvements have led Meadows to more streamlined processes, better scheduling, and reduced machine wear, all of which contribute to lower energy costs and a more sustainable operation. This proactive approach not only decreases energy consumption but also helps manufacturers meet environmental goals and reduce their carbon footprint.

Further, OEE has helped Meadows to identify and reduce scrap by providing insights into equipment performance, highlighting areas where defects or inefficiencies occur during production. With improved equipment efficiency and fewer production delays, OEE ensures that processes run optimally, resulting in fewer errors and reduced waste. Ultimately, this leads to a higher-quality product with less material being wasted during the manufacturing process.



USE & END OF LIFE

We understand the importance of end-of-life disposal. However, these products are meant to remain permanently adhered to their substrates, making them challenging to remove. As a result, they are typically landfilled during deconstruction or demolition.



SM Transparency Report (EPD)™

EPD	LCA
3rd-party reviewed	✓
Transparency Report (EPD)	
3rd-party verified	✓

Validity: 03/xx/25 – 03/xx/30
SM-WRM – 03xx2025 – 001

This Environmental Product Declaration (EPD) was externally verified by Lindita Bushi, PhD, Senior Research Associate at Athena, in accordance with ISO 21930:2017, ASTM International. (2023). Product Category Rules (PCR) for Preparing an Environmental Product Declaration (EPD) for Water-Resistive and Air Barriers as well as ISO 14025:2006.

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