



BLAZE-SHIELD® II
BLAZE-SHIELD® II HS
BLAZE-SHIELD® HP

The BLAZE-SHIELD® series of products are the industry-leading commercial and medium density Dry Mix Spray-Applied Fire Resistive Materials (SFRM).

The inorganic Portland cement-based formulations provide superior fire resistance for structural steel and concrete in commercial construction environments, particularly when exposure to severe weather conditions during the construction phase is necessary.



Performance dashboard

Features & functionality

BLAZE-SHIELD® II: Commercial Density SFRM with exceptionally high recycled content, providing significant LEED credits.

BLAZE-SHIELD® II HS: Commercial Density SFRM formulated to satisfy IBC minimum bond strength requirement of 430 psf for buildings up to 420' in height.

BLAZE-SHIELD® HP: Medium Density formulation suitable to remain exposed to extreme weather during construction, providing flexibility to sequencing and scheduling of projects.

BLAZE-SHIELD® products are the only commercial and medium density products classified as "investigated for exterior use" by UL.

Visit Isolotek for more product information:
[BLAZE-SHIELD® II](#), [BLAZE-SHIELD® II HS](#),
[BLAZE-SHIELD® HP](#)

MasterFormat® 07 81 00

CAFCO SFRM Guide Spec
For spec help, [contact us](#) or call 800-631-9600

Environment & materials

Improved by:

Tested to meet (CDPH) Standard Method v1.1 & EPA Method 24 for VOC's

Post-industrial recycled content used

Certifications, rating systems & disclosures:

Declare, Red List Free ([BLAZE-SHIELD® Series products](#))

Health Product Declaration ([BLAZE-SHIELD® II](#), [BLAZE-SHIELD® II HS](#), [BLAZE-SHIELD® HP](#))

Cellulosic – ANSI/UL263 (ASTM E119) – Fire Tests of Building Construction and Materials

UL Classification Mark

Further explanatory materials may be obtained from:
[Sustainable Minds](#)

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

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



SM Transparency Report (EPD)™ + Material Health Overview™

VERIFICATION LCA

3rd-party reviewed

Transparency Report (EPD)

3rd-party verified

Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation

Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by [Reviewer Name] (Ecoform).

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SUMMARY

Reference PCR

Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries

Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability

North America

Declared unit: 1,000 kg

LCIA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCIA software; LCI database

SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCIA conducted by: Sustainable Minds

Public LCA:

LCA of Isolotek Passive Fire Protection Products

EPD holder:

Isolotek International

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Contact us

LCA results & interpretation

BLAZE-SHIELD® II, II HS & HP

BLAZE-SHIELD® II

BLAZE-SHIELD® II HS

BLAZE-SHIELD® HP

EPD additional content

Material health

Scope and summary

Cradle to gate Cradle to gate with options Cradle to grave

Application

BLAZE-SHIELD® II is industry-leading commercial density Dry Mix Spray-Applied Fire Resistive Material (SFRM). It is Portland cement and mineral wool based applied fireproofing material available in commercial densities, as well as with high bonding capabilities to satisfy the International Building Code (IBC) bond strength requirement for buildings up to 420 ft in height.

Declared unit

1,000 kg of spray-applied fire-resistive material, packaging included.

Manufacturing activities

Products are manufactured by blending the specified bulking agent with a number of product-specific binders to achieve prescribed fire rating performance in the field. Finished goods are packaged in individual bags, stacked on pallets, and stretch wrapped before delivery to job sites.

Manufacturing data

Reporting period: January 2024 – December 2024

Locations: Huntington, IN

Distribution and installation scenarios

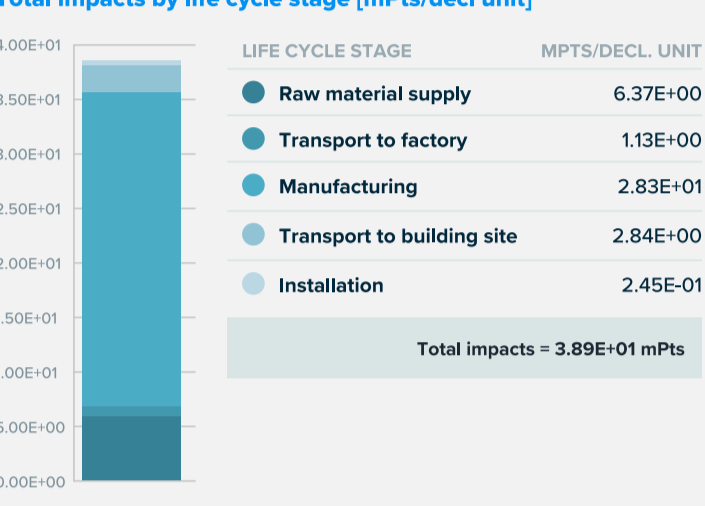
The product belongs to the CAFCO 300 SFRM subcategory, as the product density falls within the range of 15–20 pcf (240–320 kg/m³). Distribution from the manufacturing facility to the construction site is assumed to be 500 km (311 miles) using a single unit truck with an empty backhaul. 1.377 m³ of water and 6.3 kWh of electricity is assumed to be consumed during installation.

No gasoline or diesel-powered equipment is assumed to be used during installation. Therefore, the net calorific value (i.e., Lower Heating Value, LHV) of fuels is considered to be zero in A5.

Material composition by wt%

PART	WT%
Feldspar	60-70%
Recycled levy slag	10-20%
Portland Cement Type 1L10	10-20%
Plaster of Paris	0-3%

Total impacts by life cycle stage [mPts/decl unit]



What's causing the greatest impacts

All life cycle stages

The environmental impacts are primarily driven by the manufacturing phase. The stage dominates across all impact categories except for the non-carcinogens category. Following this, the raw material supply phase is the second-largest contributor across most categories.

The raw material transportation and transport to the building site phases contribute comparable levels of impact. Ultimately, the installation stage results in the lowest overall impacts.

Raw material supply

The raw material supply phase is the second largest contributor to environmental impacts, accounting for roughly 16% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is driven primarily by the use of Portland cement, which is responsible for about 90% of CO₂-equivalent emissions within this phase.

Across most other impact categories, the raw material supply phase also has a considerable influence, contributing 10–30% of total impacts, with the exception of the non-carcinogens category.

Transport to factory and transport to building site

The transport to factory and transport to building site phases are more strongly linked to the non-carcinogens category. While these two phases each contribute less than 10% to most other impact categories, their influence on the non-carcinogens impact category is greater. The transport to factory phase accounts for about 17%, and the transport to building site phase contributes roughly 43% of total non-carcinogenic impacts. This elevated contribution is primarily driven by the transport of raw materials and finished products, which generates nitrogen oxides (NO_x) and particulate matter, both of which are known to cause potential non-carcinogenic health effects.

Manufacturing

The manufacturing phase is the most significant contributor, accounting for over 70% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is largely driven by the use of coke-fired furnaces needed to melt recycled slag and rock into mineral wool. The manufacturing stage is also the dominant contributor, accounting for 50–90% of the total impacts in most categories. In the non-carcinogenic category, it ranks as the second-largest contributor, with approximately 30% of the impact attributed to this phase.

Installation

The installation phase has a minimal overall impact. Its contribution to the global warming potential is less than 1%. In the acidification, ecotoxicity, and freshwater eutrophication categories, approximately 1% of the impact originates from phase A5. Across all other impact categories, this phase contributes even less.

Embodied carbon

Embodied carbon can be defined as the cradle-to-gate (A1-A3) IPCC_{Total} global warming potential impacts. The embodied carbon per declared unit of BLAZE-SHIELD® II is 1.16E+03 kg CO₂-eq for Huntington.

How we're making it greener

Isolatek International is committed to legal compliance and ethical business practices in all of our operations. Isolatek's vendors must act in accordance with the applicable statutory and international standards regarding environmental protection. Isolatek's vendors must minimize environmental pollution and make continuous improvements in environmental protection.

Isolatek's vendors must set up or use a reasonable environmental management system. In Isolatek's purchase arrangements, vendors must observe all applicable laws of their country and international standards, including but not limited to laws and standards relating to the environment, as well as health and safety.

[See how we make it greener](#)

LCA results

LIFE CYCLE STAGE	RAW MATERIAL SUPPLY	TRANSPORTATION	MANUFACTURING	TRANSPORTATION	INSTALLATION
Information modules: Included (X) Excluded (MND)*	(X) A1 Raw Material extraction and upstream processing	(X) A2 Transport to factory	(X) A3 Manufacturing	(X) A4 Transport to building site	(X) A5 Installation
*Modules B, C, and D are excluded.					

SM Single Score [Learn about SM Single Score results](#)

Impacts per declared unit	6.37E+00 mPts	1.13E+00 mPts	2.83E+01 mPts	2.84E+00 mPts	2.45E-01 mPts
Materials or processes contributing >20% to total impacts in each life cycle stage	Raw extraction and upstream manufacturing.	Truck and rail transportation used to transport raw materials to manufacturing site.	Energy and ancillary materials required to make the passive fire protection product.	Truck and rail transportation used to transport finished products to construction site.	Energy and water used for installation.

TRACI v2.2 results per declared unit - BLAZE-SHIELD® II produced in Huntington, IN

LIFE CYCLE STAGE	A1 RAW MATERIAL SUPPLY	A2 TRANSPORT	A3 MANUFACTURING	A4 TRANSPORT TO BUILDING SITE	A5 INSTALLATION	
Ecological damage						
Impact category	Unit					
GWP, IPCC _{Total}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	5.55E+00
GWP, IPCC _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, IPCC _{Fossil}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	5.55E+00
GWP, IPCC _{Luluc}	kg CO ₂ eq	4.05E-02	8.77E-04	3.04E-02	2.21E-03	3.19E-03
GWP, TRACI _{total}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.49E+00
GWP, TRACI _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, TRACI _{Fossil}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.49E+00
Ozone depletion	kg CFC-11 eq	8.28E-07	2.22E-07	5.43E-06	5.59E-07	1.87E-08
Acidification	kg SO ₂ eq	4.25E-07	6.35E-09	1.10E-06	1.60E-08	1.97E-08
Marine eutrophication	kg N eq	9.70E-02	1.28E-02	2.14E-01	3.22E-02	1.39E-03
Freshwater eutrophication	kg P eq	9.38E-04	5.22E-05	1.16E-02	1.32E-04	1.44E-04

Human health damage

Impact category	Unit					
Smog	kg O ₃ eq	5.12E-01	5.63E-02	4.69E+00	1.42E-01	1.29E-02
Respiratory effects	kg PM _{2.5} eq	8.87E-06	2.51E-06	5.37E-05	6.32E-06	2.71E-07

Additional environmental information

Impact category	Unit					
Carcinogenics	CTU _h	1.11E+01	1.52E+00	2.43E+01	3.83E+00	1.60E-01
Non-carcinogenics	CTU _h	2.93E+01	5.20E+01	9.37E+01	1.31E+02	2.20E+00
Ecotoxicity	CTU _e	7.31E-02	6.69E-03	5.75E-01	1.68E-02	9.17E-03

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.

References

LCA Background Report

LCA of Isolatek International Passive Fire Protection Products (public version), Isolatek 2025. Developed using the TRACI v2.2, IPCC 2021 AR6, CML, and Cumulative Energy Demand (LHV) impact assessment methodologies, SimaPro Craft 10.2 software, and ecoinvent v3.11 database.

ISO 14025, "Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services"

ISO 21930:2007, "Sustainability in Building Construction – Environmental Declaration of Building Products" serves as the core PCR.

Smart EPD Part A product category rules for building and construction products and services; Version 1.2, March 2025. PCR review conducted by Jack Geibig (chair, jgeibig@ecoform.com); Terrie Boguski; and Hugues Imbeault-Tétreault.

Smart EPD Part B product category rules for Spray-applied Fire-Resistive Materials (SFRM); Version 4.0, January 2025. PCR review conducted by Thomas Gloria, PhD (chair, t.gloria@industrial-ecology.com); Karl Houser; and Jack Geibig.

Smart EPD General Program Instructions

Download PDF SM Transparency Report/ EPD

SM Transparency Reports (TR) are ISO 14025 Type III environmental declarations (EPD) that enable purchasers and users to compare the potential environmental performance of products on a life cycle basis. They are designed to present information transparently to make the limitations of comparability more understandable. Environmental declarations of products that conform to the same PCR and include the same life cycle stages, but are made by different manufacturers, may not sufficiently align to support direct comparisons. They therefore cannot be used as comparative assertions unless the conditions as defined in ISO 14025 Section 6.7.2. "Requirements for Comparability" are satisfied. In order to support comparative assertions, this EPD meets all comparability requirements stated in ISO 14025:2006. However, differences in certain assumptions, data quality, and variability between LCA data sets may still exist. 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. EPDs are only comparable if they conform with ISO 21930, this sub-category PCR, include all relevant information modules and are based on equivalent scenarios with respect to the construction works context. Some LCA impact categories and inventory items are still under development and can have high levels of uncertainty. The science supporting this additional environmental information is still under development and may have high levels of uncertainty that preclude international acceptance pending further development. Use caution when interpreting data in this category. To promote uniform guidance on the data collection, calculation, and reporting of results, the ACLCA methodology (ACLCA 2019) was used. The environmental impact results of products in this document are based on a declared unit and therefore do not provide sufficient information to establish comparisons. The results should not be used for comparisons without knowledge of how the physical properties of the product impact the precise function at the construction level. The environmental impact results shall be converted to a functional unit basis before any comparison is attempted. A manufacturer shall not make claims based on an industry-average EPD which leads the market to believe the industry-average is representative of manufacturer-specific or product-specific results.

Rating systems

The intent is to reward project teams for selecting products from manufacturers who have verified improved life-cycle environmental performance.

LEED BD+C: New Construction | v4 - LEED v4

Building product disclosure and optimization

Environmental product declarations

<input type="radio"/> Industry-wide (generic) EPD	½ product
<input checked="" type="radio"/> Product-specific Type III EPD	1 product

LEED BD+C: New Construction | v4.1 - LEED v4.1

Building product disclosure and optimization

Environmental product declarations

<input type="radio"/> Industry-wide (generic) EPD	1 product
<input checked="" type="radio"/> Product-specific Type III EPD	1.5 products

Green Globes for New Construction and Sustainable Interiors

Materials and resources

- NC 3.5.1.2 Path B: Prescriptive Path for Building Core and Shell
- NC 3.5.2.2 and SI 4.1.2 Path B: Prescriptive Path for Interior Fit-outs

BREEM New Construction 2018

Mat 02 - Environmental impacts from construction products

Environmental Product Declarations (EPD)

<input type="radio"/> Industry-average EPD	.5 points
<input type="radio"/> Multi-product specific EPD	.75 points
<input checked="" type="radio"/> Product-specific EPD	1 point

SM Transparency Report (EPD)™ + Material Health Overview™

3rd-party reviewed LCA

3rd-party verified Transparency Report (EPD)

3rd-party verified

Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation

Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by [Reviewer Name] (Ecoform).

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SUMMARY

Reference PCR

Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries

Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability

North America

Declared unit: 1,000 kg

LCIA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCIA software; LCI database
SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCI conducted by: Sustainable Minds

Public LCA:
LCA of Isolatek Passive Fire Protection Products

EPD holder:
Isolatek International

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Contact us

LCA results & interpretation

BLAZE-SHIELD® II, II HS & HP

BLAZE-SHIELD® II	BLAZE-SHIELD® II HS	BLAZE-SHIELD® HP	EPD additional content	Material health
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Scope and summary

- Cradle to gate Cradle to gate with options Cradle to grave

Application

BLAZE-SHIELD® II HS is industry-leading commercial density Dry Mix Spray-Applied Fire Resistive Material (SFRM). It is Portland cement and mineral wool based applied fireproofing material available in commercial densities, as well as with high bonding capabilities to satisfy the International Building Code (IBC) bond strength requirement for buildings up to 420 ft in height.

Declared unit

1,000 kg of spray-applied fire-resistive material, packaging included.

Manufacturing activities

Products are manufactured by blending the specified bulking agent with a number of product-specific binders to achieve prescribed fire rating performance in the field. Finished goods are packaged in individual bags, stacked on pallets, and stretch wrapped before delivery to job sites.

Manufacturing data

Reporting period: January 2024 – December 2024

Locations: Huntington, IN

Distribution and installation scenarios

The product belongs to the CAFCO 300 SFRM subcategory, as the product density falls within the range of 15–20 pcf (240–320 kg/m³). Distribution from the manufacturing facility to the construction site is assumed to be 500 km (311 miles) using a single unit truck with an empty backhaul. 1,377 m³ of water and 6.3 kWh of electricity is assumed to be consumed during installation.

No gasoline or diesel-powered equipment is assumed to be used during installation. Therefore, the net calorific value (i.e., Lower Heating Value, LHV) of fuels is considered to be zero in A5.

What's causing the greatest impacts

All life cycle stages

The environmental impacts are primarily driven by the manufacturing phase. The stage dominates across all impact categories except for the non-carcinogenics category. Following this, the raw material supply phase is the second-largest contributor across most categories.

The raw material transportation and transport to the building site phases contribute comparable levels of impact. Ultimately, the installation stage results in the lowest overall impacts.

Raw material supply

The raw material supply phase is the second largest contributor to environmental impacts, accounting for roughly 16% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is driven primarily by the use of Portland cement, which is responsible for about 90% of CO₂-equivalent emissions within this phase.

Across most other impact categories, the raw material supply phase also has a considerable influence, contributing 10–30% of total impacts, with the exception of the non-carcinogenics category.

Transport to factory and transport to building site

The transport to factory (A2) and transport to building site (A4) phases contribute significantly to the non-carcinogenics impact category. Specifically, the A2 phase accounts for approximately 17%, while the A4 phase contributes around 43% of the total non-carcinogenics impacts. This contribution is primarily driven by the transport of raw materials and finished products, which results in the emission of nitrogen oxides (NO_x) and particulate matter, both of which are known to cause potential non-carcinogenic health effects.

That said, outside of the non-carcinogenics category, the A2 and A4 phases generally exhibit relatively lower impacts across most other environmental impact categories.

Manufacturing

The manufacturing phase is the most significant contributor, accounting for over 70% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is largely driven by the use of coke-fired furnaces needed to melt recycled slag and rock into mineral wool. The manufacturing stage is also the dominant contributor, accounting for 50–90% of the total impacts in most categories. In the non-carcinogenic category, it ranks as the second-largest contributor, with approximately 30% of the impact attributed to this phase.

Installation

The installation phase has a minimal overall impact. Its contribution to the global warming potential is less than 1%. In the acidification, ecotoxicity, and freshwater eutrophication categories, approximately 1% of the impact originates from phase A5. Across all other impact categories, this phase contributes even less.

Embodied carbon

Embodied carbon can be defined as the cradle-to-gate (A1-A3) IPCC_{Total} global warming potential impacts. The embodied carbon per declared unit of BLAZE-SHIELD® II HS is 1.16E+03 kg CO₂-eq for Huntington.

How we're making it greener

Isolatak International is committed to legal compliance and ethical business practices in all of our operations. Isolatak's vendors must act in accordance with the applicable statutory and international standards regarding environmental protection. Isolatak's vendors must minimize environmental pollution and make continuous improvements in environmental protection.

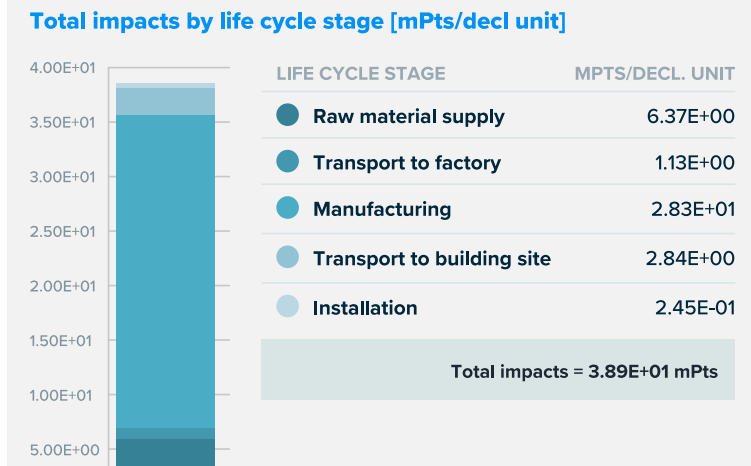
Isolatak's vendors must set up or use a reasonable environmental management system. In Isolatak's purchase arrangements, vendors must observe all applicable laws of their country and international standards, including but not limited to laws and standards relating to the environment, as well as health and safety.

[See how we make it greener](#)

Material composition by wt%

PART	WT%
Feldspar	60-70%
Recycled levay slag	10-20%
Portland Cement Type 1L10	10-20%
Plaster of Paris	0-3%

Total impacts by life cycle stage [mPts/decl unit]



LCA results

LIFE CYCLE STAGE	RAW MATERIAL SUPPLY	TRANSPORTATION	MANUFACTURING	TRANSPORTATION	INSTALLATION
Information modules: Included (X) Excluded (MND)*	(X) A1 Raw Material extraction and upstream processing	(X) A2 Transport to factory	(X) A3 Manufacturing	(X) A4 Transport to building site	(X) A5 Installation
*Modules B, C, and D are excluded.					

SM Single Score [Learn about SM Single Score results](#)

Impacts per declared unit	6.37E+00 mPts	1.13E+00 mPts	2.83E+01 mPts	2.84E+00 mPts	2.45E-01 mPts
Materials or processes contributing >20% to total impacts in each life cycle stage	Raw extraction and upstream manufacturing.	Truck and rail transportation used to transport raw materials to manufacturing site.	Energy and ancillary materials required to make the passive fire protection product.	Truck and rail transportation used to transport finished products to construction site.	Energy and water used for installation.

TRACI v2.2 results per declared unit - BLAZE-SHIELD® II HS produced in Huntington, IN

LIFE CYCLE STAGE	A1 RAW MATERIAL SUPPLY	A2 TRANSPORT	A3 MANUFACTURING	A4 TRANSPORT TO BUILDING SITE	A5 INSTALLATION	
Ecological damage						
Impact category	Unit					
GWP, IPCC _{Total}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	5.55E+00
GWP, IPCC _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, IPCC _{Fossil}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	5.55E+00
GWP, IPCC _{Luluc}	kg CO ₂ eq	4.05E-02	8.77E-04	3.04E-02	2.21E-03	3.19E-03
GWP, TRACI _{Total}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.49E+00
GWP, TRACI _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, TRACI _{Fossil}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.49E+00
Ozone depletion	kg CFC-11 eq	8.28E-07	2.22E-07	5.43E-06	5.59E-07	1.87E-08
Acidification	kg SO ₂ eq	4.25E-07	6.35E-09	1.10E-06	1.60E-08	1.97E-08
Marine eutrophication	kg N eq	9.70E-02	1.28E-02	2.14E-01	3.22E-02	1.39E-03
Freshwater eutrophication	kg P eq	9.38E-04	5.22E-05	1.16E-02	1.32E-04	1.44E-04

Human health damage

Impact category	Unit					
Smog	kg O ₃ eq	5.12E-01	5.63E-02	4.69E+00	1.42E-01	1.29E-02
Respiratory effects	kg PM _{2.5} eq	8.87E-06	2.51E-06	5.37E-05	6.32E-06	2.71E-07

Additional environmental information

Impact category	Unit					
Carcinogenics	CTU _h	1.11E+01	1.52E+00	2.43E+01	3.83E+00	1.60E-01
Non-carcinogenics	CTU _h	2.93E+01	5.20E+01	9.37E+01	1.31E+02	2.20E+00
Ecotoxicity	CTU _e	7.31E-02	6.69E-03	5.75E-01	1.68E-02	9.17E-03

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 performed. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase only when product or construction works specification 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.

References

LCA Background Report

LCA of Isolatak International Passive Fire Protection Products (public version), Isolatak 2025. Developed using the TRACI v2.2, IPCC 2021 AR6, CML, and Cumulative Energy Demand (LHV) impact assessment methodologies, SimaPro Craft 10.2 software, and ecoinvent v3.11 database.

ISO 14025, "Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services"

ISO 21930:2007, "Sustainability in Building Construction -- Environmental Declaration of Building Products" serves as the core PCR.

Smart EPD Part A product category rules for building and construction products and services; Version 1.2, March 2025. PCR review conducted by Jack Geibig (chair, jgeibig@ecoform.com); Terrie Boguski; and Hugues Imbeault-Tétreault.

Smart EPD Part B product category rules for Spray-applied Fire-Resistive Materials (SFRM); Version 4.0, January 2025. PCR review conducted by Thomas Gloria, PhD (chair, tgloria@industrial-ecology.com); Karl Houser; and Jack Geibig.

Smart EPD General Program Instructions

Download PDF SM Transparency Report/ EPD

SM Transparency Reports (TR) are ISO 14025 Type III environmental declarations (EPD) that enable purchasers and users to compare the potential environmental performance of products on a life cycle basis. They are designed to present information transparently to make the limitations of comparability more understandable. Environmental declarations of products that conform to the same PCR and include the same life cycle stages, but are made by different manufacturers, may not sufficiently align to support direct comparisons. They therefore cannot be used as comparative assertions unless the conditions as defined in ISO 14025 Section 6.7.2.

"Requirements for Comparability" are satisfied. In order to support comparative assertions, this EPD meets all comparability requirements stated in ISO 14025:2006. However, differences in certain assumptions, data quality, and variability between LCA data sets may still exist. Examples of variations: Different LCA software and background LCI datasets may lead to differences in results upstream or downstream of the life cycle stages declared. EPDs are only comparable if they conform with ISO 21930, this sub-category PCR, include all relevant information modules and are based on equivalent scenarios with respect to the construction works context. Some LCA impact categories and inventory items are still under development and can have high levels of uncertainty. The science supporting this additional environmental information is still under development and may have high levels of uncertainty that preclude international acceptance pending further development. Use caution when interpreting data in this category. To promote uniform guidance on the data collection, calculation, and reporting of results, the ACLCA methodology (ACLCA 2019) was used. The environmental impact results of products in this document are based on a declared unit and therefore do not provide sufficient information to establish comparisons. The results shall not be used for comparisons without knowledge of how the physical properties of the product impact the precise function at the construction level. The environmental impact results shall be converted to a functional unit basis before any comparison is attempted. A manufacturer shall not make claims based on an industry-average EPD which leads the market to believe the industry-average is representative of manufacturer-specific or product-specific results.

Rating systems

The intent is to reward project teams for selecting products from manufacturers who have verified improved life-cycle environmental performance.

LEED BD+C: New Construction | v4 - LEED v4

Building product disclosure and optimization

Environmental product declarations

- Industry-wide (generic) EPD ½ product
- Product-specific Type III EPD 1 product

LEED BD+C: New Construction | v4.1 - LEED v4.1

Building product disclosure and optimization

Environmental product declarations

- Industry-wide (generic) EPD 1 product
- Product-specific Type III EPD 1.5 products

Green Globes for New Construction and Sustainable Interiors

Materials and resources

- NC 3.5.1.2 Path B: Prescriptive Path for Building Core and Shell
- NC 3.5.2.2 and SI 4.1.2 Path B: Prescriptive Path for Interior Fit-outs

BREEAM New Construction 2018

Mat 02 - Environmental impacts from construction products

Environmental Product Declarations (EPD)

- Industry-average EPD .5 points
- Multi-product specific EPD .75 points
- Product-specific EPD 1 point

SM Transparency Report (EPD)™ + Material Health Overview™

VERIFICATION LCA

3rd-party reviewed
Transparency Report (EPD)

3rd-party verified

Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation

Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by [Reviewer Name] (Ecoform).

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SUMMARY

Reference PCR
Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries
Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability
North America
Declared unit: 1,000 kg

LCA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCA software; LCI database
SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCA conducted by: Sustainable Minds
Public LCA:
LCA of Isolatak Passive Fire Protection Products

EPD holder:
Isolatak International

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Contact us

LCA results & interpretation

BLAZE-SHIELD® II, II HS & HP

BLAZE-SHIELD® II	BLAZE-SHIELD® II HS	BLAZE-SHIELD® HP	EPD additional content	Material health
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Scope and summary

- Cradle to gate Cradle to gate with options Cradle to grave

Application

BLAZE-SHIELD® HP is industry-leading medium density Dry Mix Spray-Applied Fire Resistive Material (SFRM). It is Portland cement and mineral wool based applied fireproofing material available in commercial densities, as well as with high bonding capabilities to satisfy the International Building Code (IBC) bond strength requirement for buildings up to 420 ft in height.

Declared unit

1,000 kg of spray-applied fire-resistive material, packaging included.

Manufacturing activities

Products are manufactured by blending the specified bulking agent with a number of product-specific binders to achieve prescribed fire rating performance in the field. Finished goods are packaged in individual bags, stacked on pallets, and stretch wrapped before delivery to job sites.

Manufacturing data

Reporting period: January 2024 – December 2024

Locations: Huntington, IN

Distribution and installation scenarios

The product belongs to the CAFCO 400 SFRM subcategory, as the product density falls within the range of 20-35 pcf (320 – 561 kg/m³). Distribution from the manufacturing facility to the construction site is assumed to be 500 km (311 miles) using a single unit truck with an empty backhaul. 1.398 m³ of water and 7.3 kWh of electricity is assumed to be consumed during installation.

No gasoline or diesel-powered equipment is assumed to be used during installation. Therefore, the net calorific value (i.e., Lower Heating Value, LHV) of fuels is considered to be zero in A5.

What's causing the greatest impacts

All life cycle stages

The environmental impacts are primarily driven by the manufacturing phase. The stage dominates across all impact categories except for the non-carcinogens category. Following this, the raw material supply phase is the second-largest contributor across most categories.

The raw material transportation and transport to the building site phases contribute comparable levels of impact. Ultimately, the installation stage results in the lowest overall impacts.

Raw material supply

The raw material supply phase is the second largest contributor to environmental impacts, accounting for roughly 16% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is driven primarily by the use of Portland cement, which is responsible for about 90% of CO₂-equivalent emissions within this phase.

Across most other impact categories, the raw material supply phase also has a considerable influence, contributing 10–30% of total impacts, with the exception of the non-carcinogenics category.

Transport to factory and transport to building site

The transport to factory (A2) and transport to building site (A4) phases contribute significantly to the non-carcinogenics impact category. Specifically, the A2 phase accounts for approximately 17%, while the A4 phase contributes around 43% of the total non-carcinogenic impacts. This contribution is primarily driven by the transport of raw materials and finished products, which results in the emission of nitrogen oxides (NO_x) and particulate matter, both of which are known to cause potential non-carcinogenic health effects.

That said, outside of the non-carcinogenics category, the A2 and A4 phases generally exhibit relatively lower impacts across most other environmental impact categories.

Manufacturing

The manufacturing phase is the most significant contributor, accounting for over 70% of the total global warming potential under both the IPCC AR6 and TRACI 2.2 methodologies. This impact is largely driven by the use of coke-fired furnaces needed to melt recycled slag and rock into mineral wool. The manufacturing stage is also the dominant contributor, accounting for 50–90% of the total impacts in most categories. In the non-carcinogenic category, it ranks as the second-largest contributor, with approximately 30% of the impact attributed to this phase.

Installation

The installation phase has a minimal overall impact. Its contribution to the global warming potential is less than 1%. In the acidification, ecotoxicity, and freshwater eutrophication categories, approximately 1% of the impact originates from phase A5. Across all other impact categories, this phase contributes even less.

Embodied carbon

Embodied carbon can be defined as the cradle-to-gate (A1-A3) IPCC_{Total} global warming potential impacts. The embodied carbon per declared unit of BLAZE-SHIELD® HP is 1.16E+03 kg CO₂-eq for Huntington.

How we're making it greener

Isolatak International is committed to legal compliance and ethical business practices in all of our operations. Isolatak's vendors must act in accordance with the applicable statutory and international standards regarding environmental protection. Isolatak's vendors must minimize environmental pollution and make continuous improvements in environmental protection.

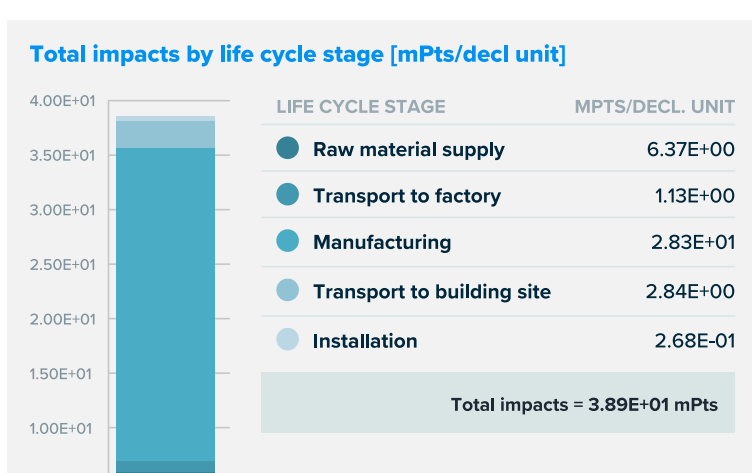
Isolatak's vendors must set up or use a reasonable environmental management system. In Isolatak's purchase arrangements, vendors must observe all applicable laws of their country and international standards, including but not limited to laws and standards relating to the environment, as well as health and safety.

[See how we make it greener](#)

Material composition by wt%

PART	WT%
Feldspar	60-70%
Recycled levy slag	10-20%
Portland Cement Type 1L10	10-20%
Plaster of Paris	0-3%

Total impacts by life cycle stage [mPts/decl unit]



LCA results

LIFE CYCLE STAGE	RAW MATERIAL SUPPLY	TRANSPORTATION	MANUFACTURING	TRANSPORTATION	INSTALLATION
Information modules: Included (X) Excluded (MND)*	(X) A1 Raw Material extraction and upstream processing	(X) A2 Transport to factory	(X) A3 Manufacturing	(X) A4 Transport to building site	(X) A5 Installation
*Modules B, C, and D are excluded.					

SM Single Score [Learn about SM Single Score results](#)

Impacts per declared unit	6.37E+00 mPts	1.13E+00 mPts	2.83E+01 mPts	2.84E+00 mPts	2.68E-01 mPts
Materials or processes contributing >20% to total impacts in each life cycle stage	Raw extraction and upstream manufacturing.	Truck and rail transportation used to transport raw materials to manufacturing site.	Energy and ancillary materials required to make the passive fire protection product.	Truck and rail transportation used to transport finished products to construction site.	Energy and water used for installation.

TRACI v2.2 results per declared unit - BLAZE-SHIELD® HP produced in Huntington, IN

LIFE CYCLE STAGE	A1 RAW MATERIAL SUPPLY	A2 TRANSPORT	A3 MANUFACTURING	A4 TRANSPORT TO BUILDING SITE	A5 INSTALLATION	
Ecological damage						
Impact category	Unit					
GWP, IPCC _{Total}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	6.04E+00
GWP, IPCC _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, IPCC _{Fossil}	kg CO ₂ eq	1.98E+02	1.65E+01	9.42E+02	4.16E+01	6.04E+00
GWP, IPCC _{Luluc}	kg CO ₂ eq	4.05E-02	8.77E-04	3.04E-02	2.21E-03	3.43E-03
GWP, TRACI _{Total}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.98E+00
GWP, TRACI _{Biogenic}	kg CO ₂ eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP, TRACI _{Fossil}	kg CO ₂ eq	1.98E+02	1.63E+01	9.33E+02	4.10E+01	5.98E+00
Ozone depletion	kg CFC-11 eq	8.28E-07	2.22E-07	5.43E-06	5.59E-07	2.01E-08
Acidification	kg SO ₂ eq	4.25E-07	6.35E-09	1.10E-06	1.60E-08	2.14E-08
Marine eutrophication	kg N eq	9.70E-02	1.28E-02	2.14E-01	3.22E-02	1.50E-03
Freshwater eutrophication	kg P eq	9.38E-04	5.22E-05	1.16E-02	1.32E-04	1.63E-04
Human health damage						
Impact category	Unit					
Smog	kg O ₃ eq	5.12E-01	5.63E-02	4.69E+00	1.42E-01	1.40E-02
Respiratory effects	kg PM _{2.5} eq	8.87E-06	2.51E-06	5.37E-05	6.32E-06	2.94E-07
Additional environmental information						
Impact category	Unit					
Carcinogenics	CTU _h	1.11E+01	1.52E+00	2.43E+01	3.83E+00	1.72E-01
Non-carcinogenics	CTU _h	2.93E+01	5.20E+01	9.37E+01	1.31E+02	2.27E+00
Ecotoxicity	CTU _e	7.31E-02	6.69E-03	5.75E-01	1.68E-02	1.04E-02

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.

References

LCA Background Report

LCA of Isolatak International Passive Fire Protection Products (public version), Isolatak 2025. Developed using the TRACI v2.2, IPCC 2021 AR6, CML, and Cumulative Energy Demand (LHV) impact assessment methodologies, SimaPro Craft 10.2 software, and ecoinvent v3.11 database.

ISO 14025, "Sustainability in buildings and civil engineering works -- Core rules for environmental product declarations of construction products and services"

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Smart EPD Part A product category rules for building and construction products and services; Version 1.2, March 2025. PCR review conducted by Jack Geibig (chair, jgeibig@ecoform.com); Terrie Boguski; and Hugues Imbeault-Tetreault.

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Rating systems

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LEED BD+C: New Construction | v4 - LEED v4

Building product disclosure and optimization

Environmental product declarations

- Industry-wide (generic) EPD ½ product
- Product-specific Type III EPD 1 product

LEED BD+C: New Construction | v4.1 - LEED v4.1

Building product disclosure and optimization

Environmental product declarations

- Industry-wide (generic) EPD 1 product
- Product-specific Type III EPD 1.5 products

Green Globes for New Construction and Sustainable Interiors

Materials and resources

- NC 3.5.1.2 Path B: Prescriptive Path for Building Core and Shell
- NC 3.5.2.2 and SI 4.1.2 Path B: Prescriptive Path for Interior Fit-outs

BREEAM New Construction 2018

Mat 02 - Environmental impacts from construction products

Environmental Product Declarations (EPD)

- Industry-average EPD .5 points
- Multi-product specific EPD .75 points
- Product-specific EPD 1 point

SM Transparency Report (EPD)™ + Material Health Overview™

VERIFICATION LCA
3rd-party reviewed
Transparency Report (EPD)

3rd-party verified
Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation
Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by [Reviewer Name] (Ecoform).

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Knoxville, TN 37932
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SUMMARY Reference PCR
Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries
Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability
North America

Declared unit: 1,000 kg

LCIA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCIA software; LCI database
SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCIA conducted by: Sustainable Minds
Public LCA:
LCA of Isolatak Passive Fire Protection Products

EPD holder:
Isolatak International

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14231 Seaway Rd., Suite 1003
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www.isolatak.com
800 631 9600

[Contact us](#)

EPD additional content

BLAZE-SHIELD® II, II HS & HP

BLAZE-SHIELD® II	BLAZE-SHIELD® II HS	BLAZE-SHIELD® HP	EPD additional content	Material health
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Data

Background This product-specific and facility-specific declaration was created by collecting annual production data. For products manufactured at multiple facilities, primary data was collected separately from each location and modeled individually. All product types are manufactured by blending the specified bulking agent with a number of product-specific binders to achieve prescribed fire rating performance in the field. Finished goods are packaged in individual bags, stacked on pallets, and stretch wrapped before delivery to job sites.

Allocation The model used in this report ensures that the sum of the allocated inputs and outputs of a unit process are 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. The manufacturing facilities included in this study all produce multiple products. Since only facility level data were available, allocation among a facility's co-products was necessary to determine the input and output flows associated with each product. Allocation of materials and energy was done on a mass basis for all products. Allocation of transportation was based on the weight of the outputs of products from each facility.

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 renewable energy was used in production beyond that accounted for in the eGRID data sets for the three facilities, and no energy was recovered. No known flows are deliberately excluded from this declaration, and no substances considered to be hazardous or toxic according to the Toxics Release Inventory (TRI) program or local regulations are present in the products. Biogenic carbon is included in reported results. Therefore, these criteria have been met.

Background LCI data sets Modeling choices were applied consistently. Except for eGRID electricity data sets, all background LCI data sets used in the study were sourced from ecoinvent v3.11.

Raw material supply [A1]

Foreground data	Background data set	Reference year	Geography
Natural gypsum	Gypsum plasterboard (RoW) gypsum plasterboard production Cut-off, U	2023	Rest of World (RoW)
Plaster of Paris	Gypsum plasterboard (RoW) gypsum plasterboard production Cut-off, U	2023	Rest of World (RoW)
Mica	Expanded vermiculite (RoW) expanded vermiculite production Cut-off, U	2023	Rest of World (RoW)
Vermiculite	Expanded vermiculite (RoW) expanded vermiculite production Cut-off, U	2023	Rest of World (RoW)
Calcium Carbonate	Calcium carbonate, precipitated (RoW) calcium carbonate production, precipitated Cut-off, U	2023	Rest of World (RoW)
Feldspar	Feldspar (RoW) feldspar production Cut-off, U	2023	Rest of World (RoW)
Bentonite Clay	Bentonite (RoW) bentonite quarry operation Cut-off, U	2023	Rest of World (RoW)
Portland Cement Type 1L10	Cement, Portland (RoW) cement production, Portland Cut-off, U	2023	Rest of World (RoW)
Recycled Cellulose	Empty data set	N/A	N/A
Recycled Levy Slag	Blast furnace slag, Recycled Content cut-off GLO	2023	Global

Transport to factory & building site [A2&A4]

Foreground data	Background data set	Reference year	Geography
Bulk tanker	transport, freight, lorry >32 metric ton, EURO4 RoW	2024	Rest of World (RoW)
Intermodal freight	transport, freight, lorry >32 metric ton, EURO4 RoW	2024	Rest of World (RoW)
53' Dry van	transport, freight, lorry >32 metric ton, EURO4 RoW	2024	Rest of World (RoW)
48" Rail container	Transport, freight train (US) market for transport, freight train Cut-off, U	2024	The U.S.

Manufacturing [A3]

Foreground data	Background data set	Reference year	Geography
Manufacturing electricity	Electricity mix, eGrid subregion, ERCT/US U	2023	The U.S.
Manufacturing electricity	Electricity mix, eGrid subregion, CAMX/US U	2023	The U.S.
Manufacturing electricity	Electricity mix, eGrid subregion, RFCW/US U	2023	The U.S.
Manufacturing electricity	Electricity mix, eGrid subregion, RFCE/US U	2023	The U.S.
Natural gas for heat production	market for heat, district or industrial, natural gas RoW	2024	Rest of World (RoW)
Coke for heat production	Heat, central or small-scale, other than natural gas (RoW) heat production, hard coal coke, stove 5-15kW Cut-off, U	2024	Rest of World (RoW)
Road transport for collecting municipal waste	Municipal waste collection service by 21 metric ton lorry (RoW) municipal waste collection service by 21 metric ton lorry Cut-off, U	2023	Rest of World (RoW)
Landfilled municipal waste	Process-specific burdens, residual material landfill (RoW) market for process-specific burdens, residual material landfill Cut-off, U	2024	Rest of World (RoW)
Waste paper incineration	Waste paperboard (GLO) treatment of waste paperboard, municipal incineration Cut-off, U	2024	Global
Waste paper landfill	Waste paperboard (RoW) treatment of waste paperboard, sanitary landfill Cut-off, U	2024	Rest of World (RoW)
Waste plastic incineration	Waste plastic, mixture (RoW) treatment of waste plastic, mixture, municipal incineration Cut-off, U	2024	Rest of World (RoW)
Waste plastic landfill	Waste plastic, mixture (RoW) treatment of waste plastic, mixture, sanitary landfill Cut-off, U	2024	Rest of World (RoW)
Kraft paper bag	Kraft paper (RoW) kraft paper production Cut-off, U	2023	Rest of World (RoW)
Plastic bag	Packaging film, low density polyethylene (RoW) production Conseq, U	2021	Rest of World (RoW)

Installation [A5]

Foreground data	Background data set	Reference year	Geography
Water use	Tap water (RoW) market for tap water Cut-off, U	2024	Rest of World (RoW)
Electricity use	Electricity, medium voltage (US) market group for electricity, medium voltage Cut-off, U	2024	The U.S.

Scenarios and additional technical information

Manufacturing [A3] The manufacturing process assumes a scrap rate of 2% (20 kg) per declared unit (1,000 kg). Prior to delivery to job sites, the finished goods are individually packaged in plastic film bags.

Plastic film bag consumption in manufacturing per declared unit

	Huntington, IN
BLAZE-SHIELD® II - Plastic film bag packaging (kg)	3
BLAZE-SHIELD® II HS- Plastic film bag packaging (kg)	3
BLAZE-SHIELD® HP - Plastic film bag packaging (kg)	3

Packaging transport and waste treatment scenarios per manufacturing facility

	Huntington, IN
Vehicle for packaging transport	53' dry van trailers
Shipping distance for packaging material (km)	3,515
Waste disposal	100% landfill
Vehicle for waste collection and transport	Garbage truck
Waste management transport distance (km)	33

Transport scenario [A4]

Name	Value	Unit
Fuel type	Diesel	
Vehicle type	Truck	
Transportation distance		
Transport distance	500	km
Capacity utilization	50	%
Capacity utilization volume factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaging products)	1	-
Gross density		
BLAZE-SHIELD® II	240	kg/m ³
BLAZE-SHIELD® II HS	240	kg/m ³
BLAZE-SHIELD® HP	320	kg/m ³

Packaging transport and waste treatment scenarios

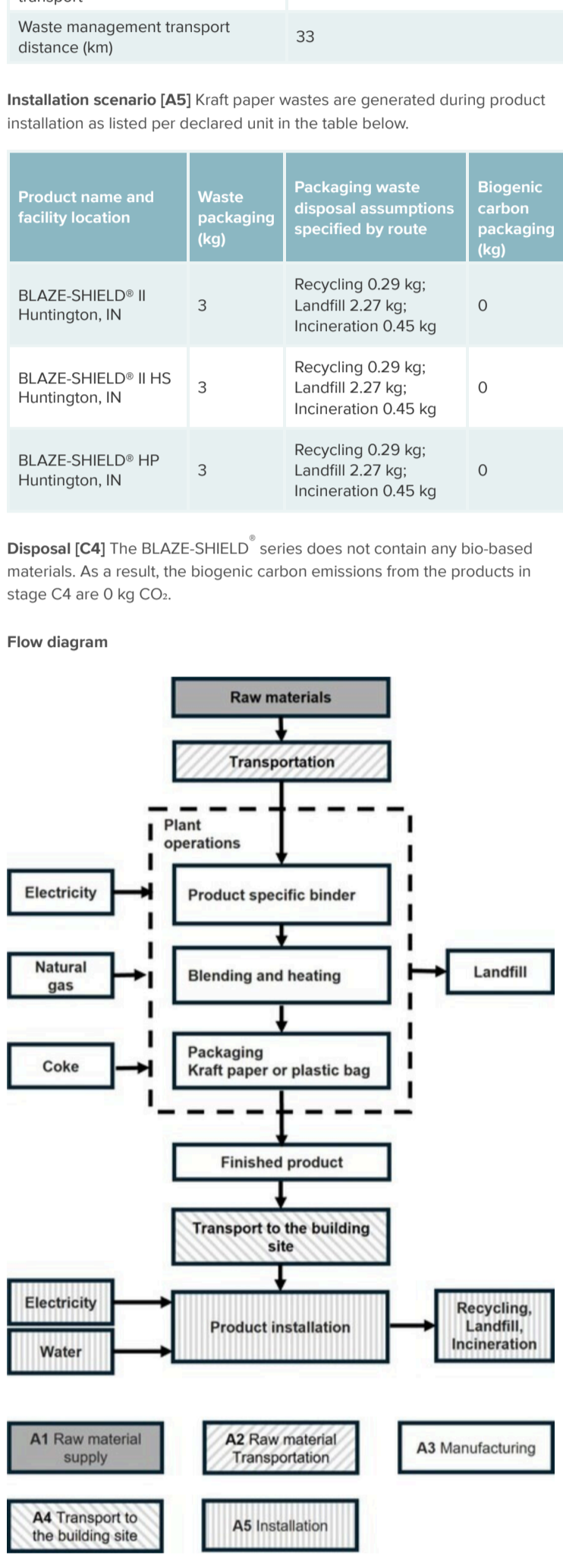
	Huntington, IN
Vehicle for packaging transport	53' dry van trailers
Shipping distance for packaging material (km)	3,515
Waste disposal	100% landfill
Vehicle for waste collection and transport	Garbage truck
Waste management transport distance (km)	33

Installation scenario [A5] Kraft paper wastes are generated during product installation as listed per declared unit in the table below.

Product name and facility location	Waste packaging (kg)	Packaging waste disposal assumptions specified by route	Biogenic carbon packaging (kg)
BLAZE-SHIELD® II Huntington, IN	3	Recycling 0.29 kg; Landfill 2.27 kg; Incineration 0.45 kg	0
BLAZE-SHIELD® II HS Huntington, IN	3	Recycling 0.29 kg; Landfill 2.27 kg; Incineration 0.45 kg	0
BLAZE-SHIELD® HP Huntington, IN	3	Recycling 0.29 kg; Landfill 2.27 kg; Incineration 0.45 kg	0

Disposal [C4] The BLAZE-SHIELD® series does not contain any bio-based materials. As a result, the biogenic carbon emissions from the products in stage C4 are 0 kg CO₂.

Flow diagram



Technical properties

- MasterSpec®, Section 078100 APPLIED FIREPROOFING (AIA)
- MasterFormat® 2014, Section 07 81 00 Applied Fireproofing (CSC, CSI)
- Unified Facilities Guide Specification, UFGS 07 81 00
- Spray-Applied Fireproofing (USACE, NAVFAC, AFCEC, NASA)
- Master Construction Specifications, 07 80 10
- Applied Fireproofing (VA)
- Code of Federal Regulations, Title 40 Protection of the Environment (EPA)
- PBS-P100 Facilities Standards for the Public Buildings Services (GSA)

Major assumptions and limitations

- US background data were used whenever possible, with rest-of-world or global data substituted as proxies as necessary.
- 1,000 kg of SFRM is the declared unit in the study, although it should be noted that the studied products are not typically produced to this size.
- LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.
- The EPD owner has sole ownership, liability, and responsibility for the EPD.

Quality The precision of the data and geographic representativeness are considered to be high. Isolatek personnel provided detailed bills of materials, and facility managers provided utility information for the manufacturing locations. Temporal and technological representativeness are considered to be high. The raw material transportation distances were calculated based on the raw material supplier addresses. The data included is considered complete. The LCA model included all known material and energy flows. The consistency of the model is considered high. The bills of materials provided by Isolatek personnel were developed for multiple internal departments and are maintained regularly.

BLAZE-SHIELD® II - Huntington, IN: LCI indicator results for resource use, output and waste flows, and carbon emissions & removals per declared unit

Impact category	Unit	A1 - Raw Material supply	A2 - Transport	A3 - Manufacturing	A4 - Transport to the Building Site	A5 - Installation	Total
Resource use indicators							
RPR _E	MJ, NCV	4.89E+01	4.32E-01	9.17E+01	1.09E+00	7.88E+00	1.50E+02
RPR _M	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPR _{total}	MJ, NCV	4.89E+01	4.32E-01	9.17E+01	1.09E+00	7.88E+00	1.50E+02
NRPR _E	MJ, NCV	1.15E+03	2.28E+02	9.02E+03	5.74E+02	7.50E+01	1.10E+04
NRPR _M	MJ, NCV	0.00E+00	0.00E+00	6.66E+01	0.00E+00	0.00E+00	6.66E+01
NRPR _{total}	MJ, NCV	1.15E+03	2.28E+02	9.08E+03	5.74E+02	7.50E+01	1.11E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	1.18E+01	4.72E-01	1.95E+01	1.19E+00	2.67E+00	3.57E+01
ADP _{fossil}	MJ, NCV	1.04E+03	7.53E+02	6.80E+03	1.06E+03	5.19E+01	9.72E+03
Output flows and waste category indicators							
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	0.00E+00	0.00E+00	2.00E+01	0.00E+00	3.00E+00	2.30E+01
HLRW	kg	1.33E-04	2.94E-06	2.06E-03	7.41E-06	6.24E-05	2.26E-03
ILLRW	kg	2.91E-04	6.19E-06	4.69E-03	1.56E-05	2.15E-04	5.22E-03
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	kg	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
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon emissions and removals							
BCRP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CBCEW	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

BLAZE-SHIELD® II HS - Huntington, IN: LCI indicator results for resource use, output and waste flows, and carbon emissions & removals per declared unit

Impact category	Unit	A1 - Raw Material supply	A2 - Transport	A3 - Manufacturing	A4 - Transport to the Building Site	A5 - Installation	Total
Resource use indicators							
RPR _E	MJ, NCV	4.89E+01	4.32E-01	9.17E+01	1.09E+00	7.88E+00	1.50E+02
RPR _M	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RPR _{total}	MJ, NCV	4.89E+01	4.32E-01	9.17E+01	1.09E+00	7.88E+00	1.50E+02
NRPR _E	MJ, NCV	1.15E+03	2.28E+02	9.02E+03	5.74E+02	7.50E+01	1.10E+04
NRPR _M	MJ, NCV	0.00E+00	0.00E+00	6.66E+01	0.00E+00	0.00E+00	6.66E+01
NRPR _{total}	MJ, NCV	1.15E+03	2.28E+02	9.08E+03	5.74E+02	7.50E+01	1.11E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	1.18E+01	4.72E-01	1.95E+01	1.19E+00	2.67E+00	3.57E+01
ADP _{fossil}	MJ, NCV	1.04E+03	7.53E+02	6.80E+03	1.06E+03	5.19E+01	9.72E+03
Output flows and waste category indicators							
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	0.00E+00	0.00E+00	2.00E+01	0.00E+00	3.00E+00	2.30E+01
HLRW	kg	1.33E-04	2.94E-06	2.06E-03	7.41E-06	6.24E-05	2.26E-03
ILLRW	kg	2.91E-04	6.19E-06	4.69E-03	1.56E-05	2.15E-04	5.22E-03
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	kg	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
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon emissions and removals							
BCRP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CBCEW	kg CO ₂	0.00E+00	0.00E+00				

NRSF	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	1.18E+01	4.62E-01	1.93E+01	1.16E+00	2.13E+00	3.48E+01
ADP_{fossil}	MJ, NCV	1.04E+03	7.53E+02	6.80E+03	1.06E+03	5.79E+01	9.72E+03
Output flows and waste category indicators							
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	0.00E+00	0.00E+00	2.00E+01	0.00E+00	3.00E+00	2.30E+01
HLRW	kg	1.33E-04	2.94E-06	2.06E-03	7.41E-06	7.10E-05	2.27E-03
ILLRW	kg	2.91E-04	6.19E-06	4.69E-03	1.56E-05	2.45E-04	5.25E-03
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	kg	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
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Carbon emissions and removals							
BCRP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CBCEW	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Acronyms used for resource use, output and waste flows, and carbon emissions & removals

Indicators	Acronyms used
Resource use indicators	
Renewable primary energy used as energy carrier (fuel)	RPR _E
Renewable primary resources with energy content used as material	RPR _M
Total use of renewable primary resources with energy content	RPR _{total}
Non-renewable primary resources used as an energy carrier (fuel)	NRPR _E
Non-renewable primary resources with energy content used as material	NRPR _M
Total use of non-renewable primary resources with energy content	NRPR _{total}
Secondary materials	SM
Renewable secondary fuels	RSF
Non-renewable secondary fuels	NRSF
Recovered energy	RE
Use of net fresh water resources	FW
Abiotic depletion potential for fossil resources	ADP _{fossil}
Output flows and waste category indicators	
Hazardous waste disposed	HWD
Non-hazardous waste disposed	NHWD
High-level radioactive waste, conditioned, to final repository	HLRW
Intermediate- and low-level radioactive waste, conditioned, to final repository	ILLRW
Components for re-use	CRU
Materials for recycling	MR
Materials for energy recovery	MER
Exported energy	EE
Carbon emissions and removals	
Biogenic Carbon Removal from Product	BCRP
Biogenic Carbon Emission from Product	BCEP
Biogenic Carbon Removal from Packaging	BCRK
Biogenic Carbon Emission from Packaging	BCEK
Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes	BCEW
Calcination Carbon Emissions	CCE
Carbonation Carbon Removals	CCR
Carbon Emissions from Combustion of Waste from Non-Renewable Sources used in Production Processes	CWNR



SM Transparency Report (EPD)[™] + Material Health Overview[™]

VERIFICATION LCA

3rd-party reviewed

Transparency Report (EPD)

3rd-party verified

Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation

Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by [Reviewer Name] (Ecoform).

Ecoform, LLC
11903 Black Road
Knoxville, TN 37932
(865) 850-1883
www.ecoform.com



SUMMARY

Reference PCR

Smart EPD[®] Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries

Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability

North America

Declared unit: 1,000 kg

LCIA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCIA software; LCI database

SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCIA conducted by: Sustainable Minds

Public LCA:

LCA of Isolatek Passive Fire Protection Products

EPD holder:

Isolatek International

Isolatek International
14231 Seaway Rd., Suite 1003
Gulfport, MS 3950
www.isolatek.com
800 631 9600

Contact us

LCA & material health results & interpretation

BLAZE-SHIELD® II, II HS & HP

BLAZE-SHIELD® II

BLAZE-SHIELD® II HS

BLAZE-SHIELD® HP

EPD additional content

Material health

Assessment scope and results

Declare™

Inventory threshold: 100 ppm

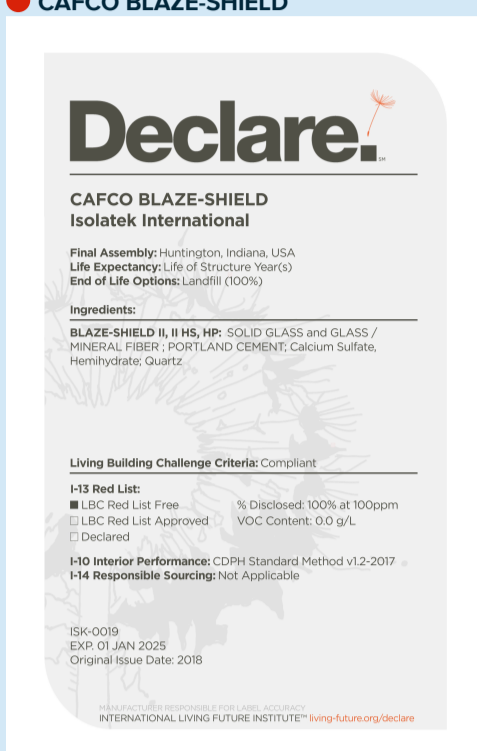
Declare level:

The Declare product database and label are used to select products that meet the LBC's stringent materials requirements, streamlining the materials specification and certification process.

- LBC Red List Free [?](#)
- LBC Red List Approved [?](#)
- Declared [?](#)

Click the label to see the full declaration.

● CAFCO BLAZE-SHIELD



Health Product Declaration®

CAFCO BLAZE-SHIELD II, II HS & HP

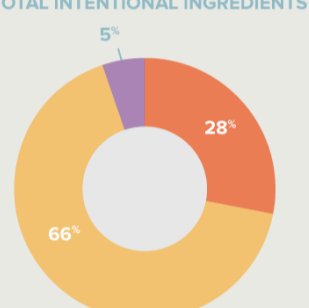
Inventory threshold: 1,000ppm

Full disclosure known hazards: Yes

Based on the selected content inventory threshold:

Characterized Screened Identified

TOTAL INTENTIONAL INGREDIENTS



GreenScreen® List Translator Scores

- List Translator Likely Benchmark 1 / Benchmark 1 [?](#)
- List Translator Possible Benchmark 1 [?](#)
- List Translator Benchmark Unknown [?](#)
- Benchmark 2 [?](#)
- Benchmark 3 [?](#)
- Benchmark 4 [?](#)
- No GS data available [?](#)

[Learn about the GreenScreen® List Translator](#)

Total VOC Content®

Material (g/l): 0.0 Regulatory (g/l): 50.0

Does the product contain exempt VOCs: No

Are ultra-low VOC tints available: N/A

Evaluation programs

Declare

Declare labels are issued to products disclosing ingredient inventory, sourcing and end of life options. Declare labels are based on the Manufacturers Guide to Declare, administered by the International Living Future Institute.

How it works

Material ingredients are inventoried and screened against the [Living Building Challenge](#) (LBC) Red List which represents the 'worst in class' materials, chemicals, and elements known to pose serious risks to human health and the greater ecosystem.

The Health Product Declaration®

The HPD Open Standard provides a consistent, and transparent format to accurately disclose the material contents and associated hazard classifications for a building product.

How it works

Material ingredients are screened and categorized according to the hazards that international governmental bodies and toxicology experts have associated with them, based on two listings:

- Authoritative lists maintained or recognized by government bodies
- Screening lists, which include chemicals that government bodies determined need further scrutiny, as well as chemical lists not recognized by any government body.

References

Declare

CAFCO BLAZE-SHIELD

Manufacturer's Guide to Declare

A comprehensive guide providing information about the program, the assessment methodology, how to submit material data to obtain a Declare label and how they are used to meet the Health & Happiness and Materials Petals of the Living Building Challenge.

Health Product Declaration®

CAFCO BLAZE-SHIELD II
CAFCO BLAZE-SHIELD HP
CAFCO BLAZE-SHIELD II HS

Health Product Declaration Open Standard v2.3

The standard provides guidance to accurately disclose the material contents of a building product using a standard, consistent, and transparent format.

What's in this product and why

Declare level

The Declare™ program holds manufacturers accountable for their ingredients used in their products and allows the specifiers, architects and others the ability to better understand the products' environmental and sustainable qualities through transparency. Isolakek International takes pride in the fact that all of our Applied Fireproofing products are labeled as Declare Red List Free.

What's in the product and why

Our products' primary components is Portland cement binder, which is obtained and processed from common natural materials, such as limestone and clay. The trade off with the cement -based products compared to the naturally occurring gypsum counterparts is their functional ability to better withstand the exterior elements or other abuses during the construction and life cycle of the structures in which they are installed. The primary component binder type has widespread availability which are sourced locally near our production facility.

What's been done in the design and manufacture in consideration of the potential human health and environmental impacts in the use stage

Isolakek International's BLAZE-SHIELD products contain more recycled content by weight than any competing Applied Fireproofing product. BLAZE-SHIELD products contain 56 to 67% slag, a by-product of steel production, which would otherwise be land filled. These products are packaged in recyclable plastic film bags and shipped on wooden pallets that can be reused or recycled.

BLAZE-SHIELD products are designed to provide the required fire resistance ratings on structural steel members and designed to last the lifetime of the building when applied in accordance with specified design criteria, Isolakek's written Application Instructions, properly maintained after application and not damaged or altered in any way after installation.

Where it goes at the end of its life

Isolakek International's Applied Fireproofing products are designed to provide the required fire resistance ratings on the structural steel members to last the lifetime of the building when applied in accordance with the specified design criteria, our written Application Instructions and are not damaged or altered in any way after their installation.

Although Isolakek's Applied Fireproofing products are designed to last the lifetime of the building, the end life of the product is generally the result of a rehabilitation, which may require removal and replacement of the Applied Fireproofing materials. The removal depends upon the degree of the rehabilitation. Otherwise, the end life of the material is based on the end life of the structure in its entirety. The material is then processed along with the remainder of the structure, primarily as landfill material.

How we're making it healthier

- Isolakek International is committed to legal compliance and ethical business practices in all of our operations.
- Isolakek's vendors must act in accordance with the applicable statutory and international standards regarding environmental protection.
- Isolakek's vendors must minimize environmental pollution and make continuous improvements in environmental protection.
- Isolakek's vendors must set up or use a reasonable environmental management system.
- In Isolakek's purchase arrangements, vendors must observe all applicable laws of their country and international standards, including but not limited to laws and standards relating to the environment, as well as health and safety.

[See how we make it greener](#)

Rating systems

LEED BD+C: New Construction | v4 - LEED v4

Building product disclosure and optimization

Material Ingredients

Credit value options 1 product each

1. Reporting 2. Optimization 3. Supply Chain Optimization

LEED BD+C: New Construction | v4.1 - LEED v4.1

Materials and resources

Material Ingredients

Credit value options 1 product each

1. Reporting 2. Optimization 3. Supply Chain Optimization

Living Building Challenge

Materials petals imperatives

10. Red List Free 12. Responsible Industry 13. Living Economy Sourcing

WELL Building Standard®

Air and Mind Features

X07 Materials Transparency

X08 Materials Optimization

Collaborative for High Performance Schools National

Criteria EQ C7.1 Material Health Disclosures

Performance Approach 2 points

Prescriptive Approach 2 points

SM Transparency Report (EPD)™ + Material Health Overview™

VERIFICATION LCA

3rd-party reviewed

Transparency Report (EPD)

3rd-party verified

Validity: 08/12/25 – 08/11/30

ISL – 08122025 – 004

MATERIAL HEALTH Material evaluation

Self-declared

This environmental product declaration (EPD) was externally verified by Jack Geibig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by [Reviewer Name] (Ecoform).

Ecoform, LLC
11903 Black Road
Knoxville, TN 37932
(865) 850-1883
www.ecoform.com



SUMMARY

Reference PCR
Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries
Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability
North America

Declared unit: 1,000 kg

LCA methodology: GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCA software; LCI database
SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCA conducted by: Sustainable Minds

Public LCA:
LCA of Isolakek Passive Fire Protection Products

EPD holder:
Isolakek International

Isolakek International
14231 Seaway Rd., Suite 1003
Gulfport, MS 3950
www.isolakek.com
800 631 9600

Contact us

How we make it greener

BLAZE-SHIELD® II, II HS & HP

Expand all

RAW MATERIAL ACQUISITION



Reuse of recycled spent materials

Isolatek uses recycled cellulose in the production of the CAFCO® 300 Series products. CAFCO 300 contains up to 6% recycled cellulose.

Isolatek collaborates with vendors to provide neutral products that minimize environmental impact, conserves energy, reduces and diverts waste, and are sustainable.

These vendors, where possible, are strategically located in close proximity to our manufacturing facilities which minimized transportation costs.



MANUFACTURING



Regional Manufacturing

Isolatek makes a point to minimize energy in our plants, buildings and processes in order to conserve supplies, and minimize consumption of natural resources, especially non-renewable resources.



TRANSPORTATION



Optimized and recycled packaging

CAFCO 300 Series products are packaged in recyclable kraft paper bags and shipped on wood pallets that can be reused or recycled.



USE



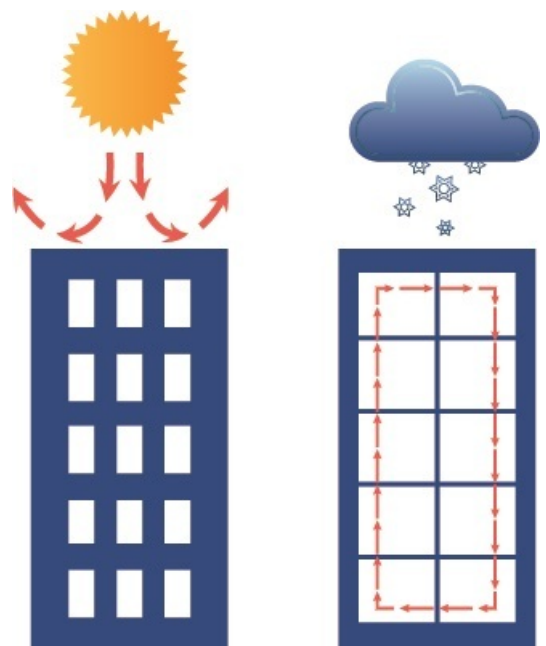
Energy use optimization

Isolatek's materials also provide both NRC (Noise Reduction Coefficient) values and Thermal Resistance (R) values which allow for the reduction of the amount of energy needed for climate control, and reduce the need for additional materials required for soundproofing within the building envelope.

Extended set products are available that eliminates daily wash out, reducing clean water consumption and construction waste.

Reduced water use

Isolatek's materials are designed to use the least amount of water during the installation process, which results in less consumption of natural resources.



END OF LIFE



Durability

Although Isolatek's Applied Fireproofing products are designed to last the lifetime of the building, the end life of the product is generally the result of a rehabilitation, which may require removal and replacement of the Applied Fireproofing materials. The removal depends upon the degree of the rehabilitation. Otherwise, the end life of the material is based on the end life of the structure in its entirety. The material is then processed along with the remainder of the structure, primarily as landfill material.



SM Transparency Report (EPD)™ + Material Health Overview™

VERIFICATION

LCA

3rd-party reviewed



Transparency Report (EPD)

3rd-party verified



Validity: 08/12/25 – 08/11/30
ISL – 08122025 – 004

MATERIAL HEALTH

Material evaluation

Self-declared



This environmental product declaration (EPD) was externally verified by Jack Gelbig (Ecoform) according to ISO 21930:2017; ISO 14025:2006; Smart EPD Part A; and Smart EPD Part B for spray-applied fire-resistive materials (SFRM).

In accordance with ISO 14044 and the reference PCR, this life cycle assessment was conducted by Sustainable Minds and reviewed by [Reviewer Name] (Ecoform).

Ecoform, LLC
11903 Black Road
Knoxville, TN 37932
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SUMMARY

Reference PCR

Smart EPD® Part B PCR for Spray-Applied Fire-Resistive Materials, 1000-003, v4.0, 01/25 – 01/30

System boundaries

Cradle to gate (A1 – A3) with installation (A4, A5)

Market of applicability

North America

Declared unit:

1,000 kg

LCIA methodology:

GWP 100 IPCC 2021 (AR6), TRACI 2.2

LCA software; LCI database

SimaPro Craft 10.2; ecoinvent 3.11, US-EI 2.2

LCA conducted by:

Sustainable Minds

Public LCA:

LCA of Isolatek Passive Fire Protection Products

EPD holder:

Isolatek International

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Contact us