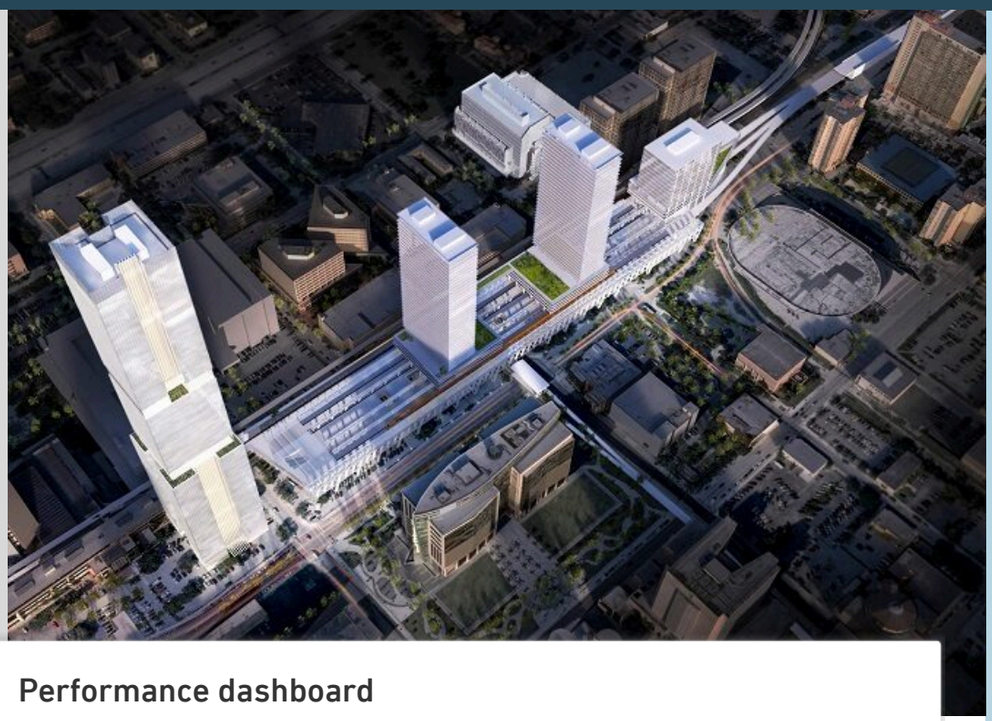
ISOLATEK
Fireproofing innovators since 1875

FENDOLITE® M-II
FENDOLITE® M-II/P

The FENDOLITE® series are the industry's leading high-density wet mix Spray-Applied Fire Resistive Materials (SFRM) designed to provide fire protection for structural steel and concrete where physical abuse or high traffic may be anticipated.

With the Portland cement formulation, thermal performance and proven superior durability and ease of application, FENDOLITE products are the preferred choice worldwide for use in the most challenging commercial and industrial applications.



Performance dashboard

Features & functionality

FENDOLITE® M-II: Most widely specified high density SFRM in the commercial and industrial industry for over thirty years.

FENDOLITE® M-II/P: Ultra high density SFRM designed for protection of structural steel in petrochemical facilities, refineries, and nuclear / power plants.

Visit Isolatek for more product information:
FENDOLITE M-II®, FENDOLITE M-II/P®

Environment & materials

Improved by:

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

Certifications, rating systems & disclosures:

Declare, Red List Free (FENDOLITE® M-II)

Health Product Declaration (FENDOLITE® M-II)

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

UL Classification Mark

Further explanatory materials may be obtained from:
Sustainable Minds

MasterFormat® 07 81 00
CAFCO SFRM Guide Spec
For spec help, contact us or call 800-631-9600

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 – 003

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

ecoform
CLEAN PRODUCT INNOVATIONS

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

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

Contact us

LCA results & interpretation

FENDOLITE® M-II & M-II/P

FENDOLITE® M-II | FENDOLITE® M-II/P | EPD additional content | Material health

Scope and summary

Cradle to gate | **Cradle to gate with options** | Cradle to grave

Application

FENDOLITE® Series products for commercial use are vermiculite and Portland cement based, wet mix, high density Spray-Applied Fire Resistive Materials (SFRMs) designed to provide fire protection to structural columns and beams in exterior environments and interior situations where the highest levels of abrasion resistance and hardness are necessary.

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: San Bernardino, CA; Stanhope, NJ; and Houston, TX

Distribution and installation scenarios

The product belongs to the FENDOLITE M-II SFRM subcategory, as the product density is greater than 35 pcf (561 kg/m^3). 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. 0.875 m^3 of water and 11 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%
Portland Cement Type 1&10	55-65%
Vermiculite	20-30%
Calcium carbonate	5-10%
Mica	5-15%

Total impacts by life cycle stage (mPts/decl unit)

LIFE CYCLE STAGE	MPTS/DECL. UNIT
Raw material supply	2.19E+01
Transport to factory	5.26E+00
Manufacturing	2.27E+00
Transport to building site	2.84E+00
Installation	3.73E-01
Total impacts = 3.27E+01 mPts	

What's causing the greatest impacts

All life cycle stages

The environmental impacts are primarily driven by the raw material supply phase. The raw material extraction and upstream processing stage dominates across all impact categories except for the non-carcinogens category. Following this, the raw material transportation, manufacturing, and transport to the building site phases contribute comparable levels of impact. The installation stage results in the lowest overall impacts.

Raw material supply

The raw material supply 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 Portland cement and vermiculite. Portland cement accounts for about 70% and vermiculite accounts for about 15% of CO$_2$-equivalent emissions within this phase. Raw material supply is also the dominant contributor accounting for 50–80% of the total impacts in most categories, with the exception of non-carcinogens.

Transport to factory

The transport to factory phase makes a significant contribution to the non-carcinogenics category, particularly for products manufactured at the San Bernardino, CA and Houston, TX plants. In contrast, for products manufactured at the Stanhope, NJ facility, transportation to the building site has a higher impact in this category compared to transport to the factory. The primary driver of non-carcinogenic effects during this phase is the inbound transport of raw materials, which leads to emissions of nitrogen oxides (NO_x) and particulate matter, both known to cause potential non-carcinogenic health effects.

Manufacturing and transport to building site

The manufacturing and transport to building site phases contribute similarly to results. For global warming potential, their impacts range between 4% and 6%.

Installation

The installation phase has a minimal overall impact. Its contribution to the global warming potential is between 3% and 4%. In the freshwater eutrophication category, approximately 5% 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 FENDOLITE® M-II is 8.48E+02 kg CO_2-eq for San Bernardino, 7.40E+02 kg CO_2-eq for Stanhope, and 8.13E+02 kg CO_2-eq for Houston.

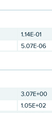
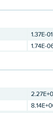
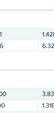
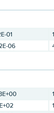
How we're making it greener

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

A variation of 10 to 20% | A variation greater than 20%

Impacts per declared unit	2.19E+01 mPts	5.26E+00 mPts	5.27E+00 mPts	2.84E+00 mPts	3.73E-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 products in the SM Transparency System.	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 - FENDOLITE® M-II produced in San Bernardino, CA

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	6.69E+02	1.32E+02	3.16E+01	4.16E+01	2.76E+01
GWP, IPCC$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.15E+01	0.00E+00	2.15E+01
GWP, IPCC$_{fossil}$	kg CO_2 eq	6.69E+02	1.32E+02	5.31E+01	4.16E+01	6.08E+00
GWP, IPCC$_{luluc}$	kg CO_2 eq	1.21E-01	7.03E-03	3.96E-02	2.21E-03	3.54E-03
GWP, TRACI$_{total}$	kg CO_2 eq	6.66E+02	1.31E+02	3.06E+01	4.10E+01	3.15E+01
GWP, TRACI$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.15E+01	0.00E+00	2.15E+01
GWP, TRACI$_{fossil}$	kg CO_2 eq	6.66E+02	1.31E+02	5.21E+01	4.10E+01	1.01E+01
Ozone depletion	kg CFC-11 eq	2.55E-06	1.78E-06	1.01E-06	5.59E-07	2.17E-08
Acidification	kg SO_2 eq	1.19E-06	5.09E-08	6.42E-08	1.60E-08	2.39E-08
Marine eutrophication	kg N eq	4.49E-01	1.02E-01	1.83E-02	3.22E-02	1.93E-03
Freshwater eutrophication	kg P eq	3.84E-03	4.19E-04	8.25E-04	1.32E-04	2.61E-04
Human health damage						
Impact category	Unit					
Smog	kg O_3 eq	2.96E+00	4.51E-01	1.30E-01	1.42E-01	1.62E-02
Respiratory effects	kg $PM_{2.5}$ eq	3.13E-05	2.01E-05	1.84E-06	6.32E-06	4.06E-07
Additional environmental information						
Impact category	Unit					
Carcinogenics	CTU_h	5.18E+01	1.22E+01	2.04E+00	3.83E+00	1.85E-01
Non-carcinogenics	CTU_h	7.34E+01	4.17E+02	7.96E+00	1.31E+02	1.19E+00
Ecotoxicity	CTU_e	3.30E-01	5.36E-02	1.50E-02	1.68E-02	1.40E-02

TRACI v2.2 results per declared unit - FENDOLITE® M-II produced in Stanhope, NJ

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	6.53E+02	3.33E+01	3.74E+01	4.16E+01	2.65E+01
GWP, IPCC$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.04E+01	0.00E+00	2.04E+01
GWP, IPCC$_{fossil}$	kg CO_2 eq	6.53E+02	3.33E+01	5.78E+01	4.16E+01	6.08E+00
GWP, IPCC$_{luluc}$	kg CO_2 eq	1.22E-01	1.77E-03	3.77E-02	2.21E-03	3.54E-03
GWP, TRACI$_{total}$	kg CO_2 eq	6.50E+02	3.29E+01	3.64E+01	4.10E+01	3.02E+01
GWP, TRACI$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.04E+01	0.00E+00	2.04E+01
GWP, TRACI$_{fossil}$	kg CO_2 eq	6.50E+02	3.29E+01	5.68E+01	4.10E+01	9.85E+00
Ozone depletion	kg CFC-11 eq	2.56E-06	4.48E-07	1.86E-06	5.59E-07	2.16E-08
Acidification	kg SO_2 eq	1.15E-06	1.28E-08	6.80E-08	1.60E-08	2.37E-08
Marine eutrophication	kg N eq	4.47E-01	2.58E-02	2.01E-02	3.22E-02	1.90E-03
Freshwater eutrophication	kg P eq	3.81E-03	1.05E-04	8.54E-04	1.32E-04	2.58E-04
Human health damage						
Impact category	Unit					
Smog	kg O_3 eq	2.98E+00	1.14E-01	1.37E-01	1.42E-01	1.61E-02
Respiratory effects	kg $PM_{2.5}$ eq	3.07E-05	5.07E-06	1.74E-06	6.32E-06	4.01E-07
Additional environmental information						
Impact category	Unit					
Carcinogenics	CTU_h	5.16E+01	3.07E+00	2.27E+00	3.83E+00	1.84E-01
Non-carcinogenics	CTU_h	7.26E+01	1.05E+02	8.14E+00	1.31E+02	1.17E+00
Ecotoxicity	CTU_e	3.30E-01	1.35E-02	1.49E-02	1.68E-02	1.40E-02

TRACI v2.2 results per declared unit - FENDOLITE® M-II produced in Houston, TX

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	6.85E+02	6.53E+01	4.50E+01	4.16E+01	2.97E+01
GWP, IPCC$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.36E+01	0.00E+00	2.36E+01
GWP, IPCC$_{fossil}$	kg CO_2 eq	6.85E+02	6.53E+01	6.86E+01	4.16E+01	6.09E+00
GWP, IPCC$_{luluc}$	kg CO_2 eq	1.17E-01	3.47E-03	4.38E-02	2.21E-03	3.55E-03
GWP, TRACI$_{total}$	kg CO_2 eq	6.82E+02	6.44E+01	4.39E+01	4.10E+01	3.40E+01
GWP, TRACI$_{biogenic}$	kg CO_2 eq	0.00E+00	0.00E+00	-2.36E+01	0.00E+00	2.36E+01
GWP, TRACI$_{fossil}$	kg CO_2 eq	6.82E+02	6.44E+01	6.74E+01	4.10E+01	1.05E+01
Ozone depletion	kg CFC-11 eq	2.57E-06	8.79E-07	1.16E-06	5.59E-07	2.18E-08
Acidification	kg SO_2 eq	1.24E-06	2.51E-08	7.76E-08	1.60E-08	2.43E-08
Marine eutrophication	kg N eq	4.71E-01	5.05E-02	2.29E-02	3.22E-02	1.97E-03
Freshwater eutrophication	kg P eq	3.75E-03	2.07E-04	1.05E-03	1.32E-04	2.65E-04
Human health damage						
Impact category	Unit					
Smog	kg O_3 eq	2.78E+00	2.23E-01	1.59E-01	1.42E-01	1.63E-02
Respiratory effects	kg $PM_{2.5}$ eq	3.12E-05	9.94E-06	1.99E-06	6.32E-06	4.17E-07
Additional environmental information						
Impact category	Unit					
Carcinogenics	CTU_h	4.97E+01	6.01E+00	2.57E+00	3.83E+00	1.86E-01
Non-carcinogenics	CTU_h	7.23E+01	2.06E+02	9.06E+00	1.31E+02	1.22E+00
Ecotoxicity	CTU_e	3.16E-01	2.65E-02	1.66E-02	1.68E-02	1.40E-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 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 12, 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 will 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 comparatively unless conformance to all requirements in ISO 14025:2006, Section 6.7.2 Requirements for Comparability are satisfied. In order to support comparative assertions, the 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 listed in this document are based on a declared unit and therefore do not provide sufficient information to determine the environmental impacts of a building. Building professionals are capable 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

LCA results & interpretation

FENDOLITE® M-II & M-II/P

FENDOLITE® M-II | FENDOLITE® M-II/P | EPD additional content | Material health

Scope and summary

○ Cradle to gate ● Cradle to gate with options ○ Cradle to grave

Application
FENDOLITE® Series products for commercial use are vermiculite and Portland cement based, wet mix, high density Spray-Applied Fire Resistive Materials (SFRMs) designed to provide fire protection to structural columns and beams in exterior environments and interior situations where the highest levels of abrasion resistance and hardness are necessary.

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 sad bags, stacked on pallets, and stretch wrapped before delivery to job sites.

Manufacturing data
Reporting period: January 2024 – December 2024
Locations: Stanhope, NJ and Houston, TX

Distribution and installation scenarios
The product belongs to the FENDOLITE M-II/P SFRM subcategory, as the product density is greater than 35 pcf (561 kg/m^3). 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. 0.875 m^3 of water and 11 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%
Portland Cement Type 1L10	55-65%
Vermiculite	20-30%
Calcium carbonate	5-10%
Mica	5-15%

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

LIFE CYCLE STAGE	MPTS/DECL. UNIT
Raw material supply	2.19E+01
Transport to factory	3.37E+00
Manufacturing	2.38E+00
Transport to building site	2.84E+00
Installation	3.74E-01
Total impacts = 3.09E+01 mPts	

What's causing the greatest impacts

All life cycle stages
The environmental impacts are primarily driven by the raw material supply phase. The raw material extraction and upstream processing stage dominates across all impact categories except for the non-carcinogens category. Following this, the raw material transportation, manufacturing, and transport to the building site phases contribute comparable levels of impact. The installation stage results in the lowest overall impacts.

Raw material supply
The raw material supply 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 Portland cement and vermiculite. Portland cement accounts for about 70% and vermiculite accounts for about 15% of CO_2-equivalent emissions within this phase. Raw material supply is also the dominant contributor accounting for 50–80% of the total impacts in most categories, with the exception of non-carcinogens.

Transport to factory
The transport to factory phase makes a significant contribution to the non-carcinogenics category, particularly for products manufactured at the Houston, TX plant. In contrast, for products manufactured at the Stanhope, NJ facility, transportation to the building site has a higher impact in this category compared to transport to the factory. The primary driver of non-carcinogenic effects during this phase is the inbound transport of raw materials, which leads to emissions of nitrogen oxides (NO_x) and particulate matter, both known to cause potential non-carcinogenic health effects.

Manufacturing and transport to building site
The manufacturing and transport to building site phases contribute similarly to results. For global warming potential, their impacts range between 4% and 6%.

Installation
The installation phase has a minimal overall impact. Its contribution to the global warming potential is between 2% and 4%. In the freshwater eutrophication category, approximately 5% 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) $IPCC_{fossil}$ global warming potential impacts. The embodied carbon per declared unit of FENDOLITE® M-II/P is 7.24E+02 kg CO_2-eq for Stanhope and 7.95E+02 kg CO_2-eq for Houston.

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

SM Single Score

Learn about SM Single Score results

A variation of 10 to 20% | A variation greater than 20%

Impacts per declared unit	2.19E+01 mPts	3.37E+00 mPts	2.38E+00 mPts	2.84E+00 mPts	3.74E-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 upstream 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 - FENDOLITE® M-II/P produced in Stanhope, NJ

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	6.53E+02	3.33E+01	3.74E+01	4.16E+01	2.64E+01
GWP, IPCC$_{Biogenic}$ / kg CO_2 eq	0.00E+00	0.00E+00	-2.03E+01	0.00E+00	2.03E+01
GWP, IPCC$_{Fossil}$ / kg CO_2 eq	6.53E+02	3.33E+01	5.78E+01	4.16E+01	6.08E+00
GWP, IPCC$_{Luluc}$ / kg CO_2 eq	1.22E-01	1.77E-03	3.77E-02	2.21E-03	3.54E-03
GWP, TRACI$_{total}$ / kg CO_2 eq	6.50E+02	3.29E+01	3.64E+01	4.10E+01	3.02E+01
GWP, TRACI$_{Biogenic}$ / kg CO_2 eq	0.00E+00	0.00E+00	-2.03E+01	0.00E+00	2.03E+01
GWP, TRACI$_{Fossil}$ / kg CO_2 eq	6.50E+02	3.29E+01	5.68E+01	4.10E+01	9.84E+00
Ozone depletion / kg CFC-11 eq	2.56E-06	4.48E-07	1.86E-06	5.59E-07	2.16E-08
Acidification / kg SO_2 eq	1.15E-06	1.28E-08	6.80E-08	1.60E-08	2.37E-08
Marine eutrophication / kg N eq	4.47E-01	2.58E-02	2.01E-02	3.22E-02	1.90E-03
Freshwater eutrophication / kg P eq	3.81E-03	1.05E-04	8.54E-04	1.32E-04	2.58E-04
Human health damage					
Impact category / Unit					
Smog / kg O_3 eq	2.98E+00	1.14E-01	1.37E-01	1.42E-01	1.61E-02
Respiratory effects / kg $PM_{2.5}$ eq	3.07E-05	5.07E-06	1.74E-06	6.32E-06	4.00E-07
Additional environmental information					
Impact category / Unit					
Carcinogenics / CTU_h	5.16E-01	3.07E+00	2.72E+00	3.83E+00	1.84E-01
Non-carcinogenics / CTU_h	7.26E+01	1.05E+02	8.14E+00	1.31E+02	1.17E+00
Ecotoxicity / CTU_e	3.30E+01	1.35E+02	1.49E+02	1.68E+02	1.40E+02

TRACI v2.2 results per declared unit - FENDOLITE® M-II/P produced in Houston, TX

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	6.85E+02	6.53E+01	4.50E+01	4.16E+01	2.97E+01
GWP, IPCC$_{Biogenic}$ / kg CO_2 eq	0.00E+00	0.00E+00	-2.36E+01	0.00E+00	2.36E+01
GWP, IPCC$_{Fossil}$ / kg CO_2 eq	6.85E+02	6.53E+01	6.86E+01	4.16E+01	6.09E+00
GWP, IPCC$_{Luluc}$ / kg CO_2 eq	1.17E-01	3.47E-03	4.38E-02	2.21E-03	3.55E-03
GWP, TRACI$_{total}$ / kg CO_2 eq	6.82E+02	6.44E+01	4.39E+01	4.10E+01	3.40E+01
GWP, TRACI$_{Biogenic}$ / kg CO_2 eq	0.00E+00	0.00E+00	-2.36E+01	0.00E+00	2.36E+01
GWP, TRACI$_{Fossil}$ / kg CO_2 eq	6.82E+02	6.44E+01	6.74E+01	4.10E+01	1.05E+01
Ozone depletion / kg CFC-11 eq	2.57E-06	8.79E-07	1.16E-06	5.59E-07	2.18E-08
Acidification / kg SO_2 eq	1.24E-06	2.51E-08	7.76E-08	1.60E-08	2.43E-08
Marine eutrophication / kg N eq	4.31E-01	5.05E-02	2.29E-02	3.22E-02	1.97E-03
Freshwater eutrophication / kg P eq	3.75E-03	2.07E-04	1.05E-03	1.32E-04	2.65E-04
Human health damage					
Impact category / Unit					
Smog / kg O_3 eq	2.78E+00	2.23E-01	1.59E-01	1.42E-01	1.63E-02
Respiratory effects / kg $PM_{2.5}$ eq	3.12E-05	9.94E-06	1.99E-06	6.32E-06	4.17E-07
Additional environmental information					
Impact category / Unit					
Carcinogenics / CTU_h	4.97E+01	6.01E+00	2.57E+00	3.83E+00	1.86E-01
Non-carcinogenics / CTU_h	7.23E+01	2.06E+02	9.06E+00	1.31E+02	1.22E+00
Ecotoxicity / CTU_e	3.16E+01	2.65E+02	1.66E+02	1.68E+02	1.40E+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 environmental 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
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

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 – 003

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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ecoform

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

Isolatek International
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Gulfport, MS 39510
USA
800 631 9600

Contact us

EPD additional content

FENDOLITE® M-II & M-II/P

FENDOLITE® M-II | FENDOLITE® M-II/P | EPD additional content | Material health

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 the allocation occurred. 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 inputs 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 toxic characteristics 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 State 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 II,10	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, rail, diesel, 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 kraft paper bags.

Kraft paper packaging consumption in manufacturing per declared unit	San Bernardino, CA	Stanhope, NJ	Houston, TX
FENDOLITE® M-II - Kraft paper packaging (kg)	13.31	12.64	14.61
FENDOLITE® M-II/P - Kraft paper packaging (kg)	N/A	12.61	14.61

Packaging transport and waste treatment scenarios in manufacturing facility	San Bernardino, CA	Stanhope, NJ	Houston, TX
Vehicle for packaging transport	53' dry van trailers		
Shipping distance for packaging material (km)	832	3,515	2,189
Waste disposal	100% landfill		
Vehicle for waste collection and transport	Garbage truck		
Waste management transport distance (km)	13	43	7

Transport scenario [A4]

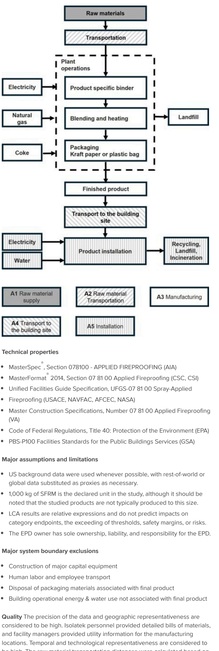
Name	Value	Unit
Fuel type	Diesel	
Vehicle type	Truck	
Transportation distance		
Transport distance	500	km
Capacity utilization	50	%
Capacity utilization volume factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaging products)	1	-
Gross density		
FENDOLITE® M-II	641.705	kg/m^3
FENDOLITE® M-II/P	800-881	kg/m^3

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)
FENDOLITE® M-II San Bernardino, CA	13.31	Recycling 8.61 kg; Landfill 3.78 kg; Incineration 0.92 kg	21.47
FENDOLITE® M-II Stanhope, NJ	12.64	Recycling 8.18 kg; Landfill 3.59 kg; Incineration 0.87 kg	20.39
FENDOLITE® M-II Houston, TX	14.61	Recycling 9.45 kg; Landfill 4.15 kg; Incineration 1.01 kg	23.57
FENDOLITE® M-II/P Stanhope, NJ	12.61	Recycling 8.16 kg; Landfill 3.58 kg; Incineration 0.87 kg	20.34
FENDOLITE® M-II/P Houston, TX	14.61	Recycling 9.45 kg; Landfill 4.15 kg; Incineration 1.01 kg	23.57

Disposal [C4] The FENDOLITE® M-II series does not contain any bio-based materials. As a result, the biogenic carbon emissions from the products in stage C4 are 0 kg CO_2.

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, Number 07 81 00 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 sold by the product 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.

Major system boundary exclusions

- Construction of major capital equipment
- Human labor and employee transport
- Disposal of packaging materials associated with final product
- Building operational energy & water use not associated with final product

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.

FENDOLITE® M-II - San Bernardino, CA: 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	2.36E+02	3.46E+00	5.36E+02	1.09E+00	1.17E+01	7.88E+02
RPR_M	MJ, NCV	0.00E+00	0.00E+00	7.69E+02	0.00E+00	0.00E+00	7.69E+02
RPR_{TM}	MJ, NCV	2.36E+02	3.46E+00	1.30E+03	1.09E+00	1.17E+01	1.56E+03
$NRPR_E$	MJ, NCV	4.12E+03	1.83E+03	9.26E+02	5.74E+02	1.11E+02	7.56E+03
$NRPR_M$	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_{TM}$	MJ, NCV	4.12E+03	1.83E+03	9.26E+02	5.74E+02	1.11E+02	7.56E+03
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	3.02E+01	2.12E+00	4.49E+00	6.67E-01	1.35E+00	3.89E+01
ADP_{mm}	MJ, NCV	3.78E+03	1.72E+03	7.58E+02	5.39E+02	7.43E+01	6.87E+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	1.33E+01	3.33E+01
HLRW	kg	4.01E-04	2.36E-05	2.83E-04	7.41E-06	9.86E-05	8.13E-04
ILLRW	kg	8.85E-04	4.96E-05	6.32E-04	1.56E-05	3.50E-04	1.93E-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	-2.15E+01	0.00E+00	0.00E+00	-2.15E+01
BCEK	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E+01	2.15E+01
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

FENDOLITE® M-II - Stanhope, NJ: 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	2.37E+02	8.72E-01	4.25E+02	1.09E+00	1.17E+01	6.75E+02
RPR_M	MJ, NCV	0.00E+00	0.00E+00	7.30E+02	0.00E+00	0.00E+00	7.30E+02
RPR_{TM}	MJ, NCV	2.37E+02	8.72E-01	1.15E+03	1.09E+00	1.17E+01	1.41E+03
$NRPR_E$	MJ, NCV	4.12E+03	4.60E+02	1.17E+03	5.74E+02	1.11E+02	6.43E+03
$NRPR_M$	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_{TM}$	MJ, NCV	4.12E+03	4.60E+02	1.17E+03	5.74E+02	1.11E+02	6.43E+03
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	3.15E+01	6.13E-01	4.98E+00	7.65E-01	1.37E+00	3.92E+01
ADP_{mm}	MJ, NCV	3.78E+03	4.32E+02	8.29E+02	5.39E+02	7.43E+01	5.65E+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	1.26E+01	3.26E+01
HLRW	kg	3.98E-04	5.94E-06	7.65E-04	7.41E-06	9.85E-05	1.28E-03
ILLRW	kg	8.83E-04	1.25E-05	1.71E-03	1.56E-05	3.50E-04	2.97E-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	-2.04E+01	0.00E+00	0.00E+00	-2.04E+01
BCEK	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E+01	2.04E+01
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

FENDOLITE® M-II - Houston, TX: 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	2.05E+02	1.68E+00	4.50E+02	1.07E+00	1.14E+01	6.69E+02
RPR_M	MJ, NCV	0.00E+00	0.00E+00	8.44E+02	0.00E+00	0.00E+00	8.44E+02
RPR_{TM}	MJ, NCV	2.05E+02	1.68E+00	1.29E+03	1.07E+00	1.14E+01	1.51E+03
$NRPR_E$	MJ, NCV	3.85E+03	8.49E+02	1.05E+03	5.40E+02	1.05E+02	6.40E+03
$NRPR_M$	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_{TM}$	MJ, NCV	3.85E+03	8.49E+02	1.05E+03	5.40E+02	1.05E+02	6.40E+03
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	2.95E+01	1.06E+00	5.43E+00	6.74E-01	1.36E+00	3.80E+01

ADP_{fossil}	MJ, NCV	3.77E+03	8.47E+02	9.83E+02	5.39E+02	7.44E+01	6.21E+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	1.46E+01	3.46E+01
HLRW	kg	4.07E-04	1.16E-05	2.30E-04	7.41E-06	9.86E-05	7.55E-04
ILLRW	kg	8.91E-04	2.45E-05	5.15E-04	1.56E-05	3.50E-04	1.80E-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	-2.36E+01	0.00E+00	0.00E+00	-2.36E+01
BCEK	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E+01	2.36E+01
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

FENDOLITE® M-II/P - Stanhope, NJ: 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	2.37E+02	8.72E-01	4.25E+02	1.09E+00	1.17E+01	6.75E+02
RPR_M	MJ, NCV	0.00E+00	0.00E+00	7.28E+02	0.00E+00	0.00E+00	7.28E+02
RPR_{total}	MJ, NCV	2.37E+02	8.72E-01	1.15E+03	1.09E+00	1.17E+01	1.40E+03
$NRPR_E$	MJ, NCV	4.12E+03	4.60E+02	1.17E+03	5.74E+02	1.11E+02	6.43E+03
$NRPR_M$	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_{total}$	MJ, NCV	4.12E+03	4.60E+02	1.17E+03	5.74E+02	1.11E+02	6.43E+03
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	3.15E+01	6.13E-01	4.98E+00	7.65E-01	1.37E+00	3.92E+01
ADP_{fossil}	MJ, NCV	3.78E+03	4.32E+02	8.29E+02	5.39E+02	7.42E+01	5.65E+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	1.26E+01	3.26E+01
HLRW	kg	3.98E-04	5.94E-06	7.65E-04	7.41E-06	9.85E-05	1.28E-03
ILLRW	kg	8.83E-04	1.25E-05	1.71E-03	1.56E-05	3.50E-04	2.97E-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	-2.03E+01	0.00E+00	0.00E+00	-2.03E+01
BCEK	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E+01	2.03E+01
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

FENDOLITE® M-II/P - Houston, TX: 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	2.23E+02	1.71E+00	5.21E+02	1.09E+00	1.17E+01	7.59E+02
RPR_M	MJ, NCV	0.00E+00	0.00E+00	8.44E+02	0.00E+00	0.00E+00	8.44E+02
RPR_{total}	MJ, NCV	2.23E+02	1.71E+00	1.37E+03	1.09E+00	1.17E+01	1.60E+03
$NRPR_E$	MJ, NCV	4.11E+03	9.02E+02	1.15E+03	5.74E+02	1.11E+02	6.86E+03
$NRPR_M$	MJ, NCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_{total}$	MJ, NCV	4.11E+03	9.02E+02	1.15E+03	5.74E+02	1.11E+02	6.86E+03
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	3.02E+01	2.12E+00	4.49E+00	6.67E-01	1.35E+00	3.89E+01
ADP_{fossil}	MJ, NCV	3.77E+03	8.47E+02	9.83E+02	5.39E+02	7.44E+01	6.21E+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	1.46E+01	3.46E+01
HLRW	kg	4.07E-04	1.16E-05	2.30E-04	7.41E-06	9.86E-05	7.55E-04
ILLRW	kg	8.91E-04	2.45E-05	5.15E-04	1.56E-05	3.50E-04	1.80E-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	-2.36E+01	0.00E+00	0.00E+00	-2.36E+01
BCEK	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E+01	2.36E+01
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 – 003

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

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

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

Contact us

LCA & material health results & interpretation

FENDOLITE® M-II & M-II/P

FENDOLITE® M-II | FENDOLITE® M-II/P | EPD additional content | Material health

Assessment scope and results

Declare™

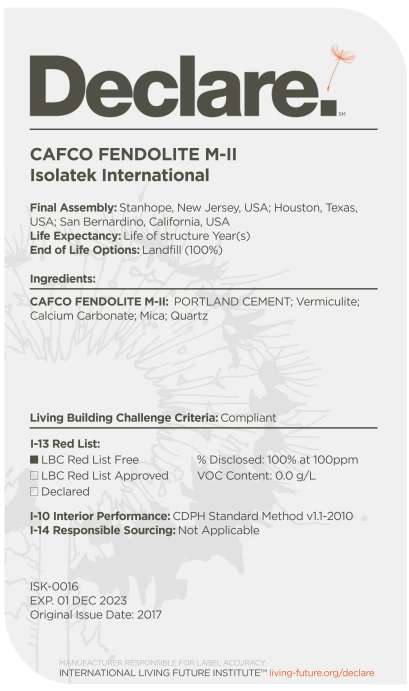
Inventory threshold: 100 ppm

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 FENDOLITE M-II & M-II/P


Declare.

CAFCO FENDOLITE M-II
Isolatek International

Final Assembly: Stanhope, New Jersey, USA; Houston, Texas, USA; San Bernardino, California, USA
Life Expectancy: Life of structure Year(s)
End of Life Options: Landfill (100%)

Ingredients:
CAFCO FENDOLITE M-II: PORTLAND CEMENT; Vermiculite; Calcium Carbonate; Mica; Quartz

Living Building Challenge Criteria: Compliant
I-13 Red List:
■ LBC Red List Free — % Disclosed: 100% at 100ppm
□ LBC Red List Approved — VOC Content: 0.0 g/L
□ Declared
I-10 Interior Performance: CDPH Standard Method v1.1-2010
I-14 Responsible Sourcing: Not Applicable

ISK-0016
EXP. 01 DEC 2023
Original Issue Date: 2017

MANUFACTURER RESPONSIBLE FOR LABEL ACCURACY
INTERNATIONAL LIVING FUTURE INSTITUTE™ living-future.org/declare

Health Product Declaration®

CAFCO FENDOLITE M-II & TG

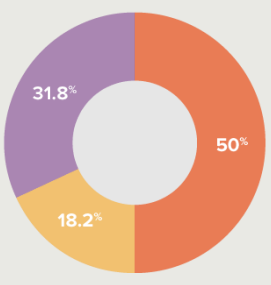
Inventory threshold: 1,000ppm

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.

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. Isolatek 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
The ingredients used to manufacture Isolatek International's CAFCO FENDOLITE M-II products, provide the most effective fire resistance properties of any competing Applied Fireproofing product.

The in-place products have superior thermal efficiencies, resulting in lower thicknesses to meet specified design criteria providing efficiencies in material and labor.

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 is sourced locally near our various production facilities.

What's been done in the design and manufacture in consideration of the potential human health and environmental impacts in the use stage
CAFCO FENDOLITE Series products are packaged in recyclable kraft paper bags and shipped on wood pallets that can be reused or recycled.

CAFCO FENDOLITE Series products are designed to provide required fire resistance ratings on structural steel members and designed to last the lifetime of a building when applied in accordance with the specified design criteria, Isolatek'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
Isolatek 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 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.

How we're making it healthier
- 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

References

Declare
CAFCO FENDOLITE M-II

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 FENDOLITE M-II & TG

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.

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 – 003

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

ecoform
CLEAN PRODUCT INNOVATIONS

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

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

Contact us

How we make it greener

FENDOLITE® M-II & M-II/P

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

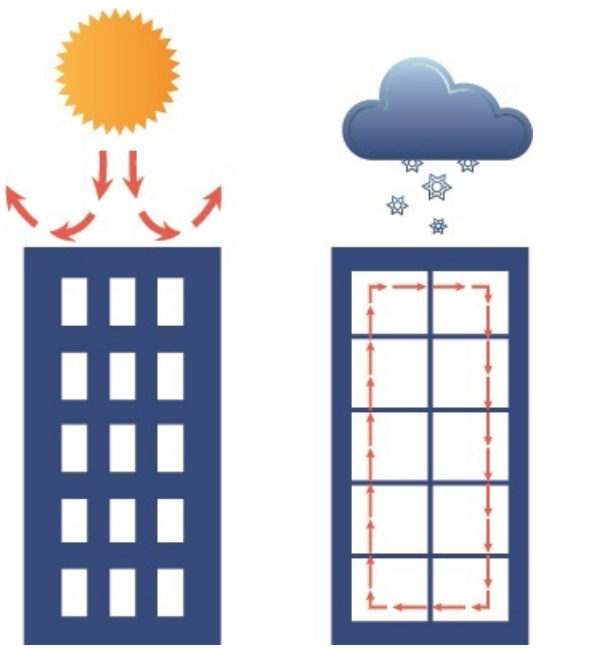
Energy use optimization

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.

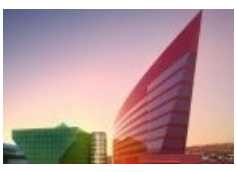
Extended set products are available that eliminates daily wash out, reducing clean water consumption and construction waste.

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

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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 – 003

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).

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