

**Isolatek International is committed to sound environmental practice and operating in a sustainable manner.** We are also committed to reducing our environmental impact while continually improving our environmental performance as an integral part of our business and operations. We encourage customers, suppliers, and other stakeholders to join us with this continuing and evolving environmental and business responsibility. [View Isolatek International's Corporate Environmental Policy.](#)

## What is LEED?

Leadership in Energy and Environmental Design (LEED) is a rating system that was developed by the United States Green Building Council (USGBC) to evaluate the environmental performance of a building and encourage a market change towards sustainable design.

There are four levels of Certification levels that can be reached for LEED v4 which are awarded based on achieving a minimum number of points.

## What points do Isolatek materials qualify for?

At this current time, Isolatek International can assist in achieving points in the following LEED v4 categories:

- Energy & Atmosphere
  - Prerequisite 2 – Minimum Energy Performance
  - Credit 2 – Optimize Energy Performance
- Materials and Resources
  - Prerequisite 2 – Construction and Demolition Waste Management Planning
  - Credit 1 – Building Life Cycle Impact Reduction
  - Credit 3 – Building Product Disclosure and Optimization – Sourcing of Raw Materials
  - Credit 4 – Building Product Disclosure and Optimization – Material Ingredients
- Indoor Environmental Quality
  - Credit 2 – Low Emitting Materials

## What is Isolatek doing to further enhance point qualifications?

As we feel that it is of utmost importance to continually improve our products' impact and footprint, we are working diligently to provide materials and testing to qualify for points in additional categories.



# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## ENERGY AND ATMOSPHERE

EA Prerequisite 2 – [Minimum Energy Performance](#)

REQUIRED

### **Intent:**

To reduce the environmental and economic harms of excessive energy use by achieving a minimum level of energy efficiency for the building and its systems.

### **Requirements:**

Use the options and strategies as specified in the LEED BD+C: New Construction, Minimum Energy and Performance Guide.

### **How Isolatek Contributes:**

Isolatek International's wet-spray, dry-spray, and rigid board fireproofing materials provide, in addition to their fire resistance, both NRC (Noise Reduction Coefficient) values and Thermal Resistance (R) values. These values 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.

### **Products that Contribute:**

- CAFCO® 300 Series Products
- CAFCO® 400 Series Products
- CAFCO® BLAZE-SHIELD® II & HP
- CAFCO® FENDOLITE® Products
- CAFCO® HEAT-SHIELD®
- CAFCO-BOARD®
- CAFCO® SOUND-SHIELD® 40

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## ENERGY AND ATMOSPHERE

### EA Credit 1 – [Optimize Energy Performance](#)

UP TO 18 POINTS

#### **Intent:**

To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic harms associated with excessive energy use.

#### **Requirements:**

Establish an energy performance target no later than the schematic design phase using the options and strategies as specified in the LEED BD+C: New Construction, Optimize Energy Performance Guide.

#### **How Isolatek Contributes:**

Isolatek International's wet-spray, dry-spray, and rigid board fireproofing materials provide, in addition to their fire resistance, both NRC (Noise Reduction Coefficient) values and Thermal Resistance (R) values. These values 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.

#### **Products that Contribute:**

- CAFCO® 300 Series Products
- CAFCO® 400 Series Products
- CAFCO® BLAZE-SHIELD® II & HP
- CAFCO® FENDOLITE® Products
- CAFCO® HEAT-SHIELD®
- CAFCO-BOARD®
- CAFCO® SOUND-SHIELD® 40

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## MATERIALS AND RESOURCES

### MR Prerequisite 2 – Construction and Demolition Waste Management

**REQUIRED**

#### **Intent:**

To reduce construction and demolition waste disposed in landfills and incineration facilities by recovering, reusing, and recycling materials.

#### **Requirements:**

Divert at least 50% of the total construction and demolition material for Path 1 (1 point) or 75% of materials for Path 2 (1 point); diverted materials must include at least three material streams. Or, as an option (2 points), do not generate more than 2.5 pounds of construction waste per square foot (12.2 kilograms of waste per square meter) of the building's floor area.

#### **How Isolatek Contributes:**

This credit is provided for diversion of waste materials. Consider recycling construction materials. Isolatek's products are supplied in either plastic or kraft paper bags that are able to be recycled. The pallets that our products are shipped on can also be recycled. Our pailed products are supplied in 5 gallon plastic containers, which can also be recycled. Our products are not considered hazardous (refer to SDS).

#### **Products that Contribute:**

- CAFCO® 300 Series Products
- CAFCO® 400 Series Products
- CAFCO® BLAZE-SHIELD® II & HP
- CAFCO® FENDOLITE® Products
- CAFCO® HEAT-SHIELD®
- CAFCO-BOARD®
- CAFCO® SOUND-SHIELD® 40
- CAFCO® SprayFilm® Intumescent Coatings

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## MATERIALS AND RESOURCES

### MR Credit 1 – Building Life-Cycle Impact Reduction

**UP TO 5 POINTS**

**Intent:**

To encourage adaptive reuse and optimize the environmental performance of products and materials.

**Requirements:**

Demonstrate reduced environmental effects during initial project decision-making by reusing existing building resources or demonstrating a reduction in materials use through life-cycle assessment using Option 3 as specified in the LEED BD+C: New Construction, Building life-cycle impact reduction Guide.

Reuse or salvage building materials from off site or on site as a percentage of the surface area, as listed in the table below. Include structural elements (e.g., floors, roof decking), enclosure materials (e.g., skin, framing), and permanently installed interior elements (e.g., walls, doors, floor coverings, ceiling systems). Exclude from the calculation window assemblies and any hazardous materials that are remediated as a part of the project.

Materials contributing toward this credit may not contribute toward MR Credit Building Product Disclosure and Optimization - Sourcing of Raw Materials.

% of completed project surface area reused	Points BD&C	Points BD&C (Core and Shell)
25%	2	2
50%	3	3
75%	4	5

**How Isolatek Contributes:**

Isolatek International's wet-spray, dry-spray, and rigid board fireproofing materials are also utilized for retrofit and rehab construction projects. These materials will provide the required fire resistance ratings to previously unprotected or abated structural element steel members (e.g. floor and roof ceiling assemblies, beams and columns) to bring the building up to current model building code. This will eliminate the need to replace the existing structural elements, which were previously not code compliant. Keep in mind that this credit only applies when at least 55% of the surface area of the building is re-used.

**Products that Contribute:**

- CAFCO® 300 Series Products
- CAFCO® 400 Series Products
- CAFCO® BLAZE-SHIELD® II & HP
- CAFCO® FENDOLITE® Products
- CAFCO® HEAT-SHIELD®
- CAFCO-BOARD®
- CAFCO® SOUND-SHIELD® 40
- CAFCO® SprayFilm® Intumescent Coatings

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## MATERIALS AND RESOURCES

MR Credit 3 – [Building Product Disclosure and Optimization – Sourcing Raw Materials](#) 1 POINT

### Intent:

To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts. To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.

### Requirements:

Option 2 (1 point) credit, indicates that products must demonstrate leadership in the sourcing of raw materials. Several paths are provided to meet this credit, which includes material reuse and recycling. Reuse includes salvaged, refurbished, or reused products. Products meeting materials reuse criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Recycled content is the sum of postconsumer recycled content plus one-half the pre-consumer recycled content. Both based on cost. Products meeting recycled content criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Products sourced (extracted, manufactured, and purchased) within 100 miles (160 km) of the project site are valued at 200% of their base contributing cost. The base contributing cost of individual products compliant with multiple responsible extraction criteria is not permitted to exceed 100% its total actual cost (before regional multipliers) and double counting of single product components compliant with multiple responsible extraction criteria is not permitted and in no case is a product permitted to contribute more than 200% of its total actual cost.

### How Isolatek Contributes:

Our various products are manufactured with recycled materials. The breakdown list below identifies the recycled content percentage by weight.

Post-consumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the products, which can no longer be used for intended purpose.

Pre-consumer material is defined as material diverted from a waste stream during the manufacturing process. Excluded is the reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

### Products that Contribute:

#### **CAFCO® BLAZE-SHIELD® II - 67% Pre-consumer:**

- Total Recycled content for this credit is 33.5%

#### **CAFCO® BLAZE-SHIELD® HP - 56% Pre-consumer:**

- Total Recycled content for this credit is 28%

#### **CAFCO® 300/300AC/300HS/300SB/300ES/304 - 10% Post-consumer:**

- Total Recycled content for this credit is 10%

#### **CAFCO® 3000/3000ES - 10% Post-consumer:**

- Total Recycled content for this credit is 10%

#### **CAFCO® 400/400AC/400ES - 10% Post-consumer:**

- Total Recycled content for this credit is 10%

#### **CAFCO-BOARD® - >70% Pre-consumer:**

- Total Recycled content for this credit is >35%

#### **CAFCO® HEAT-SHIELD® - 90% Pre-consumer:**

- Total Recycled content for this credit is 45%

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## MATERIALS AND RESOURCES

### MR Credit 4 – [Building Product Disclosure and Optimization – Material Ingredients](#)

1 POINT

#### **Intent:**

To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products for which the chemical ingredients in the product are inventoried using an accepted methodology and for selecting products verified to minimize the use and generation of harmful substances. To reward raw material manufacturers who produce products verified to have improved life-cycle impacts.

#### **Requirements:**

Option 1 (1 point) credit is provided if 20 products in the building disclose chemical ingredients in their products using acceptable methodology, including a Health Product Declaration (HPD), or other approved programs, such as a Declare product label. The products must demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm).

#### **How Isolatek Contributes:**

Isolatek currently provides a self-declared Health Product Declaration (HPD) for all of its Applied Fireproofing and Intumescent Fireproofing materials, along with [Declare labels](#).

#### **Products that Contribute:**

- CAFCO<sup>®</sup> 300 Series Products [HPD, Declare Label]
- CAFCO<sup>®</sup> 400 Series Products [HPD, Declare Label]
- CAFCO<sup>®</sup> BLAZE-SHIELD<sup>®</sup> II & HP [HPD]
- CAFCO<sup>®</sup> FENDOLITE<sup>®</sup> Products [HPD, Declare Label]
- CAFCO<sup>®</sup> SprayFilm<sup>®</sup> Intumescent Coatings [HPD, Declare Label]

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## INDOOR ENVIRONMENTAL QUALITY

### EQ Credit 2 – Indoor Environmental Quality - Low Emitting Materials

UP TO 5 POINTS

#### **Intent:**

To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment.

#### **Requirements:**

This credit includes requirements for volatile organic compound (VOC) emissions in the indoor air and the VOC content of materials, as well as the testing methods by which indoor VOC emissions are determined.

To meet the general emissions requirements, the products must comply with California Department of Public Health (CDPH) Standard Method v1.1.

To meet the VOC content requirements, the wet applied paints and coatings must meet the applicable VOC content limits of the California Air Resources Board (CARB) 2007 Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113.

#### **How Isolatek Contributes:**

Isolatek has evaluated its products to EPA, Method 24, which is the acceptable method for determining VOC Content (*VOC Content listed on Page 9*). Isolatek has also evaluated its products for VOC Emissions in accordance with CDPH Standard Method v1.1.

#### **Products that Contribute:**

- CAFCO® 300 Series Products [VOC Content, VOC Emissions]
- CAFCO® 400 Series Products [VOC Content, VOC Emissions]
- CAFCO® BLAZE-SHIELD® II & HP [VOC Content]
- CAFCO® FENDOLITE® Products [VOC Content, VOC Emissions]
- CAFCO® SprayFilm® Intumescent Coatings [VOC Content, VOC Emissions]



## Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

### MANUFACTURING LOCATIONS

**CAFCO® 300, 304, SB, AC, HS, ES; CAFCO® 3000, ES; CAFCO® 400, AC, ES; CAFCO® FENDOLITE M-II, TG, M-II/P; CAFCO® SOUND-SHIELD® 40:**

- Stanhope, New Jersey
- Houston, Texas
- San Bernardino, California

**CAFCO® BLAZE-SHIELD® II, HP; CAFCO® HEAT-SHIELD®:**

- Huntington, Indiana

**CAFCO-BOARD®:**

- Wabash, Indiana

**CAFCO SprayFilm WB 3, WB 4, WB 5, Topseal; CAFCO BOND-SEAL:**

- Lawrence, Massachusetts

### VOC CONTENT (EPA, METHOD 24)

**CAFCO® SprayFilm® WB 3:**

- <13.0 g/L (<0.11 lb/gal)

**CAFCO® SprayFilm® WB 4:**

- <13.0 g/L (<0.11 lb/gal)

**CAFCO® SprayFilm® WB 5:**

- 0.0 g/L (0.0 lb/gal)

**CAFCO® SprayFilm® Topseal®:**

- <24.0 g/L (0.20 lb/gal)

**CAFCO® BOND-SEAL®:**

- 0.0 g/L (0.0 lb/gal)

**CAFCO® BLAZE-SHIELD® II, HP:**

- 0.0 g/L (0.0 lb/gal)

**CAFCO® 300, 304, SB, AC, HS:**

- 0.0 g/L (0.0 lb/gal)

**CAFCO® 400:**

- 0.0 g/L (0.0 lb/gal)

**CAFCO® 3000:**

- 8.1 g/L (<0.07 lb/gal)

**CAFCO® 400, AC:**

- 8.1 g/L (<0.07 lb/gal)

**CAFCO® FENDOLITE® M-II, TG, M-II/P:**

- 0.0 g/L (0.0 lb/gal)

# Isolatek International's Contributions to LEED v4 New Construction and Major Renovation

## RAW MATERIAL SOURCING

Please contact Isolatek Technical Services Department at 800-631-9600 or [technical@isolatek.com](mailto:technical@isolatek.com) in order to obtain extraction locations for the following ingredients that are pertinent to the following CAFCO® products.

**CAFCO® 300, 304, SB, AC, HS, ES; CAFCO® 3000, ES; CAFCO® 400AC, ES:**

- Stucco/Gypsum Plaster
- Cellulose<sup>+</sup>

**CAFCO® 400:**

- Portland Cement
- Cellulose<sup>+</sup>

**CAFCO® FENDOLITE M-II, TG, M-II/P; CAFCO® SOUND-SHIELD® 40:**

- Portland Cement

**CAFCO® BLAZE-SHIELD® II, HP; CAFCO® HEAT-SHIELD®:**

- Portland Cement
- Mineral Wool<sup>++</sup>

**CAFCO-BOARD®:**

- Mineral Wool<sup>++</sup>

**CAFCO® SprayFilm WB 3, WB 4, WB 5, Topseal; CAFCO® BOND-SEAL:**

- N/A

<sup>+</sup> Contributes to Post-Consumer Recycled Content

<sup>++</sup> Contributes to Pre-Consumer (formerly Post-Industrial) Recycled Content

## USEFUL LINKS & RESOURCES

LEED | U.S. Green Building Council (USGBC):

- <http://www.usgbc.org/leed>

LEEDuser:

- <http://www.leeduser.com/browsev4>

HPD Collaborative:

- <http://www.hpd-collaborative.org/leed-v4-credit-achievement>

Distance Calculators:

- <https://www.freemaptools.com/how-far-is-it-between.htm>
- <http://tjpeiffer.com/crowflies.html>



Isolatek International provides passive fireproofing materials under the CAFCO® trademark throughout the Americas and other markets and under the ISOLATEK® trademark throughout the world.

800.631.9600 or 973.347.1200  
[www.isolatek.com](http://www.isolatek.com) | [technical@isolatek.com](mailto:technical@isolatek.com)



8/17