



**Leadership in Energy and Environmental Design  
LEED 2009 Green Building Rating System™**





# Isolatek Contributions to LEED 2009

As the world's leading manufacturer of structural steel fire protection products, Isolatek International recognizes the value of designing buildings to meet the standards of the Leadership in Energy and Environmental Design (LEED) Program.

Attached you will find a detailed breakdown of how Isolatek products help contribute to certain LEED credits and the corresponding points. There is no such thing as a LEED certified product. The intent of the LEED program is to apply products to the outlined criteria for the various LEED credits.

The following are the areas of the LEED 2009 for New Construction and Major Renovations, where Isolatek products will contribute toward the credit(s):

Credit - Section	Page
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➤ MR – Materials and Resources	
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The contents of this informational package should be used as a guide only. Please contact our Technical Services Department at 973-347-1200 (Option 1) with any questions concerning this package.

# Isolatek International - ISOLATEK® Fire Protection Products

## Contributions to LEED 2009 New Construction & Major Renovations

### Energy and Atmosphere

#### Prerequisite 2

**Intent:** Establish the minimum level of energy efficiency for the proposed building system

**Requirements:** Utilize one of the three options outlined in the LEED 2009 New Construction and Major Renovations guide.

**Potential Technologies & Strategies:** Design the building envelope and systems to meet the baseline requirements utilizing a computer simulation model.

**How ISOLATEK Contributes:** Both Wet-Mix and Dry-Mix materials provide thermal resistance and NRC (Noise Reduction Coefficient) values. This will reduce the amount of energy needed for climate control, and reduce any added materials needed for soundproofing. This credit only applies to materials when used within the building envelope.

**Products that Contribute:**

ISOLATEK® Type 300/300AC/300SB/304, ISOLATEK® Type 400  
 ISOLATEK® Type II, ISOLATEK® Type HP  
 ISOLATEK® Type CB, ISOLATEK® SOUND-SHIELD® 40  
 ISOLATEK® Type M-II/TG, ISOLATEK® HEAT-SHIELD®

#### EA Credit 1: Optimize Energy Performance 1-19 Points

**Intent:** Achieve increasing levels of energy performance above the baseline in the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.

**Requirements:** Select one of three compliance path options described in the LEED-NC Version 2.2 page 35

**How ISOLATEK Contributes:** Both Wet-Mix and Dry-Mix materials provide thermal resistance and NRC (Noise Reduction Coefficient) values. This will reduce the amount of energy needed to for climate control, and reduce any added materials needed for soundproofing. This credit only applies to materials when applied within the building envelope.

**Products that Contribute:**

ISOLATEK Type 300/300AC/300SB/304, ISOLATEK Type 400  
 ISOLATEK Type II, ISOLATEK Type HP  
 ISOLATEK Type CB, ISOLATEK SOUND-SHIELD 40  
 ISOLATEK Type M-II/TG, ISOLATEK HEAT-SHIELD





**MR Credit 1.1: Building Reuse: Maintain of Existing Walls, Roofs & Floor**

Building Reuse	Points
55%	1
75%	2
95%	3

**Intent:** Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transportation.

**Requirements:** Maintain at 55% - 95% (based on surface area) of existing building structure (including structural floor and roof decking) and envelope (exterior skin and framing, exclude window assemblies and non-structural roofing material)

**Potential Technologies & Strategies:** Remove elements that pose contamination risk to the building occupants and upgrade components that would improve energy and water efficiency.

**How ISOLATEK Contributes:** Wet-Mix and Dry-Mix products are utilized for retrofit/rehab construction. They will provide fire resistance ratings to unprotected structural members which will bring the existing building up to code. This will eliminate the need to replace the structural elements, that were not code compliant. An example would be wood floors Remember that this credit only applies when at least 55% of the surface area of the building is reused.

**Products that Contribute:**

ISOLATEK Type 300/300AC/300SB/304, ISOALTEK Type 400  
ISOLATEK Type II, ISOLATEK Type HP  
ISOLATEK Type M-II/TG, ISOLATEK Type CB

**MR Credit 2: Construction Waste Management: Divert 50% - 75% from Disposal**

Recycled/Salvaged	Points
50%	1
75%	2

**Intent:** Divert construction, demolition and land clearing debris from disposal in landfills and incinerators. Redirect recyclable recovered resources back to the manufacturing process. Redirect reusable materials to the appropriate sites.

**Requirements:** Recycle and/or salvage at 50%-75% of non-hazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or commingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculations can be done by weight or volume, but must be consistent throughout.

**Potential Technologies & Strategies:** Establish goals for diversion from disposals in landfills and incinerators and adopt a construction waste management plan to achieve these goals. Consider recycling construction materials.

**How ISOLATEK Contributes:** Our products are supplied in either plastic or kraft paper bags that are able to be recycled. The pallets our products are shipped on can also be recycled. Our pailed products are supplied in 5 gallon plastic containers which are able to be sent to a recycling site. None of our products are hazardous materials.

**Products that Contribute:**

ISOLATEK Type 300/300AC/300SB/304, ISOLATEK Type 400  
ISOLATEK Type II, ISOLATEK Type HP  
ISOLATEK® Type WB 3/WB 4/WB 5, ISOLATEK Type EBS & X  
ISOLATEK Type M-II/TG, ISOLATEK Type CB





**MR Credit 4: Recycled Content:**

Recycled Content	Points
10%	1
20%	2

**Intent:** Increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

**Requirements:** Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes 10%-20% (based on cost) of the total value of the materials in the project.

The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of the assembly to determine the recycled content.

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 product, which can no longer be used for its intended purpose.

Pre-consumer materials 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 reclaimed within the same process that generated it.

**Potential Technologies & Strategies:** Establish a project goal for recycled content and identify material suppliers that can achieve this goal. During construction ensure that the specified recycled content materials are installed.

**How ISOLATEK Contributes:** Our various products are manufactured with recycled materials. See the breakdown listed below, which identifies the recycled content percentage.

**Products that Contribute:**

- ISOLATEK Type II - 67% Pre-consumer
  - **Total Recycled content for this credit is 33.5%**
- ISOLATEK Type HP - 56% Pre-consumer
  - **Total Recycled content for this credit is 28%**
- ISOLATEK Type 300/300AC/300SB/304 - 10% Post-consumer
  - **Total Recycled content for this credit is 10%**
- ISOLATEK Type 400 - 10% Post-consumer
  - **Total Recycled content for this credit is 10%**
- ISOLATEK Type CB - 70% Pre-consumer
  - **Total Recycled content for this credit is 35%**
- ISOLATEK HEAT-SHIELD - 90% Pre-consumer
  - **Total Recycled content for this credit is 45%**







**MR Credit 5: Regional Materials:**

Recycled Content	Points
10%	1
20%	2

**Intent:** Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

**Requirements:** Use building materials that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% (based on cost) of the total materials value. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally then only that percentage (by weight) shall contribute to the regional value.

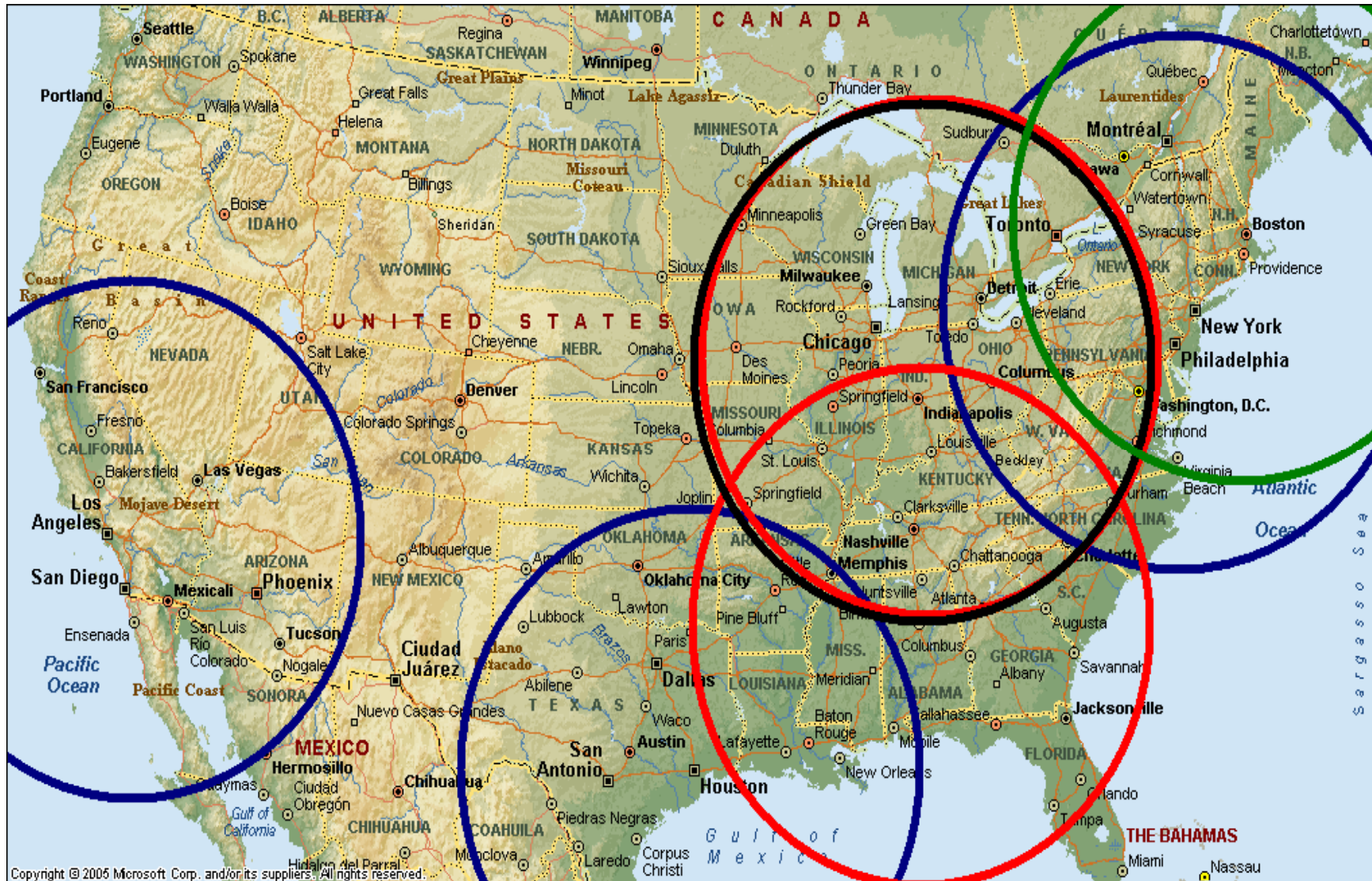
**Potential Technologies & Strategies:** Establish a project goal for locally sourced materials, and identify materials and material suppliers that can achieve this goal. During construction, ensure that the specified local are installed and quantify the total percentage of local materials installed.

**How ISOLATEK Contributes:** In the Americas, Isolatek has strategically placed manufacturing facilities located in key areas. A map has been supplied to show manufacturing facilities and the required 500 mile radius to earn this credit.

**Products that Contribute:**

ISOLATEK Type II - <b>Manufactured in Huntington, IN and Birmingham, AL</b>
ISOLATEK Type HP - <b>Manufactured in Huntington, IN</b>
ISOLATEK HEAT-SHIELD - <b>Manufactured in Huntington, IN</b>
ISOLATEK Type 300/300AC/300SB/304 - <b>Manufactured in Stanhope, NJ, Houston, TX and San Bernardino, CA</b>
ISOLATEK Type 400 - <b>Manufactured in Stanhope, NJ and Houston, TX San Bernardino, CA</b>
ISOLATEK Type M-II/TG & ISOLATEK SOUND-SHIELD 40 - <b>Manufactured in Stanhope, NJ and Houston, TX San Bernardino, CA</b>
ISOLATEK Type WB 3/WB 4/WB 5 & ISOLATEK Type EBS - <b>Manufactured in Lawrence, MA</b>
ISOLATEK Type CB - <b>Manufactured in Warren, IN</b>





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**IEQ Credit 4.1: Low-Emitting Materials: Adhesives and Sealants**  
**1 Point**

**Intent:** Reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers and occupants.

**Requirements:** All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the South Coast Air Quality Management District (SCAQMD) Rule #1168

**Potential Technologies & Strategies:** Specify low VOC materials in construction documents. Ensure that VOC limits are clearly stated in each section of the specification where adhesives and sealants are addressed.

**How ISOLATEK Contributes:** ISOLATEK Type EBS, ISOLATEK Type X and TOP-COTE are all VOC Compliant and meet the standards set forth by South Coast Air Quality Management District Rule #1168.

**Products that Contribute:**  
 ISOLATEK Type EBS  
 ISOLATEK Type X  
 ISOLATEK TOP-COAT

**EQ Credit 4.2: Low-Emitting Materials: Paints and Coatings**  
**1 Point**

**Intent:** Reduce the quantity of indoor air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of installers and occupants.

**Requirements:** Paints and coatings used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the following criteria:

**Architectural paints,** coatings and primers applied to interior walls and ceilings: Do not exceed the VOC limits established in Green Seal Standard GS-11, Paints, First Edition, May 20, 1993:

- \* Flats : 50 g/L
- \* Non-Flats: 150 g/L

**Potential Technologies & Strategies:** Specify low VOC materials in construction documents. Ensure that VOC limits are clearly stated in each section of the specification where paints and coatings are addressed.

**How ISOLATEK Contributes:** ISOLATEK Intumescent products and ISOLATEK TOPSEAL all meet the required VOC limits as outlined in this credit.

**Products that Contribute:**

Material	VOC Content*
ISOLATEK Type WB 3	0.0 g/L
ISOLATEK Type WB 4	0.0 g/L
ISOLATEK Type WB 5	0.0 g/L
ISOLATEK TOPSEAL™	0.20 lb/gal
ISOLATEK Type II**	0.0 lb/gal
ISOLATEK Type HP**	0.0 lb/gal
ISOLATEK Type 300/300AC/300SB**	0.0 lb/gal
ISOLATEK Type 400**	0.0 lb/gal
ISOLATEK Type M-II/TG**	0.0 lb/gal

\* In accordance Federal Reference Method 24.

\*\* These materials may not be considered coatings and may not apply to this credit.

Conversion: (1 lb/gal = 119.8 g/L) or (1 g/L = 0.0083 lbs/gal)

