



USGBC LEED® Product Evaluation

April 1, 2008



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RECORE® LEED Evaluation

Scope and Key Points of RECORE® LEED Evaluation

- This document is intended as an informational tool to address the increasing frequency of LEED questions from the market.
- The USGBC LEED website at <http://www.leedbuilding.org> and the LEED New Construction Version 2.2 Reference Guide have provided much of the LEED content for this document.
- The evaluation encompasses RECORE® Multi-purpose Insulation distributed exclusively by Fabricmate Systems, Inc.
- Products are not LEED certified. It is the project that is LEED certified. The cumulative effect of a project's materials, methods and outcomes earn LEED project credit points and gain LEED project certification.
- There are three primary LEED Project Rating Systems, all of which contain similar credit categories.
 1. New Construction/Major Renovation
 2. Commercial Interiors
 3. Core and Shell Development
- LEED questions from the market should be answered in the context of the three primary Rating Systems noted above, unless directed otherwise, since the "other" LEED Rating Systems are in draft or pilot stages.
- RECORE® primary areas for LEED credit contribution are:
 - MR 1.2: Materials and Resources: Building Reuse. Maintain 40% of Interior Non-structural Components.
 - MR 1.3: Materials and Resources: Building Reuse. Maintain 60% of Interior Non-structural Components.
 - MR 4.1: Materials and Resources: Recycled Content 10% of the total value of the building materials in the project.
 - MR 4.2: Materials and Resources: Recycled Content 20% of the total value of the building materials in the project.
 - EQ 4.1: Indoor Environmental Quality: Low emitting materials, Adhesives & Sealants.

Current Considerations

As RECORE® may be used as a principal component in Fabricmate products and systems, there may be opportunities for additional LEED credit contributions based upon system design and product attributes.

LEED Background and Frequently Asked Questions

What is LEED® (Leadership in Energy and Environmental Design)?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is a nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

Who created LEED?

The U.S. Green Building Council (USGBC) created LEED. USGBC is a coalition of leaders from sectors of the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work. The U.S. Green Building Council's core purpose is to transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life.

How is LEED developed?

The LEED Rating System was created to provide the building industry with consistent, credible standards for what constitutes a green building. The rating system is developed and continuously refined via a consensus-based process.

Are products LEED certified?

Products are not LEED certified. Products contribute to an overall building project's LEED certification. Although USGBC does not certify, promote or endorse products and services of individual companies, products and services do play a role and can help projects with credit achievement.

What is LEED Certification?

The first step to LEED certification is to register the **building project**. To earn certification, a building project must meet certain prerequisites and performance benchmarks ("credits") within each category. Projects are awarded Certified, Silver, Gold, or Platinum certification depending on the number of credits they achieve. A LEED project applicant provides the LEED documentation forms and determines what further verification/documentation is needed for products.

How does LEED determine if the project qualifies for a particular LEED credit?

Each LEED Credit has specific calculation instructions to determine if the project qualifies for a LEED Credit. In many cases, LEED credit is calculated by the sum of all product costs associated with a particular LEED Credit, then compared to the overall project cost. The LEED project applicant is responsible for gathering data for these credit determination calculations.

RECORE® LEED Credit Contribution for the Following Project Rating Systems:

1. **New Construction/Major Renovation**
2. **Commercial Interiors (Same credit areas as New Construction)**
3. **Core and Shell Development (Same credit areas as New Construction)**

Materials and Resources

Credit MR 1.2: Building Reuse, Maintain 40% of Interior Non-structural Components.

Credit MR 1.3: Building Reuse, Maintain 60% of Interior Non-structural Components.

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 transport.

Requirements

Maintain at least 40% by area of the existing non-shell, non-structure components (walls, flooring and ceilings).

Credit MR 4.1: Recycled Content, 10% (post consumer + ½ pre-consumer)

Credit MR 4.2: Recycled Content, 20% (post consumer + ½ pre-consumer)

Intent

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

Requirements

Use materials, including furniture and furnishings, with recycled content such that the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10%/20% of the total value of the materials in the project. The value of the recycled content portion of a material or furnishing shall be determined by dividing the weight of recycled content in the item by the total weight of all material in the item, then multiplying the resulting percentage by the total cost (\$) of the item. Mechanical and electrical components shall not be included in this calculation. Plumbing products however may be included. Recycled content materials shall be defined in accordance with the Federal Trade Commission document, *Guides for the Use of Environmental Marketing Claims*, 16 CFR 260.7 (e), available at www.ftc.gov/bcp/grnrule/guides980427.htm.

Indoor Environmental Quality

Credit EQ 4.1 - Low-Emitting Materials: Adhesives & Sealants

Intent

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

Requirements

All materials listed below that are used in the building interior, (i.e., inside of the exterior moisture barrier) must not exceed the following requirements:

Adhesives, Sealants and Sealant Primers: South Coast Air Quality Management District (SCAQMD) Rule #1168 requirements in effect on January 1, 2003 and rule amendment dated October 3, 2003.

Aerosol Adhesives: Green Seal Standard GC-36 requirements in effect on October 19, 2000.



ReCore®

Environmentally Friendly Multi-Purpose Insulation



1. PRODUCT NAME

ReCore®

2. DISTRIBUTOR

Fabricmate Systems, Inc.
 4350 Transport Street, Suite 101
 Ventura, CA 93003-5647
 Phone: (805)642-7470
 (866)622-2996
 Fax: (805)642-3154
 www.fabricmate.com

3. PRODUCT DESCRIPTION

Basic Use: ReCore® is a white, polyester fiber insulation used for acoustical control, and to provide a high-impact tackable panel or wall surface in commercial, institutional, and educational applications.

Benefits: ReCore® is a lightweight, durable, semi-rigid substrate. It is impact resistant and tackable. It is fabricated from 100% polyester with no irritating fibers and it is free of volatile organic compounds (VOCs) including formaldehyde. It resists bacterial and fungal growth, is non-toxic and non-allergenic. It will not rot, deteriorate, or change color over time. The product can be easily fabricated on the job site using standard tools.

Composition & Materials: ReCore® is manufactured from 100% polyester fibers thermo-bonded and treated with a flame retardant material. ReCore® has a 65% post consumer content (recycled plastic beverage

containers). ReCore® is itself 100% recyclable or alternatively it can be safely destroyed by incineration.

Limitations: ReCore® should be kept clean and dry at all times.

Sizes: ReCore® is available in ½" and 1" thickness in both quarter (24" x 48") and full (48" x 96") sheets. Available in all white or black faced white.

Densities: ReCore® is available in:
 ½" - 9.4 pcf
 1" - 7.5 pcf, 6.0 pcf, & 3.0 pcf

4. TECHNICAL DATA

Applicable Standards:

- BOCA, ICBO, SBCCI, CABO, ICC

Fire Resistance:

- ASTM E84, UBC 8-1, ANSI/NFPA 101
 Maximum Flame Spread Index
 ½" - 15, 1" - 10
 Maximum Smoke Developed Index
 ½" - 200, 1" - 180

Physical/Chemical Properties:

- Acoustical Performance
 ASTM C423 (see table)
- Thermal Performance ASTM C518
 ½" - 2.10, 1" - 3.59

- Water Vapor Sorption
 < 0.4% by weight
- Weather Resistance
 No change in appearance

6. INSTALLATION

ReCore® Multi-Purpose Insulation is applied directly to dywall, concrete, CMU, or other ASTM E 84, Class 1 or A material. ReCore® can be cut and installed using standard tools.

ReCore® can also be used as a component of pre-made acoustical and tackable panels, modular panel systems, as well as ceiling tiles, baffles, clouds, and diffusers.

7. AVAILABILITY AND COST.

ReCore® is sold worldwide. For availability and cost contact your local contractor, Fabricmate Systems Dealer, or contact Fabricmate Systems directly at (866)622-2996 or via e-mail at fmsales@fabricmate.com.

ACOUSTICAL PERFORMANCE									
PRODUCT		ABSORPTION COEFFICIENTS							NRC
		@ OCTAVE BAND CENTER FREQUENCIES							
Type	Thickness		125	250	500	1000	2000	4000	
	in.	mm.							
W1	½	13	0.03	0.1	0.6	0.65	0.88	1.05	0.50
	1	25	0.15	0.28	0.66	1.02	1.03	0.91	0.80