# GUARDIAN FIBERGLASS - HELPING TO KEEP THE PLANET "GREEN"

Producing safe and reliable products, operating a healthy work place, and assuring the efficient use and preservation of natural resources are integral parts of Guardian's philosophy and business practices. One of Guardian's objectives is to minimize the generation of wastes and maximize use of safe and sustainable sources of raw materials and energy. This objective is met in the fiberglass manufacturing process.

#### Fiberglass insulation contains:

- · Mineral substances processed from molten state to an incombustible fibrous form.
- 30% post-consumer recycled glass and 5% post-industrial recycled glass.
- Silica sand, a virtually inexhaustible resource (NAIMA Pub. No. N044 11/06).

According to NAIMA, these resources produce a product that saves 12 times the energy used to produce it in the first year of installation.

## The U.S. Green Building Council (USGBC)



- · Is dedicated to expanding green building practices and education (www.usgbc.org).
- LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™. LEED®
  provides the complete foundation for assessing building performance and meeting sustainability goals over
  six categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources,
  Indoor Environmental Quality and Innovation.
- Guardian fiberglass products may help contribute to points in four of six LEED® categories (Pub. No. N044 11/06). These credits apply to both LEED-NC and LEED-EB unless otherwise noted.

#### Energy & Atmosphere

- EA Prerequisite 2: Minimum Energy Performance. Mandatory.
- EA Credit 1: Optimize Energy Performance

#### Materials & Resources

- MR Credit 2.1 (LEED-NC Only): Construction Waste Management: Divert 50% From Disposal
- MR Credit 2.2 (LEED-NC Only): Construction Waste Management: Divert 75% From Disposal
- MR Credit 2.1-2.5 (LEED-EB Only): Optimize Use of Alternative Materials
- MR Credit 4.1 (LEED-NC Only): Recycled Content: 10%
- MR Credit 4.2 Recycled Content 20%
- MR Credit 5.1 (LEED-NC Only): Regional Materials: 10% Extracted, Processed & Manufactured Regionally
- MR Credit 5.2 (LEED-NC Only): Regional Materials: 20% Extracted, Processed & Manufactured Regionally
- · MR Credit 6 Rapidly Renewable Materials

#### Indoor Environmental Air Quality

- EQ Credit 3.2 LEED-NC/IEQ Credit 3 LEED-EB: Construction Indoor Air Quality (IAQ) Management Plan: Before Occupancy
- EQ Credit 7.1 LEED-NC/IEQ Credit 7.1 LEED-EB: Thermal Comfort: Design

#### Innovation & Design Process

 ID Credit 1-1.4 LEED-NC/IOUN Credit 1.1 LEED-EB: Innovation in Design www.usgbc.org

## Greenguard Certification™



- Greenguard certification is a voluntary program available to all manufacturers and their suppliers.
- Third-party product certification program based on proven emissions standards.
- · Mission is to improve public health and quality of life through programs that improve indoor air quality.
- Greenguard Children & Schools Certification complies with CA 01350 for testing of chemical emissions.
- Products are retested annually.

www.greenguard.org

#### **ENERGY STAR Partnered**



- ENERGY STAR is a joint program of the U.S. EPA and the Department of Energy.
- ENERGY STAR labeled products can lead to lower energy bills and help protect the environment while providing desired features and performance. (ENERGY STAR - the Power to Protect the Environment through Energy Efficiency.)
- Air Sealing and Insulating, as advocated by ENERGY STAR creates home comfort, energy efficiency, and reduces greenhouse gases.

www.energystar.gov

#### Miscellaneous Data

- Heating and cooling account for 50 to 70% of the energy used in the average American home.
- Insulating your home saves money and our nation's limited energy resources.
- One of the most cost effective ways to reduce greenhouse gas emissions is to properly insulate your home. According
  to a 2007 McKinsey Global Institute study, 103 million barrels of oil could be saved each year if all of the underinsulated homes in America were properly insulated.

### **Green Products**

Although there is no current official definition of what a "Green" product is, we believe the following attributes constitute "Greenness" in a product:

- Recycled Content. All Guardian Fiberglass contains 35% recycled glass, 30% post-consumer, and 5% post-industrial.
- Conserves Natural Resources. Fiberglass Insulation is made with sand, a renewable resource. (Sand, A Renewable and Virtually Inexhaustible Resource.)
- · Minimize VOC. Guardian Fiberglass products are Greenguard certified.
- Save Energy. Insulation's innate feature is to save energy.
- Contribute to a Safe, Healthy Environment. Guardian Fiberglass has Greenguard certification and improves noise control by contributing to good sound transmission class (STC).

