The GREENEST insulation product in the marketplace

:: Naturally Green Product
:: LEED Certification
:: ICC-ES SAVE™ Verified Product
:: Energy Efficient
:: Sound Absorbing
:: Cost Saving Firewall Designs
:: Mold Resistant

nuwool.com
800.748.0128
Nu-Wool Premium Cellulose Insulation is Superior in Performance to Fiberglass Insulation

Nu-Wool Premium Cellulose Insulation is an energy-saving insulation made from recycled paper. With its superior thermal and air infiltration properties, Nu-Wool Premium Cellulose Insulation is installed in both attics and walls of residential and commercial buildings. This environmentally friendly, “green” insulation provides up to 40%* savings on energy bills when compared to fiberglass insulation materials.

The Nu-Wool WALLSEAL® System is the process by which Nu-Wool Premium Cellulose Insulation is sprayed-in-place into the wall cavities of new construction. When installed in this manner, the insulation is referred to as “WALLSEAL.” When properly installed to a density of 3.0 to 3.5 lbs/ft³ WALLSEAL will not settle in the wall cavity. Nu-Wool WALLSEAL is an insulation product high in R-value made by Nu-Wool Co., Inc., a business with over 60 years of proven performance standards.

Nu-Wool WALLSEAL minimizes air infiltration by eliminating the voids and air pockets common with other insulation materials. Density, or weight per cubic foot, which is important in reducing air infiltration and increasing “Effective R-value,” is more consistent with the Nu-Wool WALLSEAL system. The customer can actually see the insulation in place and know that all of the areas in a wall are insulated.

Laboratory R-value* vs. Real-World R-value+

A machine in a laboratory gives a relative number that can be used to compare products, but a laboratory R-value does not tell everything you need to know about the effectiveness of those products. Insulation is subjected to a wide range of temperature conditions in a house. The insulation is affected by air movement, and it is also degraded by the convection forces that develop within the insulation material. Some insulation materials, through installation, have more leaks – reducing the “Effective R-value”. Nu-Wool Insulation, when properly installed, greatly reduces air leakage, providing a superior R-value in “real world” environments, where it counts. Nu-Wool’s higher “Effective R-value” results in energy savings of up to 40%* compared to fiberglass insulation.

Air Leakage

Research shows that air leakage into and out of the building envelope is a primary factor in heat loss and moisture accumulation. Because air infiltration can account for between 25% and 45% of the total heat loss in a typical structure, the R-value of an insulation material alone is not a true measure of its effectiveness.

Nu-Wool’s Execution of LEED Goals

“Dollar for dollar, Nu-Wool Premium Cellulose Insulation provides 20 times more post-consumer recycled content than traditional fiberglass.”

Nu-Wool’s Post Consumer Recycled Content

Post-Consumer 65.83%

Total Recycled 85.83%

Source: ICC-ES SAVE: Verification of Attributes Report (VAR-1005)

Choosing Nu-Wool Premium Cellulose Insulation for your project can earn significant points toward LEED certification.

Energy & Atmosphere

Prereq 2 Minimum Energy Performance – Required

Nu-Wool attic and wall insulation reduces the air infiltration of buildings allowing equipment to be downsized. A reduction in air infiltration directly relates to reduced dependence on fossil fuels which reduces air pollution. Buildings using this insulation easily meet and exceed the ASHRAE/IESNA 90.1-2004 standards.

Credit 1 Optimize Energy Performance – 1-10 points

Nu-Wool has used computer simulations since 1987 to demonstrate reduced energy costs. Nu-Wool can demonstrate from energy simulation software that design loads are less than loads using standards from ASHRAE/IESNA 90.1-2004, Section 11.

Materials & Resources

Credit 4.1 Recycled Content: Specify 10% (post consumer + ½ pre-consumer) – 1 point

Nu-Wool attic and wall insulation is 85% post consumer.

Credit 4.2 Recycled Content – Specify 20% (post consumer + ½ pre-consumer) – 1 point

Credit 5.1 Local Regional Materials: 10% Manufactured Locally – 1 point

Credit 5.2 Local Regional Materials: 20% MRc5.1, 50% Harvested Locally – 1 point

Nu-Wool attic and wall insulation is manufactured in Jenison, Michigan ZIP 49428 and Belchertown, Massachusetts, ZIP 01007. Projects within 500 miles of these locations qualify. * Based on project cost

Dollar for dollar, Nu-Wool Premium Cellulose Insulation provides 20 times more post-consumer recycled content than traditional fiberglass.
Nu-Wool is a “Sound” Decision for Residential and Commercial Projects

Controlling Sound Transmission
Controlling the movement of sound from room to room is important in hotels, apartments, condominiums, offices, medical facilities, etc. Although sound easily travels through the air, it can also travel through building materials and assemblies, such as walls, floors and ceilings. The Sound Transmission Classification (STC) of a wall assembly is a measurement of how the wall transmits airborne sound from one side of the wall to the other side of the wall. The higher the STC rating, the better the wall controls sound transmission. There are three main factors that contribute to sound transmission through walls: stiffness, balance and mass.

Wall Stiffness – Build to Flex
The stiffness of the wall affects its sound transmission characteristics. The stiffer the wall, the more sound it will transmit. The use of resilient channel (RC) before the drywall is attached is an effective way of improving the sound characteristics of a wall. RC makes a wall more flexible, enabling the wall to flex under sound pressure, thus transmitting less sound through the wall.

Nu-Wool’s Mold-Resistant Formula

Mold growth in buildings, particularly in residential buildings, is of great concern to consumers, builders, architects, insurers, and building material suppliers and manufacturers. Nu-Wool Co., Inc. has long been on the forefront of the fight against mold to ensure buildings using Nu-Wool WALLSEAL are healthy buildings.

Nu-Wool Premium Cellulose Insulation is one of the few insulation products that contains a fungicide registered by the Environmental Protection Agency (EPA). Registration is achieved only after rigorous testing to ensure that the borate-based fungicide makes Nu-Wool Insulation resistant to the growth of mold, even when exposed to conditions favorable to mold growth.

All Nu-Wool Insulation products are made with a boron-based, EPA registered fungicide, which makes the insulation resistant to mold. Under federal law, a claim of mold resistance can only be made by a product which contains a fungicide registered with the EPA for use in that product. Most insulation products do not contain such additives, but Nu-Wool Premium Cellulose Insulation does. Nu-Wool’s 100% boron treatment makes Nu-Wool Premium Cellulose Insulation a superior, more effective insulation.

Nu-Wool’s Cost-Saving Firewalls

Nu-Wool has engineered three proprietary, load-bearing, UL-approved, cost-saving firewall designs. UL Design U382 is a 2.5 hour firewall using Nu-Wool WALLSEAL Fire and Sound Insulation and only one layer of type C drywall on each side, an industry first, making it significantly less costly than a 2-hour shaft wall. The base STC rating of 53 can be increased to 58 or 63 by adding one or two additional layers of drywall. UL design U360 is a 2-hour, load-bearing firewall tested by UL that uses only three layers of 5/8” type X drywall – resulting in savings of 25% on drywall labor and materials. Sound-absorbing UL design U369 has a high STC rating of 58, making it the design choice for sound control. Additionally, Nu-Wool Premium Cellulose Insulation is an approved for use in over 50 non-proprietary UL-approved firewall designs.

*Sound Transmission Classification (STC) ratings apply to airborne sound only.

Two and One-Half Hour Firewall
Using two layers of 5/8 in. Type C Gypsum Wallboard Design No. U382
Underwriters Laboratories Bearing Wall Rating 2.5 Hr.
Riverbank Acoustical Laboratories STC Rating: 53, 58, 63

Cost-Saving Firewalls
CSI 3-Part Specification


ES Report: ESR-2217

ICC Evaluation Service, Inc. (ICC-ES) is a nonprofit, public-benefit corporation that does technical evaluations of building products, components, methods, and materials. The evaluation process culminates with the issuance of technical reports that, because they directly address the issue of code compliance, are extremely useful to both regulatory agencies and building-product manufacturers. ICC-ES evaluation reports provide evidence that products and systems meet code requirements (www.icc-es.org). The complete ESR-2217 report of Nu-Wool Premium Cellulose Insulation is available at www.nuwool.com or www.icc-es.org.

ICC-ES SAVE verified GREEN product

Nu-Wool Premium Cellulose Insulation is the first cellulose insulation product to be evaluated and verified by the ICC-ES Save™ Program.

The Sustainable Attributes Verification and Evaluation™ Program (SAVE™) is a new program created by ICC Evaluation Service (ICC-ES) to provide reliable information about claims made by manufacturers of sustainable products. The evaluation, based on guidelines for sustainability, includes inspection of the manufacturer’s production process and product testing at recognized laboratories, where applicable. The end result is a Verification of Attributes Report™ (VAR™), which provides technically accurate product information that can be helpful to those seeking to qualify for points under major green rating systems. The VAR™ report for Nu-Wool Premium Cellulose Insulation is VAR-1005 and can be viewed at www.nuwool.com or www.saveprogram.icc-es.org.

Underwriters Laboratories Inc. Classified Loose Fill Material

Classified in accordance with the following ASTM C-739 Characteristics.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
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<tbody>
<tr>
<td>Flammability Characteristics:</td>
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<tr>
<td>Critical Radiant Flux:</td>
<td>Greater than or equal to 0.12w/cm²</td>
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<tr>
<td>Smoldering Combustion:</td>
<td>Less than or equal to 15.0%</td>
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<td>Environmental Characteristics:</td>
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<td>Corrosiveness:</td>
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<td>Fungal Growth:</td>
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<td>Physical Characteristics:</td>
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<tr>
<td>Density (settled):</td>
<td>1.6 pcf</td>
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<td>Thermal Resistance:</td>
<td>3.8 R (in.) (HH-I-515-E)</td>
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<td>Moisture Absorption:</td>
<td>Acceptable</td>
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<td>Odor Emission:</td>
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<tr>
<td>Starch Content:</td>
<td>Negative</td>
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For more information, contact the technical department of Nu-Wool Co., Inc., call BuyLine or visit www.sweets.com

*Savings vary. Find out why in the seller’s fact sheet on R-values. Higher R-values mean greater insulating power.

*R-value testing is regulated by the Federal Trade Commission. The use of R-value tests allows the consumer to make choices based on the relative values for different products.

NU-WOOL
PREMIUM CELLULOSE INSULATION
GREEN Since 1949

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