



Owens Corning™ Air Handling Insulation

HELPING YOU ACHIEVE LEED® CERTIFICATION

INNOVATIONS FOR LIVING®



Owens Corning™ air handling insulation products help improve thermal performance, moisture control, and sound quality in commercial buildings. This document applies to the LEED New Construction and Major Renovations, LEED Commercial Interiors, LEED Core & Shell, LEED for Schools and LEED for Existing Buildings, Operations & Maintenance products. As you pursue LEED Certification, rely on the products and expertise of Owens Corning™.

LEED Certification and the awarding of credits, is based on the overall project design, properly designed building systems and assemblies, and the performance of the project as a whole. Owens Corning™ Air Handling Insulation Products can be a component of many of these systems and assemblies, with all components within those systems and assemblies considered to assess compliance with the LEED Rating System used for certification within a given category. Owens Corning™ Air Handling Insulation Products contribute to the categories listed below.

Owens Corning™ Air Handling Insulation Products:

- QuietR® Duct Liner Board
- QuietR® Textile Duct Liner
- QuietR® Rotary Duct Liner
- QuietR® Duct Board
- QuietZone® Spiral Duct Liner
- SoftR® Duct Wrap FRK

Table 1 (Chart continued on next page)

Contribution to LEED Requirement

| LEED Credit Category | LEED Requirement | Owens Corning™ Product Contribution |
|---|---|--|
| Energy and Atmosphere (EA)– Prerequisite 2: Minimum Energy Performance Credit 1: Optimize Energy Performance (1-19 points) Credit 1.3: Optimize Energy Performance (HVAC) (5-10 points) | 10% performance improvement for new buildings or 5% better performance for renovated existing buildings, with baseline building performance rating calculated per method in Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 for whole building simulation. Improve building performance rating compared with the baseline building performance rating, calculated per Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 a whole project simulation model, with points awarded per energy cost savings in LEED table. Improve building performance rating compared with the baseline building performance rating, calculated per Appendix G of ANSI/ASHRAE/IESNA Standard 90.1-2007 a whole project simulation model, with points awarded per energy cost savings in LEED table. | Air Handling Insulation helps reduce building energy demand while improving thermal comfort for the occupants. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency. Air Handling Insulation helps reduce building energy demand while improving thermal comfort for the occupants. The overall contribution depends on the R-value used and the U-value of the building system or construction assembly where insulation is used. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency. Air Handling Insulation helps reduce building energy demand while improving thermal comfort for the occupants. The overall contribution depends on the R-value used and the U-value of the building system or construction assembly where insulation is used. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency. |
| Materials & Resources (MR)– Credit 4: Recycled Content (1-2 points) Credit 5: Regional Material (1-2 points) | Materials with recycled content such that the sum of post-consumer recycled content plus ½ of the pre-consumer content constitutes at least 10% (1 point) or 20% (2 points), based on cost, of the total value of the materials in the project. Materials/products extracted and manufactured (or fraction thereof) within 500 miles of project site for a minimum of 10% (1 point) or 20% (2 points), based on cost, of the total materials value (fractional quantities contribute as percentage by weight). | Air Handling Insulation products contain 55% pre-consumer recycled content. Recycled content certification by Scientific Certifications Systems: www.sccertified.com . Air Handling Insulation is made in 2 U.S. manufacturing plants to provide regionally available material manufactured and sourced within a 500 mile radius of project locations in some areas of the country. Check with local sales representative, and refer to Fig. 1 to determine finish material place of origin. |

Table I (Continued)

Contribution to LEED Requirement

| LEED Credit Category | LEED Requirement | Owens Corning™ Product Contribution |
|--|--|--|
| <p>Indoor Environmental Quality (IEQ)– Prerequisite 3: Minimum Acoustic Performance</p> <p>Credit 4.6: Low Emitting Materials (1-4 points)</p> <p>Credit 7 & 7.1: Thermal Comfort (1 point each)</p> <p>Credit 9: Enhanced Acoustical Performance (1 point)</p> <p>Credit 10: Mold Prevention (1 point)</p> | <p>Classrooms and core learning spaces with background noise from HVAC systems at 45 dBA or less, and have reverberation times per the ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools.</p> <p>Meet California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda for all interior products, including insulation.</p> <p>Design HVAC systems and building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Demonstrate design compliance in accordance with the Section 6.1.1 documentation.</p> <p>Apply ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools for STC rating of building shell, classroom and core learning space partitions; HVAC background noise at 40 dBA; windows at least STC 35.</p> <p>Added to IEQ Credits 3.1, 7.1, and 7.2, HVAC systems/controls limit RH to 60% and IAQ program based on U.S. EPA document, Building Air Quality: A Guide for Building Owners and Facility Managers, EPA reference number 402-F-91-102, December 1991.</p> | <p>Air Handling Insulation is effective in reducing noise transfer through the HVAC system and improving room sound quality. See individual product data sheets for details.</p> <p>Air Handling Insulation is GREENGUARD Certified for Low Emitting Products: IAQ and Children and Schools. Additional verification can be found at www.greenguard.org.</p> <p>Air Handling Insulation contributes to a comfortable thermal environment in delivering the required conditioned air through the HVAC system. See individual product data sheets for details, and check with local sales representative for product applications.</p> <p>Air Handling Insulation is effective in reducing noise transfer through the HVAC system and improving room sound quality. See individual product data sheets for details.</p> <p>Air Handling Insulation products do not promote mold growth when tested in accordance with ASTM C1338 and /or UL 181. See individual product data sheets for details.</p> |
| <p>Innovation in Design (ID)– (1-4 points)</p> | <p>Credit can be achieved through any combination of the Innovation in Design and Exemplary Performance.</p> | <p>Refer to individual product data sheets or check with the local sales representative for product applications.</p> |

*Except for QuietR® Duct Liner Board

Note: No individual material enables a credit point to be taken within LEED because each category is dependent on the aggregate of all materials and their proportionate relationship to the total dollar cost of all materials.

Figure 1

Owens Corning™ Air Handling Insulation Plant Locations



To view other Owens Corning™ products that help contribute to LEED certification please visit <http://sustainability.owenscorning.com/> and download Pub. No. 10011611.



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