

Air Distribution Insulation

Helping you achieve LEED® Certifications



Owens Corning® offers a number of products to help improve thermal performance, moisture control, durability and sound quality in commercial buildings. This document applies to the LEED 2009 and LEED v4 for Building Design and Construction (BD + C), New Construction (Core and Shell, Schools, Retail, Data Centers, Warehouses and Distribution Centers, Hospitality, and Healthcare). 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® products can be a component of many of these systems and assemblies. All components within those systems and assemblies should be considered to assess compliance with the LEED® Rating System within a given category.

Owens Corning® Air Distribution Insulation Products contribute to the categories listed below.

Owens Corning® Air Distribution Insulation Products:

- QuietR® Rotary Duct Liner
- QuietR® Duct Board
- QuietR® Spiral Duct Liner
- SoftR® Duct Wrap FRK
- Fiberglas™ 700 series (703, 705)
- QuietR® Duct Liner HD-Roll
- EcoTouch® Insulation for Flexible Duct
- RA Series EcoTouch® Insulation

Table 1

| Credit Category | LEED® v4 Requirement | LEED® 2009 Requirement | Owens Corning® Product Contribution |
|---|---|---|---|
| Energy and Atmosphere (EA) | | | |
| Minimum Energy Performance- Prerequisite 2: | Whole Building Energy Simulation Performance improvement or Prescriptive Compliance in accordance with ANSI/ ASHRAE/IESNA Standard 90.1-2010, | Whole Building Energy Simulation Performance improvement dependent on building type, baseline performance according to ANSI/ ASHRAE/IESNA Standard 90.1-2007, Appendix G. | Owens Corning® Air Distribution Insulation Products help reduce building energy demand while improving thermal comfort for occupants. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency. |
| Optimize Energy Performance | Whole Building Energy Simulation improvement beyond prerequisite or Prescriptive Compliance using ASHRAE 50% Advanced Energy Design. | Improved performance rating compared with baseline building performance rating per ANSI/ ASHRAE/IESNA Standard 90.1-2007, Appendix G. | Owens Corning® Air Distribution Insulation Products help reduce building energy demand while improving thermal comfort for the occupants. Dependent on U-value of construction assembly. Project team responsible for conducting energy analysis to determine the overall building energy efficiency. |
| Materials & Resources (MR) | | | |
| Building Product Disclosure & Optimization- Environmental Product Declaration | Use at least 20 different permanently installed products sourced from at least five different manufacturers that have third-party certified EPD | NA | Owens Corning® Air Distribution Insulation Products carry third party certified EPDs. See UL.com/EPD for certifications. The following products have EPD certifications: <ul style="list-style-type: none"> ▪ QuietR® Duct Board ▪ SoftR® Duct Wrap FRK ▪ Fiberglas™ 700 series (703, 705) ▪ EcoTouch® Insulation for Flexible Duct |
| Raw Material Source and Extraction Reporting | Sum of postconsumer recycled content plus ½ the pre-consumer recycled content, constitutes 25%, by cost, of the total value of the project. Products sourced within 100 miles (160 km) of project site valued at 200% of cost. | Sum of post-consumer recycled content plus ½ the pre-consumer content by cost, of the total value of the project. Products sourced within 500 miles of project site by cost, of the total materials value. | Air Distribution Insulations are made in 2 U.S. plants to provide regionally available material and contain a minimum 22% post-consumer and 31% pre-consumer recycled content, 53% total. Some products have higher content, so check with 1-800-GET-PINK®. |
| Building Product Disclosure and Optimization Material Ingredients | Products with chemical inventory to at least 0.1% (1000 ppm); have Declare, Cradle to Cradle (at least Bronze), or Cradle to Cradle Material Health Certification (Bronze or higher) and 90% of materials assessed by weight. | NA | Owens Corning® Air Distribution Insulation products have Cradle to Cradle Material Health Certification (Bronze level). |

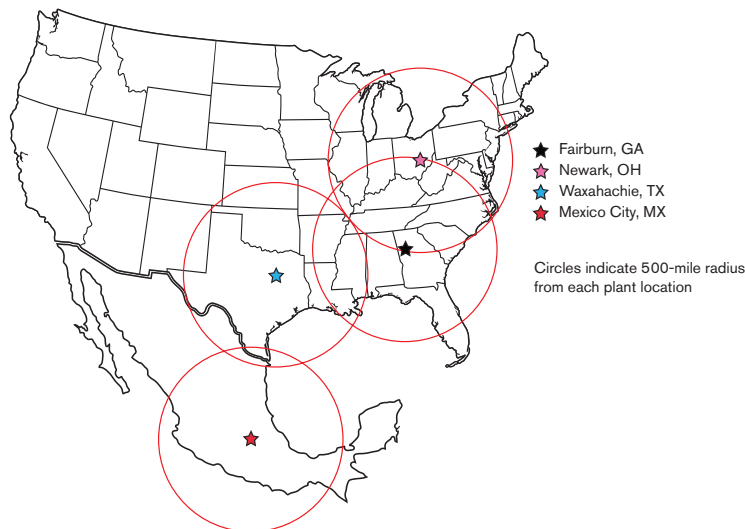
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Table 1 (continued)

| Credit Category | LEED® v4 Requirement | LEED® 2009 Requirement | Owens Corning® Product Contribution |
|---|--|--|---|
| Construction and Demolition Waste Management | Recycle and/or salvage nonhazardous construction and demolition materials. Diversion % of the total construction and demolition material; diverted materials include at least three material streams. | Use salvaged, refurbished or reused materials, which constitute at least 5% (1 point) or 10% (2 points), based on cost, of the total value of materials on the project. | Owens Corning® Air Distribution Insulation products can be removed from demolition projects and reused in new construction. Please refer to Owens Corning® Air Distribution Insulation product specifications for recommended storage and installation of materials. |
| Indoor Environmental Quality (EQ) | | | |
| Minimum Acoustic Performance Prerequisite 3: | For Classrooms < 20,000 cf materials with NRC of 0.70 or higher to be included in calculation. Or confirm rooms designed to meet reverberation time requirements as specified ANSI Standard S12.60-2010 | Classrooms background noise from HVAC systems at 45 dBA or less, and reverberation times per ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools. | Most Owens Corning® Air Distribution Insulation products are effective in reducing noise transfer through the HVAC system and improving room sound quality. See individual product data sheets for details. Please note that SoftR DUCT Wrap FRK and Fiberglas™ 700 series (703, 705) products do not meet EQ- prerequisite 3 requirements. |
| Low Emitting Materials (EQ) | Achieve 100% threshold level of compliance with emissions and content standards for Ceilings, walls, thermal, and acoustic insulation per LEED Table 2. | 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 | Certified for Low Emitting Products: IAQ and GREENGUARD, and GREENGUARD GOLD (1" thickness only) Certified. Additional verification can be found at http://productguide.ulenvironment.com |
| Thermal Comfort | Design HVAC systems and building envelope to meet ASHRAE Standard 55-2010, Thermal Comfort Conditions for Human Occupancy with errata or a local equivalent. | Design HVAC systems and building envelope to meet the requirements of ASHRAE Standard 55-2004, Thermal Comfort Conditions for Human Occupancy. Design compliance in accordance with the Section 6.1.1. | Air Distribution 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. |
| Acoustic Performance | Design classrooms and other core learning spaces to meet the sound transmission class (STC) requirements of ANSI S12.60-2010 Part 1, or a local equivalent. | 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. | Air Distribution Insulation is effective in reducing noise transfer through the HVAC system and improving room sound quality. See individual product data sheets for details. |
| Mold Prevention | Credit requirements moved to "Thermal Comfort" credit. | 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. | Air Distribution Insulation products do not promote mold growth when tested in accordance with ASTM C-1338 and /or UL 181. See individual product data sheets for details. |

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 Distribution Insulation Plant Locations



To view other Owens Corning® products that help contribute to LEED® certification please visit sustainability.owenscorning.com



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