



# Owens Corning® FOAMULAR® XPS Commercial Insulation

HELPING YOU ACHIEVE LEED® CERTIFICATION



Owens Corning® Insulation products help improve thermal performance and control moisture in commercial, institutional and high-rise residential 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 construction assemblies, and the performance of the project as a whole. FOAMULAR® XPS Insulation 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® FOAMULAR® XPS Commercial Insulation contributes to the categories listed below.

## Owens Corning® FOAMULAR® XPS Commercial Insulation Products:

- FOAMULAR® 150 Insulation
- FOAMULAR® 250 Insulation
- FOAMULAR® 400 Insulation
- FOAMULAR® 600 Insulation
- FOAMULAR® 1000 Insulation
- FOAMULAR® Insulating Sheathing
- FOAMULAR® PROPINK® Sheathing
- FOAMULAR® CW 15, CW 25
- FOAMULAR® High-R CW Plus
- FOAMULAR® InsulPink®, InsulPink® Z Insulation
- FOAMULAR® LT30, LT40
- FOAMULAR® Insul-Drain® Board

**Table 1 (Chart continued on next page)**

Contribution to LEED® Requirement

LEED® Credit Category	LEED® Requirement	Owens Corning® Product Contribution
<b>Energy and Atmosphere (EA)–</b> Prerequisite 2: Minimum Energy Performance  Credit 1: Optimize Energy Performance (1-19 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.	FOAMULAR® XPS Building Insulation helps 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.  FOAMULAR® XPS Building Insulation helps reduce building energy demand while improving thermal comfort for the occupants. The overall contribution is dependent on the R-value used as well as the U-value of the regionally appropriate design of the building system or construction assembly in which the FOAMULAR® is used. The project team is responsible for conducting the energy analysis to determine the overall building energy efficiency.
<b>Materials &amp; Resources (MR)–</b> Credit 3: Material Reuse (1-2 points)  Credit 4: Recycled Content (1-2 points)  Credit 5: Regional Material (1-2 points)	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.  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).	FOAMULAR® XPS Building Insulation can be removed and reused.  FOAMULAR® XPS Building Insulation products contain 20% pre-consumer recycled content. Recycled content certification by Scientific Certifications Systems: <a href="http://www.scs-certified.com">www.scs-certified.com</a> .  FOAMULAR® XPS Building Insulation, 3 U.S. and 1 Canadian manufacturing plants provide regionally available material manufactured and sourced in most areas. FOAMULAR® XPS insulation plant locations are shown in Fig. 1 with approximate 500-mile radii for each plant. Contact 1-800-GET PINK® for additional information.

**Table I (Continued)**

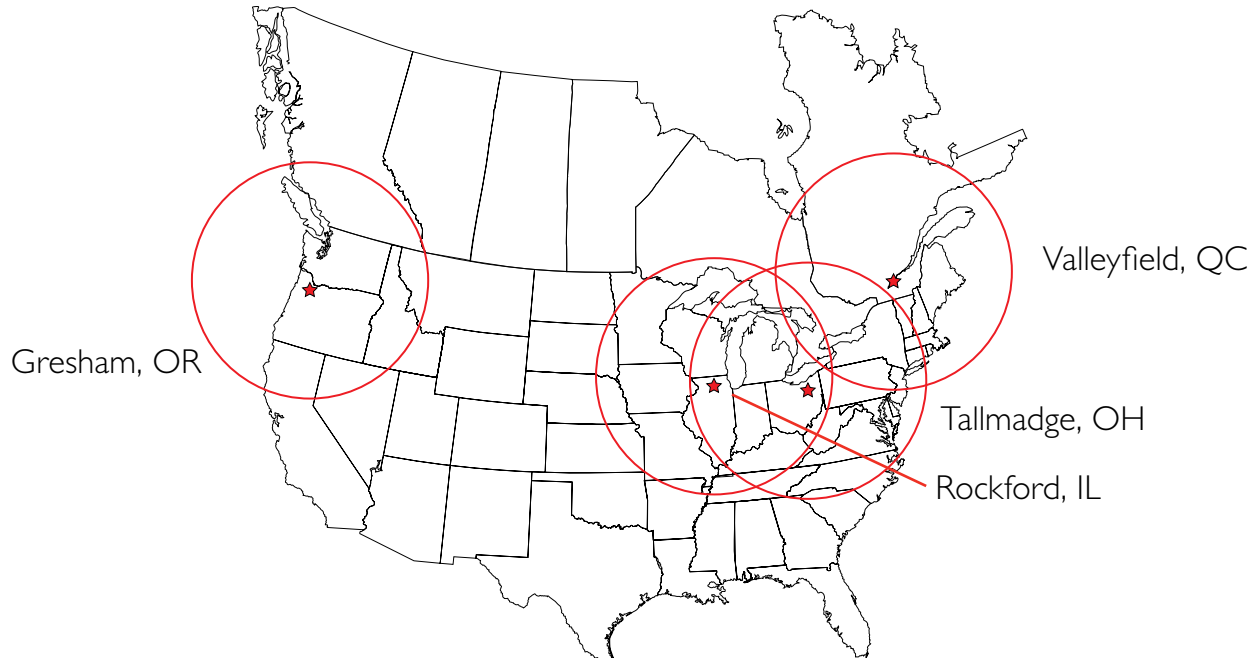
Contribution to LEED® Requirement

LEED® Credit Category	LEED® Requirement	Owens Corning® Product Contribution
<p><b>Indoor Environmental Quality (IEQ)–</b> Credit 4.6: Low Emitting Materials (1-4 points)</p> <p>Credit 7 &amp; 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>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>FOAMULAR® XPS Building Insulation is GREENGUARD Certified for Low Emitting Products: IAQ and Children and Schools. Additional verification can be found at <a href="http://www.greenguard.org">www.greenguard.org</a>.</p> <p>FOAMULAR® XPS Building Insulations contribute to a comfortable thermal environment. See individual product data sheets for details, and check with local sales representative for product applications.</p> <p>FOAMULAR® XPS Building Insulations, when installed as a sheathing material on the exterior face of the exterior wall assembly with the joints sealed with mastic or joint tape, will minimize the gaps and openings in the construction assembly, known sources contributing to diminished acoustical performance. See individual product data sheets for details.</p> <p>FOAMULAR® XPS Building Insulation is used as a continuous insulation layer, helping to manage the dew point location, minimizing moisture condensation in an assembly. With joints properly sealed, FOAMULAR® XPS provides a water resistive barrier layer. FOAMULAR® XPS Insulation has excellent resistance to moisture and does not support mold growth. See individual product data sheets for details.</p>
<p><b>Innovation in Design (ID)–</b> (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>

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 I**

Owens Corning® FOAMULAR® XPS Commercial 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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