



Using GAF Products on LEED® Projects

ThermaCal® 1 Ventilating Roof Insulation Panels ThermaCal® 2 Ventilating Roof Insulation Panels ThermaCal® Non-Ventilating Roof Insulation Panels ThermaCal® Wall – Exterior Wall Insulation Panels

LEED® v4 for BD+C: New Construction

The following are LEED® credits that GAF CornelI™ Building Envelope Insulation Panels may contribute to:

EA Prerequisite 2: Minimum Energy Performance

Option 1: Whole Building Energy Simulation. Use GAF Cornell™ Building Envelope Insulation Panels to contribute to potential improvements in the proposed building performance rating compared to the baseline building performance rating per ANSI/ASHRAE/IESNA 90.1- 2010. Option 2: Prescriptive Compliance. Use GAF Cornell™ Building Envelope Insulation Panels to contribute to potential improvements in the prescriptive building performance path.

EA Credit 2: Optimize Energy Performance

Option 1: Whole Building Energy Simulation. Use GAF Cornell™ Building Envelope Insulation Panels to contribute to potential improvements in the proposed building performance rating compared to the baseline building performance rating per ANSI/ASHRAE/IESNA 90.1- 2010. Option 2: Prescriptive Compliance. Use GAF Cornell™ Building Envelope Insulation Panels to contribute to potential improvements in the prescriptive building performance path.

MR Credit 3: BPDO1: Sourcing of Raw Materials

Option 2: Leadership Extraction Practices. Credit requirements: Use products that meet at least one of the MRc3 responsible criteria, such as recycled content, for at least 25%, by cost, of the total value of permanently installed building products in the project. All GAF Cornell™ Building Envelope Insulation Panels have both post and pre-consumer recycled content within the polyisocyanurate insulation layer. Recycled content varies depending on the thickness of the panel.

MR Credit 3 - Regional Multiplier: Local Valuation

Products sourced (extracted, manufactured, <u>and</u> purchased) within 100 miles of the project site are valued at 200% of their base contributing cost. GAF Cornell™ Building Envelope Insulation Panels are manufactured in Statesboro, GA, however raw materials of these products are sourced from compounds nationwide and therefore do not contribute to the Local Valuation multiplier for this credit.

EQ Credit 2: Low-Emitting Materials

GAF Cornell™ Building Envelope Insulation Panels are exempt from EQc2 requirements when installed on the building exterior, as LEED® defines as "everything outside and inclusive of the primary and secondary waterproofing system, such as waterproofing membranes and air-and-

Note:

¹ BPDO stands for Building Product Disclosure and Optimization

Refer to http://gaf.ecoscorecard.com to evaluate GAF Cornell™ Building Envelope Insulation Panels and potential LEED® credits or download the "GAF Green Building Playbook" on GAF's website www.gaf.com. For more information regarding GAF Cornell Building Envelope Insulation Panels and potential LEED® credits, please contact Technical Services at 1-800-766-3411.

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LEED® v4 for Homes

The following are LEED® credits that GAF Cornell™ Building Envelope Insulation Panels may contribute to:

EA Prerequisite 1: Minimum Energy Performance

Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards meeting minimum performance levels of all mandatory measures of ENERGY STAR for HOMES, version 3 that calls for increased insulation and reduced thermal bridging. Also, achieve a HERS Index rating that meets or exceeds the ENERGY STAR HERS Index Target.

EA Credit 1: Annual Energy Use

Option 1. LEED® Energy Budget. Use GAF CornelI™ Building Envelope Insulation Panels to contribute towards achieving improved annual energy use for a building whose modeled annual energy usage is lower than the LEED® energy budget. The LEED® energy budget is based on the ENERGY STAR for HOMES, HERS Index Target Procedure for National Program Requirements, version 3, with modifications.

Option 2. HERS Index With Home Size Adjuster. Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards achieving improved annual energy use for a home whose modeled annual energy usage achieves a HERS index rating of 70 or better.

EA Credit 7: Air Infiltration

Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards reducing the waste of energy caused by uncontrolled air leakage into and from conditioned spaces. LEED® EAc7 states "Foam insulation, whether sprayed or applied in board form, provides excellent air sealing qualities, reducing the need for separate air barriers."

EA Credit 8: Envelope Insulation

Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards credit achievement by increasing insulation levels and reducing thermal bridging. Installing continuous exterior insulation on the structure is one of two compliance paths for an ENERGY STAR for Homes requirement for this credit.

Note:

potential LEED® credits or download the "GAF Green Building Playbook" on GAF's website www.gaf.com. For more information regarding GAF Cornell Building Envelope Insulation Panels and potential LEED® credits, please contact Technical Services at 1-800-766-3411.

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LEED® v4.1 (Beta) for BD+C: New Construction

The following are LEED® credits that GAF CornelI™ Building Envelope Insulation Panels may contribute to:

EA Prerequisite 2: Minimum Energy Performance

Use GAF Cornell™ Building Envelope Insulation Panels to contribute potential improvements in the energy performance per ANSI/ASHRAE/IESNA 90.1- 2016.

EA Credit 2: Optimize Energy Performance

Use GAF Cornell™ Building Envelope Insulation Panels to contribute potential improvements in the energy performance and reduction of the associated greenhouse gas emissions per ANSI/ASHRAE/IESNA 90.1-2016.

MR Credit 3: BPDO1: Sourcing of Raw Materials

Responsible Sourcing of Raw Materials. Credit requirements: Use products sourced from at least three different manufacturers that meet at least one of the MRc3 responsible sourcing and extraction criteria, such as recycled content, for at least 20%, by cost, of the total value of permanently installed building products in the project (1 pt.).

Use products sourced from at least five different manufacturers that meet at least one of the MRc3 responsible sourcing and extraction criteria, such as recycled content, for at least 40%, by cost, of the total value of permanently installed building products in the project (2 pts.).

All GAF Cornell™ Building Envelope Insulation Panels have both post and pre-consumer recycled content within the polyisocyanurate insulation layer. Recycled content varies depending on the thickness of the panel.

MR Credit 3 - Regional Multiplier: Local Valuation

Products sourced (extracted, manufactured, and purchased) within 100 miles of the project site are valued at twice their base contributing cost (or number of products), up to a maximum of 200% of cost, or 2 products. GAF Cornell™ Building Envelope Insulation Panels are manufactured in Statesboro, GA, however raw materials of these products are sourced from compounds nationwide and therefore do not contribute to the Local Valuation multiplier for this credit.

EQ Credit 2: Low-Emitting Materials

GAF Cornell™ Building Envelope Insulation Panels are exempt from EQc2 requirements when installed on the building exterior, as LEED® defines as "everything outside and inclusive of the primary and secondary waterproofing system, such as waterproofing membranes and air-and-water-resistive barrier materials," except for LEED® for Healthcare and LEED® for Schools.

Note:

¹BPDO stands for Building Product Disclosure and Optimization

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LEED® v4.1 Residential BD+C: Single Family

The following are LEED® credits that GAF CornelI™ Building Envelope Insulation Panels may contribute to:

EA Prerequisite 1: Minimum Energy Performance

Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards meeting minimum performance levels of all mandatory measures of ENERGY STAR for HOMES, version 3, that calls for increased insulation and reduced thermal bridging. Also, for new construction, achieve a HERS Index rating that meets or exceeds the SAF adjusted ENERGY STAR HERS Index Target.

EA Credit 1: Annual Energy Use

Option 1. LEED® Energy Budget. Use GAF CornelI™ Building Envelope Insulation Panels to contribute towards achieving improved annual energy use for a building whose modeled annual energy usage is lower than the LEED® energy budget. The LEED® energy budget is based on the ENERGY STAR for HOMES, HERS Index Target Procedure for National Program Requirements, version 3, with modifications. (Possible 36 pts)

Option 2. HERS Index.

Case 1. New Construction. Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards achieving improved annual energy use for a new home whose modeled annual energy usage achieves a HERS index rating of 70 or better, or whose HERS index rating is at or below the ENERGY STAR HERS Index Target. (Possible 35 pts) Case 2. Major Renovation. Use GAF Cornell™ Building Envelope Insulation Panels to contribute towards achieving improved annual energy use for a home renovation whose modeled annual energy usage achieves a HERS index rating better than 85. (Possible 36 pts)

Note:

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