

SolarCrest™ Solar Roof Systems

LEED 2009 for New Construction & Major Renovations

The following information is provided to assist the LEED project team in determining CENTRIA product contributions toward specific LEED credits. For information not included in this data sheet, please contact CENTRIA, or visit:

www.CENTRIA.com
<http://greenworld.centria.com>

Energy & Atmosphere

EA Credit 1 **Optimize Energy Performance** 1 to 19 Points

SolarCrest Solar Roof Systems have been independently tested for thermal transmittance and can contribute significantly to EA Credit 1 by providing a verifiable insulation value that meets or exceeds the baseline values prescribed in ANSI/ASHRAE/IESNA Standard 90.1-2007. Test reports are available upon request.

Panel Thickness	U-Value (with air film on each side of panel)	R-Value (with air film on each side of panel)
1 ¾"	0.069	14.44
2 ½"	0.052	19.34
4"	0.036	27.41

EA Credit 2 **On-Site Renewable Energy** 1 to 7 Points

SolarCrest Solar Roof Systems incorporate the use of thin film PV technology to create on-site renewable energy which offsets building energy costs. The number of points achieved under EA Credit 2 is determined by the amount of on-site renewable energy produced as a percentage of the building's annual energy costs. On-site renewable energy may not be sold to receive credit unless renewable energy is exceeding the building's demand. (See the LEED 2009 Reference Guide for Green Building Design and Construction).

Percentage Renewable Energy*	Points
1%	1
3%	2
5%	3
7%	4
9%	5
11%	6
13%	7

*To determine the building's estimated electricity use, see the LEED 2009 Reference Guide for Green Building Design and Construction, EA Credit 1: Optimize Energy Performance; or the U.S. Department of Energy's Commercial Buildings Energy Consumption Survey database.

Materials & Resources

MR Credit 4

Recycled Content: 10%

1 Point

Recycled Content: 20%

2 Points

				Percentage of Recycled Content by Weight		
Panel Thickness	Panel Module	Face Panel Gage	Liner Panel Gage	Post-Consumer	Pre-Consumer	Total
1 ¾"	36"	26	26	16.3 %	4.3 %	20.6 %
2 ½"	36"	26	26	15.4 %	4.1 %	19.5 %
4"	36"	26	26	13.8 %	3.7 %	17.5 %

*These values are based on calculations in accordance with the procedure detailed in the LEED 2009 Reference Guide for Green Building Design and Construction.

MR Credit 5	Regional Materials: 10%	1 Point
	Regional Materials: 20%	2 Points

SolarCrest Solar Roof Systems are engineered insulated composite panels comprised of a variety of components such as galvanized steel or other metals, coatings, foam insulation, sealants, and photovoltaic modules. Although the finished panels are manufactured at CENTRIA’s facility in Sheridan, Arkansas, the panel components are made from a variety of raw materials and fabricated in a variety of locations. Given the complexity of such a multi-component system, it is not possible to verify and document a primary location of material extraction or processing. Therefore, CENTRIA suggests that SolarCrest Solar Roof Systems not be included in the calculations for MR Credit 5.

Indoor Environmental Quality

IEQ Credit 4.1	Low-Emitting Materials: Adhesives and Sealants	1 Point
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This credit requires that the VOC content of all adhesives and sealants used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site) must be less than the limits established by the South Coast Air Quality Management District, Rule #1168. The field-applied sealant (Tremco JS-773) used with SolarCrest Solar Roof Systems has a VOC content of *180 grams/liter*, which is less than the maximum limit of 250 grams/liter established by this regulation for architectural sealants. Therefore, the Tremco JS-773 sealant meets the requirements of IEQ Credit 4.1.

IEQ Credit 4.2	Low-Emitting Materials: Paints and Coatings	1 Point
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Any coating applied to any surface of these panels is coil-applied prior to forming of the panel, and as a result, no VOCs are generated at the jobsite from field-painting operations.