


WINDOW and CURTAINWALL CONTRIBUTION to LEED® CREDITS

 WAUSAU <small>WINDOW AND WALL SYSTEMS</small>		LEED® 2009 VERSION 3 for NEW CONSTRUCTION and MAJOR RENOVATIONS Wausau Window and Curtainwall Contribution to Credits	
Credit Category	Points Possible	Credits Impacted by Wausau Products	Commentary
Sustainable Sites (SS)	24	None	-
Water Efficiency (WE)	11	None	-
Energy and Atmosphere (EA)	33	1 Optimize Energy Performance 2 On-Site Renewable Energy	✓ ✓ Wausau's products have long been recognized as some of the industry's best in energy performance. Combined with Viracon high-performance glass, the "right" windows for your building type and climate zone are always available from Wausau. The Wausau " Performance Upgrade Tables " give both "typical" energy performance values, as well as <u>leading-edge</u> standard product options for thermal transmittance (U-Factor) and Solar Heat Gain Coefficient (SHGC). Custom applications with over-size and multi-level polyamide thermal barriers have been developed by Wausau for several unique projects. Photovoltaic panels generate renewable electrical energy directly from sunlight, and can be readily integrated into building facades and skylights. Wausau was a pioneer in development of building-integrated photovoltaic (BIPV) systems in the US. Wausau SuperWall has been UL-listed as a BIPV system for several projects, and Wausau holds US Patent # 6,646,196 B2 "Window Structure with Photovoltaic Panel".
Materials and Resources (MR)	13	1.1 Building Re-Use - 75% and 1.2 95% 4.1 Recycled Content 10% and 4.2 20% Also See Note 2	✓ ✓ Wausau provides a complete line of replacement windows and panning for historic renovation, energy upgrade, or building re-use. Wausau aluminum framing is extruded exclusively from secondary billet, with high recycled content. Glass, steel and hardware components also contain high percentages of recycled content.



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Indoor Environmental Quality (IEQ)	19	2 Increased Ventilation	✓	Operable windows can be part of an effective natural ventilation strategy, when applied using the recommendations in the Carbon Trust “Good Practice Guide 237”[1998] and ASHRAE 62.1-2004. Wausau structurally-glazed operable window products such as Visuline, Zero-Sightline, Epic and Heritage Series can provide “no-sag” performance even for over-sized ventilators.
		4.1 Low-Emitting Materials – Adhesives and Sealants	✓	All primers, structural glazing adhesives, and metal-to-metal sealants recommended by Wausau for use on-site, meet applicable SCAQMD Rule #1168 VOC limits.
		6.2 Controllability of Systems – Thermal Comfort	✓	Occupant-controlled operable windows may be used in lieu of comfort controls for areas nearby, as outlined in ASHRAE 62.1-2004. Wausau structurally-glazed operable window products such as Visuline, Zero-Sightline, Epic and Heritage Series can provide “no-sag” performance even for over-sized ventilators
		7.1 Thermal Comfort-Design	✓	Wausau window and curtainwall systems utilizing polyurethane or polyamide nylon thermal barriers and warm-edge insulating glass increase “Mean Radiant Temperature” perceived by building occupants, compared to lower-performing systems. The low air infiltration of AAMA AW-Class windows, helps keep drafts to a minimum.
		8.1 Daylight 75% of Occupied Spaces and 8.2 Views in 90% of Occupied Spaces Also See Note 1	✓	Wausau’s products have long been recognized as some of the industry’s best in energy performance. Combined with Viracon high-performance glass, the “right” windows for your building type and climate zone are always available from Wausau. The Wausau “ Performance Upgrade Tables ” give both “typical” energy performance values, as well as <u>leading-edge</u> standard product options for Visible Light Transmittance (VLT). Most Wausau products are available with between-glass Venetian blinds.



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Innovation and Design Process (ID)	6	1.1 thru 1.4 Innovation in Design	✓
Regional Priority (RP)	4	1 As determined by USGBC regional councils and chapters	✓
Project Totals	110 Points	46 Total Credits <small>Applicable to all Rating Systems</small>	Up to 15 Impacted
In addition to these Credits, windows and curtainwall also impact the prerequisite Minimum Energy Performance.			

Levels of LEED® Certification

- Certified: 40 to 49 points**
- Silver: 50 to 59 points**
- Gold: 60 to 79 points**
- Platinum: 80 points and above**

NOTES:

- EQ Credit 4.2 “Low-Emitting Materials – Paints and Coatings” specifically exempts factory baked-on finishes such as fluropolymer, acrylic enamel and urethane paints. Residual VOC solvent content of these products is typically less than 0.3% after curing, hence they have no effect on indoor air quality.
- MR Credits 5.1 and 5.2 “Regional Materials – 10% or 20% Extracted, Processed and Manufactured Regionally” has been revised in LEED® Version 2.2., to eliminate credit for any material that is not extracted or recovered within 500 miles of the site. Since the bauxite mined to make aluminum is 100% imported, no primary aluminum framing material qualifies. Recycled aluminum used by Wausau’s Midwestern extruder-partners is cast into secondary extrusion billet in several locations. Most of these cast houses are within 500 miles of Wausau, Wisconsin, and if the job site is also within 500 miles, framing fabricated from recycled aluminum may help projects qualify for MR Credits 5.1 and 5.2 “Regional Materials.” There are certain unusual situations where glass or other infills may help contribute. More information is available at www.viracon.com.