CavityComplete® CMU Wall System

Green Building Guide

LEED® v4 for Building Design and Construction (BD+C)
Credits Guide

The CavityComplete® Concrete Masonry Unit (CMU) Wall System brings system solutions to the next level. It's a simplified and streamlined solution from four of the most trusted names in the industry. This guide provides information on how the CavityComplete® Wall System for CMU with Masonry Veneer contributes to helping achieve LEED® v4 certification.

Finalized in 2013, the LEED® v4 Green Building Rating System is a set of performance standards for certifying the design and construction of commercial, institutional and high-rise multifamily residential buildings, both public and private. The intent is to promote durable, affordable and sustainable materials and processes during the design, construction and operation of the built environment.

This credits guide includes information for New Construction, Core & Shell, Schools, Retail, Data Centers, Warehouse and Distribution Centers, Hospitality and Healthcare.

Prerequisites and Credits in the LEED® v4 Building Design and Construction

The LEED® v4 Rating System addresses the following Categories:

- Integrative Project Planning and Design or Integrative Process
- Location and Transportation (LT)
- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy and Atmosphere (EA)
- Materials & Resources (MR)
- Indoor Environmental Quality (EQ)
- Innovation (IN)
- Regional Priority (RP)

Prerequisites and Credits for each of the categories covered in the LEED® Rating System for each building type are project rather than product focused. Therefore it is the cumulative effect of products integrated within building systems and assemblies and evaluated within the parameters of each of the topics that contribute to the "points" a project accrues during the certification process.

LEED® v4 for Building Design and Construction (BD+C) Credits Guide for CMU Walls

Product lists and credit contribution by construction type is featured below. The key details the qualifying construction type(s) for each credit.

KEY

ALL	Qualifies for ALL construction categories	E	Data Centers
A	New Construction & Major Renovations	F	Warehouse and Distribution Centers
B	Core and Shell Development	G	Hospitality
C	Schools	H	Healthcare
D	Retail		

	EA		MR			EQ			
	Minimum Energy Performance	Optimize Energy Performance	Building Product disclosure and Optimization - Environmental Product declarations	Building Product disclosure and Optimization - Sourcing of Raw Materials	Building Product Disclosure and Optimization - Material Ingredients	Minimum Acoustical Performance	Low-Emitting Materials	Thermal Comfort	Acoustic Performance
Prerequisite	EAp2					EQp3			
Credit Number		EAc2	MRc2	MRc3	MRc4		EQc2	EQc5	EQc9
Insulation Products									
Owens Corning® FOAMULAR® XPS 250 Commercial Insulation	ALL	ALL	ALL	ALL		C	ALL	ALL	ACEFGH
Owens Corning® Thermafiber® Insulation, FireSPan® and Safing™ Mineral Wool Insulation (steel stud only)	ALL	ALL	ALL	ALL	ALL	C		ALL	ACEFGH
Fasteners									
Heckmann Standard joint reinforcing masonry anchors with hook & eye pintle	ALL	ALL		ALL		C		ALL	ACEFGH
Air/Water Barrier, Drainage Plane									
Mortar Net Solutions® MortarNet® with insect barrier mortar dropping collection device	ALL	ALL		ALL		C		ALL	ACEFGH
Mortar Net Solutions® TotalFlash® unitized flashing system	ALL	ALL				C		ALL	ACEFGH
Mortar Net Solutions® CompleteFlash® for corners and end dams	ALL	ALL				C		ALL	ACEFGH
Mortar Net Solutions® BTL-1 Sealant, flashing sealant	ALL	ALL				C		ALL	ACEFGH
Mortar Net Solutions® WeepVent, masonry weep opening	ALL	ALL		ALL		C		ALL	ACEFGH
PROSOCO R-Guard® Cat 5® Air/Water Barrier	ALL	ALL			ALL	C	ALL	ALL	ACEFGH
PROSOCO R-Guard® FastFlash® Liquid flashing membrane	ALL	ALL			ALL	C	ALL	ALL	ACEFGH
PROSOCO R-Guard® AirDam® Air and weather barrier sealant for windows and doors	ALL	ALL			ALL	C	ALL	ALL	ACEFGH

The products listed contribute to meeting requirements of the LEED® Rating system in the categories identified, however, the use of these products does not guarantee attainment of points or prerequisite compliance, nor are any products certified under the LEED® brand. Call 1-800-GET-PINK® to learn more about achieving LEED® certification.

EA Energy and Atmosphere Credits

EAp2 and EAc2 Minimum and Optimized Energy Performance

The CavityComplete® CMU Wall System, which includes all of the components and details, provides a fully tested wall insulation and air barrier system that demonstrates compliance with national energy codes for all climates and provides multiple insulation levels for cavity and continuous insulation design options to meet higher performance energy efficiency targets and can contribute to meeting energy performance criteria in this category.

MR Materials and Resources Credits

MRc2, MRc3 and MRc4 Product disclosure and optimization

Individual components of the CavityComplete® CMU Wall System can contribute to meeting MR credits where noted on the above matrix.

- Owens Corning® insulation products listed in the above matrix have Environmental Product Declarations (EPDs).

The Owens Corning® insulation products listed below have Material Health Certificates:

- Owens Corning® Thermafiber® Insulation, FireSpan® and Safing™ Mineral Wool Insulation

The PROSOCO products listed below are covered under both HPD and Declare:

- PROSOCO R-Guard® FastFlash® Liquid flashing membrane
- PROSOCO R-Guard® Cat 5® Air/Water Barrier
- PROSOCO R-Guard® AirDam® Air and weather barrier sealant for windows and doors

As listed below, several components have recycled content levels:

- Owens Corning® Thermafiber® Mineral Wool Insulation contains a minimum 70% recycled content, certified by ICC Evaluation Service (all pre-consumer)
- Owens Corning® FOAMULAR® XPS 250 Commercial Insulation contains a minimum 20% recycled content, certified by Scientific Certification Systems (all pre-consumer)
- Heckmann standard joint reinforcing masonry anchors with hook and eye pintle contains 98% recycled content (85% post-consumer, 13% pre-consumer)
- Mortar Net Solutions® MortarNet® with insect barrier mortar dropping collection device -- MortarNet® 2.0" is 20% post consumer recycled content; MortarNet® 1.0" is 40% pre consumer recycled content.
- Mortar Net Solutions® WeepVent contains a minimum 50% recycled content (17% post consumer, 33% pre consumer)

The CavityComplete® Concrete Masonry Unit (CMU) Wall System excludes the masonry veneer and concrete masonry units. A detailed list of the components is available at www.CavityComplete.com.

EQp3 Acoustic Performance

EQp3 Minimum Acoustic performance for Schools EQc9 Design classrooms or workspaces with effective acoustic controls

The CavityComplete® CMU Wall System with its mass, insulation components and continuous air space is well suited to reduce sound transmission. These characteristics make the CavityComplete® CMU Wall System effective at resisting the passage of noise commonly in the range of speech, typically measured by the Sound Transmission Class (STC), and lower frequency outdoor noise sources typically measured by the Outdoor-Indoor Transmission Class (OITC). The CavityComplete® CMU Wall System is estimated to achieve STC and OITC ratings in the range of >60.

EQ Low Emitting Materials EQc2

The following components carry the GreenGuard GOLD Certification for low emitting materials:

- Owens Corning® FOAMULAR® XPS 250 Commercial Insulation

The following components carry the SCS Indoor Advantage GOLD certification for low emitting materials:

- PROSOCO R-Guard® FastFlash® Liquid flashing membrane
- PROSOCO R-Guard® Cat 5® Air/Water Barrier
- PROSOCO R-Guard® AirDam® Air and weather barrier sealant for windows and doors

EQ Thermal comfort design

Design heating, ventilating, and air-conditioning (HVAC) systems and the building envelope to meet the requirements of ASHRAE Standard 55–2010, Thermal Comfort Conditions for Human Occupancy, with errata or a local equivalent.

The CavityComplete® CMU Wall System, which includes all of the components and details, provides a fully tested wall insulation and air barrier system that demonstrates compliance with national energy codes for all climates, and provides multiple insulation levels for cavity and continuous insulation design options to meet higher performance energy efficiency targets. It can contribute to meeting the building envelope design criteria necessary to meet ASHRAE Standard 55-2010, Thermal Comfort Conditions for Human Occupancy.

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