

NOTE: This document applies to Halo rigid insulation board products manufactured using BASF Neopor Plus graphite polystyrene (GPS).

The LEED v4 for Building Design and Construction (LEED BD+C) was finalized in 2013. Rather than product focused, LEED v4 places more emphasis on building system performance in an effort to produce buildings with a lower environmental impact, compared to previous LEED versions, by promoting more sustainable materials and environmentally friendly design, construction and manufacturing methods.

Rather than adopting a stand-alone rating system, as was done in previous versions, the Canada Green Building Council (CaGBC) will be adopting LEED v4. However, because LEED v4 was developed in the United States, which mainly references US standards, the CaGBC will be providing Canadian options to show compliance – termed Alternative Compliance Path (ACP). For example, where an equivalent Canadian standard exists, the ACP can allow the use of that standard, in lieu of the standard required in the LEED requirements.

While some of the building types may seem familiar from previous LEED versions, LEED v4 BD+C now include 8 building types:

1. New Construction
2. Core and Shell
3. Schools
4. Retail
5. Data Centers
6. Warehouses and Distribution Centers
7. Hospitality
8. Healthcare

A minimum of 40 points are required to achieve LEED v4 certification. The point system for LEED v4 certification is listed below:

- Certified LEED – 40 to 49
- Silver – 50 to 59
- Gold – 60 to 79

LEED v4 BD+C include 8 categories. Each category may vary in points based on the building types. The categories total 109 possible LEED points plus an additional point under "Integrative Process". The categories include

1. Location and Transportation (16 points)
2. Sustainable Sites (10 points)
3. Water Efficiency (11 points)
4. Energy and Atmosphere (33 points)
5. Material and Resources (13 points)
6. Indoor Environmental Quality (16 points)
7. Innovation (6 points)
8. Regional Priority (4 points)

The categories where Halo can potentially contribute to gaining LEED points are items 1, 2, 4, 5, and 6, as listed above. The potential LEED point contribution when using Halo is listed below, with details shown on the next page.

Building Type	Potential LEED Potential Contribution <sup>1</sup>
New Construction & Major Renovations	34
Core & Shell	32
Schools	32
Retail	34
Data Centers	34
Warehouses & Distribution Centers	34
Hospitality	34
Healthcare	35

POTENTIAL LEED POINTS CONTRIBUTION WITH HALO<sup>1</sup>

Sustainable Sites	Applicable Building Types	Maximum Points Contribution	Comments
Heat island reduction	All	2 (1 for healthcare)	The insulation and reflective properties of Interra can help to reduce heat island effects when used on roofs.

Energy & Atmosphere	Applicable Building Types	Maximum Points Contribution	Comments
Minimum Energy Performance	All	n/a (required)	The continuous insulation and air barrier properties of Halo can help meet required minimum levels of efficiency for the building.
Optimize Energy Performance	All	18 points except Schools and Healthcare (16 for Schools, 20 for Healthcare)	The continuous insulation and air barrier properties of Halo can help achieve the levels of energy performance that go beyond the prerequisite standard.

Material & Resources	Applicable Building Types	Maximum Points Contribution	Comments
Construction and Demolition Waste Management Planning	All	n/a (required)	Halo products produce little waste compared to wood, which should ease the waste management planning. In addition, EPS recycling programs can be implemented as part of the waste management planning.
Building Life-cycle Impact Reduction	All	3	Halo can help contribute to 3 points under "Option 4. Whole-Building-Life-Cycle Assessment."
Building Product Disclosure & Optimization - Environmental Product Declarations.	All	1	Can help contribute 1 point under "Option 1. Environmental Product Declaration (EPD)." Logix uses EPS which carries EPD documents, which conform to ISO 14025.
Building Product Disclosure & Optimization - Sourcing of Raw Materials.	All	2	Halo products are made with up to 10% recycled pre-consumer EPS.
Building Product Disclosure & Optimization - Material Ingredients.	All	1	Contributes to 1 point under "Option 3. Product Manufacturer Supply Chain Optimization." Halo products are certified under a third party program with Quality Auditing Institute (QAI).
Construction & Demolition Waste Management	All	2	Programs can be put in place to recycle EPS from job sites. EPS is also light in weight, and produces less waste than wood products.

TECHNICAL BULLETIN NO. 1 - MAY 2014

Indoor Environmental Quality	Applicable Building Types	Maximum Points Contribution	Comments
Minimum Acoustic Performance	Schools	N/a (required)	Halo can help increase the acoustical performance of wall and ceiling assemblies.
Low-emitting Materials	All	3	Halo is made with BASF Neopor Plus which is Greenguard Certified. In addition, the EPS used for Halo has been tested to show no signs of harmful emissions.
Thermal Comfort	All except Core & Shell	1	Halo offers continuous insulation in wall and ceiling assemblies, and is made with BASF Neopor Plus which offer the highest thermal value of any EPS material.
Acoustic Performance	All except Core & Shell	1	Halo can contribute to the STC ratings of wall and ceiling assemblies.

<sup>1</sup>The total LEED point contribution from Halo is a best estimate based on available information and test data. The actual LEED point contribution may change based on project specifics, and should be determined by a LEED Accredited Professional for each project seeking LEED accreditation.

For more information about the LEED green building rating system visit [www.usgbc.org](http://www.usgbc.org) or [www.cagbc.org](http://www.cagbc.org).