

The global leader in
door opening solutions

Pemko LEED® 2009 Certification Contribution

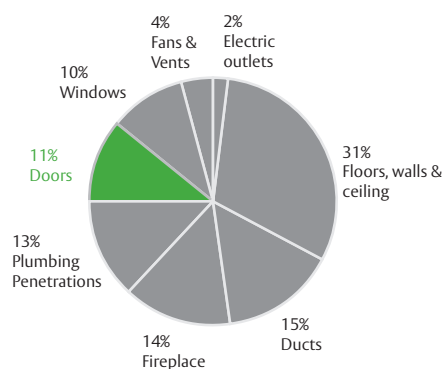
"LEED, or Leadership in Energy & Environmental Design, is a globally recognized symbol of excellence in green building. LEED certification ensures electricity cost savings, lower carbon emissions and healthier environments for the places we live, work, learn, play and worship. LEED's global sustainability agenda is designed to achieve high performance in key areas of human and environmental health, acting on the triple bottom line - putting people, planet and profit first."

Pemko Manufacturing Company is a leading supplier of weatherstripping, gasketing, and hardware solutions. Pemko products help to control the air infiltration around door openings for new and retrofit applications. ASSA ABLOY can help to achieve prerequisites and accumulate points in the following categories and credit areas of LEED. For further information, please call 800-824-3018 or refer to our website www.pemko.com.

Applications:

- Commercial Buildings
- Retail
- Schools
- Hospitals

Primary Air Infiltration Location



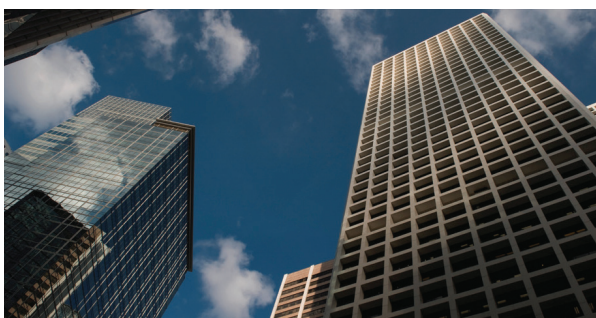
Richard S. Duncan, PhD, PE, *The Role of Air Sealing*



ASSA ABLOY is a member of the USGBC and CaGBC

U.S. Green Building Council logo is a trademark owned by the U.S. Green Building Council and is used with permission.

© 2017
Pemko Manufacturing Co.



ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Energy & Atmosphere (EA)

EA Prerequisite 2

Minimum Energy
Performance
NC CS S



Air Infiltration Tested

Establish the minimum level of energy efficiency for the proposed building and systems to reduce environmental and economic impacts associated with excessive energy use. **Pemko weatherstripping, gasketing and hardware solutions can offer customers exterior door openings that save 10% or more in improved energy efficiency.**

Products indicated by this symbol have been air infiltration tested in accordance with the requirements of ASTM E-283 Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.

EA Credit 1

Optimize Energy
Performance
NC CS S



Air Infiltration Tested

Achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use. **Pemko weatherstripping, gasketing and hardware solutions can offer customers exterior door openings that save 10% or more in improved energy efficiency.**

Products indicated by this symbol have been air infiltration tested in accordance with the requirements of ASTM E-283 Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.

Materials & Resources (MR)

MR Credit 4

Recycled Content
NC CS S CI

Increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials. Use materials with recycled content such that the sum of post-consumer recycled content plus 1/2 of the pre-consumer content constitutes at least 10% or 20%, based on cost, of the total value of the materials in the project. The recycled content value of a material assembly is determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value. **Almost all of Pemko products contain recycled content, allowing most of our products to contribute toward this credit.**

Pemko Product	Post-Consumer Recycled Content	Pre-Consumer Recycled Content***	Total LEED Recycled Content Percentage
Aluminum Thresholds	18%	49%	42.5%
Aluminum Ramps	18%	49%	42.5%
Bronze Thresholds	100%	0%	100%
Stainless Steel Continuous Hinges	55%	12%	61%
Aluminum Continuous Hinges	18%	49%	42.5%
Aluminum Sliding Track	18%	49%	42.5%
Aluminum Door Bottoms	18%	49%	42.5%
Aluminum Screw Applied Gasketing	18%	49%	42.5%
Recycled Rubber Ramp	100%	0%	100%
Silicon Gaskets	0%	10%	5%
Aluminum Astragals	18%	49%	42.5%
Steel Astragals	28%	5%	30.5%
Stainless Steel Astragals	18%	5%	20.5%
Stainless Steel Screw Applied Gasketing	18%	5%	20.5%
Lites and Louvers	55%	9%	59.5%

*Recycled content defined in accordance with industry standards

**Pre-consumer recycled content refers to waste material that is diverted from the waste stream and immediately placed back into the production cycle.

MR Credit 5

Regional Material
CS HC NC R S (CI allows One point if 20% material by cost is manufactured within 500 miles, second point if 10% is manufactured AND extracted, harvested or recovered)

Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation. Use building materials or products that have been extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value. **Pemko products can assist LEED projects within 500 miles of the following locations in achieving this credit:**

Manufacturing Locations:

Ventura, CA, USA; 800.283.9988

Memphis, TN, USA; 800.824.3018

Vancouver, BC, Canada; 877.535.7888

Toronto, ON, Canada; 866.243.9816

Indoor Environmental Quality (IEQ)

IEQ Prerequisite 2

Environmental Tobacco Smoke (ETS) Control
NC CS S EBOM CI

Prevent or minimize exposure of building occupants, indoor surfaces and ventilation air distribution systems to environmental tobacco smoke (ETS). Weather-strip all doors in the residential units leading to common hallways to minimize air leakage into the hallway. **Pemko weatherstripping solutions can assist LEED projects in achieving this credit.**

IEQ Credit 5

Indoor Chemical & Pollutant Source Control
NC CS S CI

Minimize building occupant exposure to potentially hazardous particulates and chemical pollutants. Sufficiently exhaust each space where hazardous gases or chemicals may be present or used (e.g., garages, housekeeping and laundry areas, copying and printing rooms) to create negative pressure with respect to adjacent spaces when the doors to the room are closed. For each of these spaces, provide self-closing doors and deck-to-deck partitions or a hard-lid ceiling. **Pemko gasketing and weatherstripping should be specified on all openings where hazardous particulates and chemical pollutants may be present to exceed the requirements of LEED IEQp2 and provide additional protection to building occupants. Pemko recommends weatherstripping and gasketing products with this symbol to meet the intent of LEED IEQp2.**

IEQ Credit 8.1 & 8.2

Daylight & Views
NC CS S CI (IEQc.2.4 in EBOM)

To provide building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building. **Adding Pemko lite kits and architectural glazing to door openings will assist projects in achieving this LEED credit.**

LEED For Schools Specific Credits

IEQ Credit 9

Enhanced Acoustical Performance
S (LEED NC can earn Innovation credits for Enhanced Acoustical Performance)

To provide classrooms that facilitates better teacher-to-student and student-to-student communications through effective acoustical design. Design the building shell, classroom partitions and other core learning space partitions to meet the Sound Transmission Class (STC) requirements of ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools, except windows, which must meet an STC rating of at least 35. **Pemko STC rated gasketing solutions can help our door assemblies meet ANSI Standard S12.20-2002 and can help projects gain LEED credit for Enhanced Acoustical Performance.**

Products indicated by this symbol have been acoustically tested in accordance with ASTM E 90-04 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions, and ASTM E 1408-91 Standard Test Method for Laboratory Measurement of Sound Transmission Loss of Door Panels and Door Systems. Contact PEMKO for recommended SoundSeal Systems.



Sound Tested - ASTM E90

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience



LEED for Schools Specific Credits (continued)

IEQ Credit 10 Mold Prevention S

To reduce the potential presence of mold in schools through preventive design and construction measures. **We offer a number of weatherstripping and gasketing products in silicon material that meet the JIS Z 2801:2000 standard. Pemko products designated as MicroShield® or SiliconSeal can help projects gain LEED credit for Mold Prevention.**



MicroShield®

As part of their promise to provide innovative solutions to their customers, certain ASSA ABLOY Group brands offer the MicroShield® technology, a silver-based antimicrobial additive designed to inhibit the growth of bacteria.

MicroShield® is a registered trademark of Yale Security Inc., an ASSA ABLOY Group company.

LEED EBOM Specific Credits

MR Credit 3 Sustainable Purchasing - Facility Alterations & Additions EBOM

Reduce the environmental and air quality impacts of the materials acquired for use in the upgrade of buildings. Maintain a sustainable purchasing program covering materials for facility renovations, demolitions, refits and new construction additions. **Pemko products can help Sustainable purchasing programs meet many of the requirements to obtain this credit.**

MR Credit 9 Solid Waste Management - Facility Alterations & Additions EBOM

To divert construction and demolition debris from disposal to landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites. **Many of Pemko products can be recycled (in the case of our metal products, potentially infinitely) and reused. We strive to make durable sustainable products that can assist projects in attaining this credit.**

Our Product End-of-Life Recycling program provides recycling and/or disposal of Pemko products that have reached the end of their life cycle and are beyond the product's warranty period. Call 800.824.3018 for more information.

NC: New Construction CS: Core and Shell S: Schools CI: Commercial Interiors EBOM: Existing Building

ASSA ABLOY
5535 Distribution Drive
Memphis, TN 38141
websales@pemko.com • www.pemko.com

MEMPHIS, TN USA
P: 800 824-3018
F: 800 243-3656

VENTURA, CA USA
P: 800 283-9988
F: 800 283-4050

VANCOUVER, BC CA
P: 877 535-7888
F: 877 535-7444

TORONTO, ON CA
P: 877 535-7888
F: 877 535-7444