



United States

## **LEED® (Leadership in Energy and Environmental Design)**

*An internationally recognized certification system developed by the U.S. Green Building Council (USGBC), LEED is a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.*

*Buildings and communities are evaluated throughout the building lifecycle on essential metrics: energy savings, resource management, water efficiency, CO2 emissions reduction, and improved indoor environmental quality. A single score is given on a scale of Certified, Silver, Gold and Platinum.*

### **VICTAULIC COMMITMENT TO SUSTAINABILITY**

- Environmental responsibility and roots in sustainability for 85 years.
- Victaulic products are made with natural and recycled resources using lean, responsible manufacturing processes that follow the life of a building.
- During installation, Victaulic products significantly reduce or eliminate waste, emissions and noise, while maximizing energy efficiency.
- Victaulic has been involved with the Alberici Headquarters, Overland, Missouri (LEED® 2.0 Platinum certification); Vancouver Olympics Village (LEED® Gold certification); Janssen Pharmaceutical (Johnson & Johnson), Titusville, New Jersey (LEED® Platinum certification); SAS Institute, Toronto, Canada; and BG Chemie in Germany.
- Victaulic assures the “green spirit” of a building by ensuring sustainable piping design and system performance.
- Easy access to systems installed with Victaulic products promote routine maintenance schedules and thus enable building systems to operate at peak efficiency for the life of a system.
- Victaulic may facilitate reaching LEED® points; solid environmental commitment and experience, with LEED-certified engineers on staff.

## **Construction Activity Pollution Prevention**

**Requirement – Reduce air pollution from construction activities, notably dust and Particulate Matter (PM).**

### **VICTAULIC SOLUTION:**

- Victaulic uses a no-flame-joining method that reduces emissions of Particulate Matter (PM). In 2007, Victaulic couplings used on world projects eliminated 145 metric tons of particulate matter, the equivalent of removing one million cars from the road for a week.



- Victaulic joined pipe can be pre-fabricated and configured to lay flat in a truck bed, unlike prefabricated welded spools that are non-adjustable in the field.
- Victaulic can fit more material per truckload, equating to reduced transportation costs and carbon emissions.
- Victaulic utilizes “Bag-and-Tag” process to manage waste and job site activity. Shipping to the contractor reduces waste by eliminating over-order and product stockpiles.

## **Minimum Energy & Optimize Energy Performance**

**Requirement – Maximize energy performance level to reduce environmental and economic impact. All energy costs affiliated with the building, including construction, must be included. Demonstrate percentage improvement compared with baseline building performance rating:**

- 10 percent improvement - prerequisite
- 12 percent improvement - one point
- 14 percent improvement - two points
- 48 percent improvement - 19 points

### **VICTAULIC SOLUTION:**

- Based on experience and involvement in LEED® projects, Victaulic can improve energy performance utilizing product efficiency, and installation management on systems installed with mechanical grooved products.
- Victaulic products and subsequent accessibility of piping systems encourages implementation of proper, comprehensive HVAC maintenance programs. This may result in the use of 15 percent to 20 percent less energy than systems allowed to deteriorate without regular maintenance and could reduce total system operating costs by as much as 50 percent.
- Installation of Victaulic products on prepared pipes does not require any incremental electrical energy, therefore optimizing energy performance.
- Victaulic products are easy to maintain due to a “union” at each joint, with no extra threaded or flanged unions required.
- The Victaulic versatile grooved piping system is effective on a variety of piping systems, including the promotion of lighter wall pipe on a variety of applications. Lighter wall pipe can provide five to 10 percent more cross-sectional flows than welded pipe. Pipe couplings and fittings are designed to minimize friction, improve throughput and thus reduce power requirements at the pump.

## **Construction Waste Management**

**Requirement – Divert construction and demolition debris from disposal in landfill and incineration facilities, redirect recyclable recovered resources back to manufacturing process, and reusable materials to appropriate sites.**



#### **VICTAULIC SOLUTION:**

- Victaulic conducts manufacturing with a recycling process that includes utilizing up to 90 percent recycled materials and 100 percent recycled sand used in the casting process.
- Victaulic can minimize job site waste through lean manufacturing (produce and ship only required materials), as well as coordinate deliveries according to the contractor strategy and schedule.

### **Recycled Content**

**Requirement – Increase demand for building product that incorporates recycled content materials, therefore reducing impact resulting from virgin material extraction and processing. The minimum percentage for recycled materials is 10 percent for one point, and 20 percent for two points.**

#### **VICTAULIC SOLUTION:**

- Victaulic uses 90 percent recycled steel and ductile iron for its coupling and fittings, meaning 1,039 tons of steel are recycled in the United States per week.
- Most of the Victaulic product involved in your project may help you reach this objective.

### **Construction Indoor Air Quality**

**Requirement – The purpose of the Construction Indoor Air Quality Management Plan is to reduce indoor air quality problems resulting from construction or renovation and promote the comfort and well being of construction workers and building occupants.**

#### **VICTAULIC SOLUTION:**

- Unlike welding that emits highly toxic pollutants, uses vast amounts of electrical energy and specialty gases, Victaulic flameless connections avoid impact on human safety and the environment.
- Victaulic no-flame joining method is ideal for routine maintenance systems and can help preserve indoor air quality during renovations.

### **Low-Emitting Materials - Paints and Coatings**

**Requirement – The purpose of the Construction Indoor Air Quality Management Plan is to reduce indoor air quality problems resulting from construction or renovation and promote the comfort and well being of construction workers and building occupants.**



#### **VICTAULIC SOLUTION:**

- More than 75 percent of Victaulic fittings and couplings are dip coated, a process that creates less wasted paint, does not pose hazardous air pollutant (HAP) risks nor contains as many volatile organic compounds (VOCs) as spray processes.
- LEED® requires a VOC level of 250g/L to earn the point. Victaulic dip coating paint is 143.78g/L. Solvent based spray paints are 707.6g/L.

### **Thermal Comfort Design**

**Requirement – The purpose of thermal comfort design is to provide a comfortable thermal environment that promotes occupant productivity and well being.**

#### **VICTAULIC SOLUTION:**

- Victaulic provides a balancing valve system that enhances overall project ventilation and air distribution flow.
- Balancing valves maintain a dynamic flow that enables the HVAC system to provide correct energy output at all times, thus promoting comfort for occupants.

### **Innovation in Design**

**Requirement – To provide design teams and projects the opportunity to achieve exceptional performance above the requirements set by the LEED® Green Building Rating System and/or innovative performance in Green Building categories not especially addressed by the LEED® Green Building Rating System.**

#### **VICTAULIC SOLUTION:**

- For more than 85 years, Victaulic has met customer demands for innovative, superior green products, such as the environmentally friendly Victaulic Vortex™ fire suppression system, the only fire suppression system certified FM 5580.
- Victaulic has launched several hundred products such as QuickVic® rigid couplings, which are assembled into pipe without disassembling bolts, nuts and housings. This installation-ready, patented design reduces handling and speeds installation, thus saving precious construction time.

### **LEED® Accredited Professional**

**Requirement – To support and encourage the design integration required by LEED® to streamline the application and certification process.**



- Victaulic is a member of Green Building Councils throughout the world, such as USGBC, CAGBC (Canada) and SpainGBC. Victaulic collaborates with these organizations to make green buildings and designs accessible and understandable.
- Numerous Victaulic sales engineers are LEED®-AP certified – the mark of the most qualified, educated, and influential green-building professionals in the market.

## Conclusion

Victaulic saves time and money and enhances sustainability, not only through the manufacture of its products themselves, but through the installation and maintenance benefits of its products. Victaulic may be involved in 10 to 33 LEED® points, depending on the selection of products and the specific application, including three prerequisites that are essential to becoming LEED®-certified. Consult your local Victaulic LEED®-certified specialist to determine the best results on your next sustainable project.