



Australia

## **GREEN STAR**

*Green Star was developed by the Green Building Council of Australia (GBCA). Australia's first comprehensive rating system for building environmental design and performance, Green Star examines a number of criteria including energy, indoor environmental quality, transport, water, emissions, materials and innovations.*

*Green Star utilizes six stars to measure performance. Projects that obtain a star rating of one, two or three, are not eligible for formal certification. Projects with a four star rating or higher are eligible to apply, and are designated according to:*

- *Four Star Green Star Certified Rating = "Best Practice"*
- *Five Star Green Star Certified Rating = "Australian Excellence"*
- *Six Star Green Star Certified Rating = "World Leadership"*

## **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 certified), SAS Institute, Toronto, Canada, and BG Chemie in Germany.
- Victaulic assures the "green spirit" of a building by enabling 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 Green Star points; solid environmental commitment and experience, with experienced certified engineers on staff.

## **Waste Management**

**Requirement – Encourage and recognize management practices that minimize construction waste. Up to two points awarded if the contractor implements a Waste Management Plan (WMP), retains waste records and reports quarterly to the building owner; and a percentage (by mass) of all demolition and construction waste is reused or recycled as follows:**



- one point for 60 percent
- two points for 80 percent

#### **VICTAULIC SOLUTION:**

- Victaulic conducts manufacturing with a recycling process that includes 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 schedule and strategy.
- Victaulic utilizes “Bag-and-Tag” process to manage waste and job site activity. Shipping to the contractor only required materials for each phase of a project reduces waste by eliminating over-order and onsite product stockpiles.

## **Internal Noise Levels**

**Requirement – Encourage and recognize buildings that are designed to maintain appropriate internal noise levels.**

#### **VICTAULIC SOLUTION:**

- Victaulic mechanical grooved pipe systems deliver unsurpassed vibration isolation and sound attenuation characteristics.
- Victaulic flexible couplings provide vibration attenuation in the following ways: pipe end separations, elastomer gaskets and ductile iron housings.
- Victaulic mechanical joining systems do not contribute to background noise, and provide for significantly higher productivity and reduced sound during retrofit and installation.

## **Volatile Organic Compounds**

**Requirement – Encourage and recognize specification of interior finishes that minimize the contribution and levels of volatile organic compounds in buildings.**

#### **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.
- 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.



- 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.

## **Greenhouse Gas Emissions**

**Requirement – Encourage and recognize designs that minimize greenhouse gas emissions associated with operational energy consumption. Up to 20 points are awarded where it is demonstrated that the building’s predicted greenhouse gas emissions have been reduced.**

### **VICTAULIC SOLUTION:**

- Victaulic uses a no-flame-joining method that reduces emissions of Particulate Matter (PM) and greenhouse gas during installation. This is opposed to welding, which increases greenhouse gas, including carbon dioxide, carbon monoxide and nitrogen oxide. Welding fumes may also contain dangerous concentrations of manganese, nickel, chromium, cobalt and lead.

## **Peak Energy Demand Reduction**

**Requirement – Encourage and recognize designs that reduce peak demand on energy supply infrastructure. Up to two points awarded where it is demonstrated that the building has reduced its peak electrical demand load as follows:**

- **one point where peak electrical demand is actively reduced by 15 percent OR the difference between the peak and average demand does not exceed 40 percent.**
- **two points where peak electrical demand is actively reduced by 30 percent OR the difference between the peak and average demand does not exceed 20 percent.**

### **VICTAULIC SOLUTION:**

- Based on experience and involvement in LEED® projects, Victaulic can improve energy performance utilizing products that promote efficiency and installation and maintenance management.
- Victaulic products promote the use of proper, comprehensive HVAC maintenance programs. Thus, efficient and maintained systems may use 15 to 20 percent less energy than systems allowed to deteriorate without regular maintenance, and could reduce total operating costs by as much as 50 percent.
- Installation of Victaulic product on prepared pipe 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 at promoting usage of various piping materials, including lighter wall pipe. 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.

## Steel

**Requirement – Encourage and recognize embodied energy reduction and resource depletion associated with reduced virgin steel use. Up to two points are awarded as follows:**

- One point for 60 percent of all steel, by mass, having a post-consumer recycled content greater than 50 percent, or is reused.
- Two points for 90 percent of all steel, by mass, having a post-consumer recycled content greater than 50 percent, or is reused.

### **VICTAULIC SOLUTION:**

- Victaulic uses 90 percent recycled steel and ductile iron for the manufacture of its coupling and fittings, meaning 1,039 tons of steel are recycled at its facility in the United States per week.

## Innovative Strategies & Technologies

**Requirement – Encourage and recognize pioneering initiatives in sustainable design, process or advocacy.**

### **VICTAULIC SOLUTION:**

- 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.

## Conclusion

Victaulic saves time and money and enhances sustainability, not only by the installation of its products themselves, but through the promotion of sustainable installation and maintenance processes. Victaulic products could be involved in up to 36 Green Star points. Consult your local Victaulic representative for the right solution on your next sustainable building project.