



VICOSTONE® QUARTZ SURFACES & LEED CERTIFICATION





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I. BACKGROUND

ABOUT VICOSTONE JOINT STOCK COMPANY

>10

YEAR
EXPERIENCE

Over ten (10) years of developing, manufacturing and marketing high - quality quartz surfaces.

>05

PRODUCTION
LINES

Production Capacity: 05 production lines from 2016. All products are produced with Bretonstone® Patented machinery and technology.

>100

DISTRIBUTORS
AROUND THE WORLD

Global operation with distribution network of more than 100 affiliated distributors and fabricators around the world. Our main markets: European, American and Australian market

More information: www.vicostone.com

ABOUT VICOSTONE® QUARTZ SURFACES AND ITS APPLICATIONS

Vicostone® Quartz Surface is produced from up to 93% pure natural quartz aggregates which are adhered with a polymer resin with color powder.

Manufactured using the most advanced and latest technology from Breton stone machinery of Italy, Vicostone® Quartz Surface is not only a high-performing surface, but is also a luxurious, durable, low maintenance surface product which offers a number of advantages that other countertop materials can't match.



Non-porous



Stain-resistant



Anti-bacterial



Scratch-resistant



Durable



Heat-resistant

With special beauty and athletic performance, Vicostone® Quartz Surface is widely used in interior applications such as kitchen countertops, bathroom vanities, wall paneling, and flooring, just to name a few.

Vicostone always keeps innovating and creating new and unique designs to bring many unique looks for your home.

More information: www.vicostone.com



Vicostone® BQ 9470 - A product with recycled content

ABOUT U.S. GREEN BUILDING COUNCIL (USGBC)

The U.S. Green Building Council (USGBC) is a non-profit organization that promotes sustainability in how buildings are designed, built, and operated. USGBC is best known for its development of the Leadership in Energy and Environmental Design (LEED) green building rating systems and its annual Greenbuild International Conference and Expo, the world's largest conference and expo dedicated to green building. USGBC was one of eight national councils that helped found the World Green Building Council (WorldGBC).



More information: www.usgbc.org

ABOUT LEED GREEN BUILDING RATING SYSTEM

The LEED Green Building Rating System (LEED) is a program that provides third-party verification of green buildings. The LEED rating systems address both a wide variety of buildings types, including commercial buildings, homes, neighborhoods, retail, healthcare, and schools, and emphasize state-of-the-art strategies in five areas: sustainable site development, water savings, energy efficiency, materials and resources selection, and indoor environmental quality.

LEED is flexible enough to apply to all project types. There are five rating systems that address multiple project types:



Projects may earn one of four levels of LEED certification (Certified, Silver, Gold or Platinum) by achieving a given number of point-based credits within the rating system.



More information: www.usgbc.org

II. VICOSTONE® QUARTZ SURFACES & LEED POINTS

The green building field is growing and changing daily. New technologies and sustainable products are being introduced into the marketplace to support this trend. Building owners and communities are focusing on making a profit while having a negligible (or even a beneficial) impact on the environment. They make sustainability a key consideration in decision-making about choosing suppliers for their projects. They believe that it is their responsibility to build facilities which have a minimum impact on our earth's resources.

As a manufacturer, Vicostone is taking innovative steps to create eco-friendly products. Microbial Resistance Certification, NSF Certification, GREENGUARD Indoor Air Quality Certification and Greenguard Children and School Certification gives assurance that Vicostone® Quartz Surfaces are **SAFER & GREENER** to use in all design projects. Thus, building teams can maximum points toward LEED Certification from U.S. GREEN BUILDING COUNCIL (USGBC) for a building project with the use of Vicostone® Quartz Surfaces.

| LEED RATING SYSTEM CERTIFICATION LEVELS | |
|---|---|
| LEED for New Construction | Certified: 26-32 points Silver: 33-38 points Gold: 39 – 51 points Platinum: 52-69 points |
| LEED for Commercial Interiors | Certified: 21-26 points Silver: 27-31 points Gold: 32-41 points Platinum: 42-57 points |
| LEED for Existing Buildings | Certified: 32-39 points Silver: 40-47 points Gold: 48-63 points Platinum: 64-85 points |

USE OF VICOSTONE® QUARTZ SURFACES WILL CONTRIBUTE DIRECTLY OR INDIRECTLY TO OBTAINING UP TO 12 LEED POINTS TOWARD CERTIFICATION.

DIRECT CONTRIBUTIONS

1. MR CREDIT 2: CONSTRUCTION WASTE MANAGEMENT

Intent

To divert construction and demolition debris from disposal in landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites.

Requirements

Recycle and/or salvage nonhazardous construction and demolition debris. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or comingled. Excavated soil and land-clearing debris do not contribute to this credit.

Calculations can be done by weight or volume, but must be consistent throughout. The minimum percentage debris to be recycled or salvaged for each point threshold is as follows:

| Recycled or Salvaged | Points |
|-----------------------------|---------------|
| 50% | 1 |
| 75% | 2 |

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 2 POINTS

Support: *Vicostone's scraps from fabrication and installation can be processed into recycled content commodities, such as mosaic products and decorations. They can also be crushed into stone powder to obtain concrete or roadfill.*



*Vicostone® Mosaics produced from stone scraps
from fabrication and installation process.*

DIRECT CONTRIBUTIONS

2. MR CREDIT 3: MATERIALS REUSE

Intent

To reuse building materials and products to reduce demand for virgin materials and reduce waste, thereby lessening impacts associated with the extraction and processing of virgin resources.

Requirements

Use salvaged, refurbished or reused materials, the sum of which constitutes at least 5% or 10%, based on cost, of the total value of materials on the project. The minimum percentage materials reused for each point threshold is as follows:

| Reused Materials | Points |
|------------------|--------|
| 5% | 1 |
| 10% | 2 |

Mechanical, electrical and plumbing components and specialty items such as elevators and equipment cannot be included in this calculation. Include only materials permanently installed in the project. Furniture may be included if it is included consistently in MR Credit 3: Materials Reuse through MR Credit 7: Certified Wood.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 2 POINTS

Support: *At the end of its lifecycle, Vicostone® Quartz still keeps its original physical performance. Thus, it can be reused for other purposes, such as flooring, vanity tops, backsplashes and decorations.*



Quartz Stone Shelf



Led Stone Light

DIRECT CONTRIBUTIONS

3. MR CREDIT 4: RECYCLED CONTENT

Intent

To increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Requirements

Use materials with recycled content¹ 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 minimum percentage materials recycled for each point threshold is as follows:

| Recycled Content | Points |
|-------------------------|---------------|
| 10% | 1 |
| 20% | 2 |

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.

Mechanical, electrical and plumbing components and specialty items such as elevators cannot be included in this calculation. Include only materials permanently installed in the project. Furniture may be included if it is included consistently in MR Credit 3: Materials Reuse through MR Credit 7: Certified Wood.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 2 POINTS

Support: Several colors of Vicostone® Quartz Surfaces have at least 20% recycled content. For example, Vicostone® Sparkling Collection contains at least 20% post- consumer recycled glass content.



Vicostone® Sparkling Collection

DIRECT CONTRIBUTIONS

4. MR CREDIT 5: REGIONAL MATERIALS

Intent

To 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.

Requirements

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. If only a fraction of a product or material is extracted, harvested, or recovered and manufactured locally, then only that percentage (by weight) can contribute to the regional value. The minimum percentage regional materials for each point threshold is as follows:

| Regional Materials | Points |
|---------------------------|---------------|
| 10% | 1 |
| 20% | 2 |

Mechanical, electrical and plumbing components and specialty items such as elevators and equipment must not be included in this calculation. Include only materials permanently installed in the project. Furniture may be included if it is included consistently in MR Credit 3: Materials Reuse through MR Credit 7: Certified Wood.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 2 POINTS

Support: Vicostone's manufacturing plants are located in Vietnam, outside the 500 miles radius from the projects. However, this Section defines "manufacturing" as the final "place of assembly" of components. Therefore, any fabrication shop located within 500 miles radius from the project is considered the final "place of assembly". Vicostone has a good network of regional fabricators to support this credit.



DIRECT CONTRIBUTIONS

5. ID CREDIT 1: INNOVATION IN DESIGN

Intent

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 specifically addressed by the LEED Green Building Rating System.

Requirements

Credit can be achieved through any combination of the Innovation in Design and Exemplary Performance paths as described below:

PATH 2. Exemplary Performance (3 points)

Achieve exemplary performance in an existing LEED 2009 for New Construction and Major Renovations prerequisite or credit that allows exemplary performance as specified in the LEED Reference Guide for Green Building Design & Construction, 2009 Edition. An exemplary performance point may be earned for achieving double the credit requirements and/or achieving the next incremental percentage threshold of an existing credit in LEED.

One point is awarded for each exemplary performance achieved. No more than 3 points under IDc1 may be earned through PATH 2— Exemplary Performance.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 1 POINT

Support: Several colors of Vicostone® Quartz Surfaces are manufactured with a minimum of 30% recycled content. Thus, one point will be reward for this credit.



Vicostone® Sparkling Black - BC1000

has 35% post - consumer/ industrial recycled glass and mirror content.

DIRECT CONTRIBUTIONS

6. IEQ CREDIT 5: INDOOR CHEMICAL AND POLLUTANT SOURCE CONTROL

Intent

To minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.

Requirements

- Design to minimize and control the entry of pollutants into buildings and later cross-contamination of regularly occupied areas through the following strategies:
- Employ permanent entryway systems at least 10 feet long in the primary direction of travel to capture dirt and particulates entering the building at regularly used exterior entrances. Acceptable entryway systems include permanently installed grates, grill s and slotted systems that allow for cleaning underneath. Roll-out mats are acceptable only when maintained on a weekly basis by a contracted service organization.
- Sufficiently exhaust each space where hazardous gases or chemicals may be present or used 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. The exhaust rate must be at least 0.50 cubic feet per minute (cfm) per square foot with no air recirculation. The pressure differential with the surrounding spaces must be at least 5 Pascals (Pa) (0.02 inches of water gauge) on average and 1 Pa (0.004 inches of water) at a minimum when the doors to the rooms are closed.
- In mechanically ventilated buildings, install new air filtration media in regularly occupied areas prior to occupancy; these filters must provide a minimum efficiency reporting value (MERV) of 13 or higher. Filtration should be applied to process both return and outside air that is delivered as supply air.
- Provide containment for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 1 POINT

Support: *Vicostone® Quartz Surfaces are designed to minimize the building occupant exposure to potentially hazardous particulates and chemical pollutants such as dangerous gases found in some natural stones. Vicostone® Quartz Surfaces are certified by Greenguard Indoor Air Quality Certification & Greenguard Children and School Certification to give assurance that the product is perfectly safe for indoor air quality, children and schools.*



INDIRECT CONTRIBUTION

7. IEQ CREDIT 4.1 LOW-EMITTING MATERIALS - ADHESIVES & SEALANTS

Intent

Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and wellbeing of installers and occupants.

Requirements

All adhesives and sealants used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site) must comply with the following requirements as applicable to the project scope:

- Adhesives, Sealants and Sealant Primers must comply with South Coast Air Quality Management District (SCAQMD) Rule #1168. Volatile organic compound (VOC) limits listed in the table below correspond to an effective date of July 1, 2005 and rule amendment date of January 7, 2005.
- Aerosol Adhesives must comply with Green Seal Standard for Commercial Adhesives GS-36 requirements in effect on October 19, 2000.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 1 POINT

Support: *Vicostone® Quartz Surfaces don't require sealing, either initially or periodically, thereby eliminating produce that normally contain and emit VOCs.*

All of the products recommended for installation of Vicostone® Quartz Surfaces have VOC content less than the LEED limits established under South Coast Air Quality Management District (SCAQMD) Rule #1168.



INDIRECT CONTRIBUTION

8. IEQ CREDIT 4.4 LOW-EMITTING MATERIALS – COMPOSITE WOOD AND AGRIFIBER PRODUCTS

Intent

To reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

Requirements

Composite wood and agrifiber products used on the interior of the building (i.e., inside the weatherproofing system) must contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies must not contain added urea-formaldehyde resins. Composite wood and agrifiber products are defined as particleboard, medium density fiberboard (MDF), plywood, wheat board, straw-board, panel substrates and door cores.

Materials considered fixtures; furniture and equipment (FF&E) are not considered base building elements and are not included.

TOTAL POINTS AVAILABLE WITH VICOSTONE® QUARTZ SURFACES: 1 POINT

Support: Due to high structural strength, Vicostone® Quartz Surfaces do not require any substrate of Plywood, MDF or composite wood that is necessary when installing weaker surfacing products such as granite, marble, limestone, soapstone, solid surfacing or recycled concrete. Composite wood usually contains urea formaldehyde resins that are potentially harmful to building occupants.



**USE OF VICOSTONE® QUARTZ SURFACES CAN CONTRIBUTE TO OBTAINING
UP TO 12 LEED CREDITS:**

- 1. MR CREDIT 2: CONSTRUCTION WASTE MANAGEMENT**
2 points
- 2. MR CREDIT 3: MATERIALS REUSE**
2 points
- 3. MR CREDIT 4: RECYCLED CONTENT**
2 points
- 4. MR CREDIT 5: REGIONAL MATERIALS**
2 points
- 5. ID CREDIT 1: INNOVATION IN DESIGN**
1 point
- 6. IEQ CREDIT 5: INDOOR CHEMICAL AND POLLUTANT SOURCE CONTROL**
1 point
- 7. IEQ CREDIT 4.1 LOW-EMITTING MATERIALS - ADHESIVES & SEALANTS**
1 point
- 8. IEQ CREDIT 4.4 LOW-EMITTING MATERIALS – COMPOSITE WOOD
AND AGRIFI BER PRODUCTS**
1 point

III. VICOSTONE ENVIRONMENTAL COMMITMENT

At Vicostone, we deeply understand the essentiality of a well-preserved environment to human's very own existence. That is why, we always give prominence to environmental protection. That is also why, we always focus our efforts on research and development to creating eco-friendly products.

VICOSTONE ENVIRONMENTAL COMMITMENT

We consider environmental protection as a top priority. To build a better and greener environment for today and for future generations lies at the core of our Company's business ethics.

In efforts to protect and conserve the environment, Vicostone has been developing its eco-product lines, optimally using recycled materials, developing stone production technology using environmentally-friendly bio-resin polymer.

We commit to minimizing environmental pollution by recycling waste from our production process and utilizing a closed water recycle system with the most advanced technology

OUR GREEN CONCEPT

...Green Input



...Green Processing



And Green Output



Eco – Friendly Products

With the breakthrough in technology, we succeed in transforming recycled materials into our products. It is our demonstration of social responsibility and strategic vision as one of the leading engineered stone manufacturers.

As a part of our GREEN strategy, the use of recycled materials may achieve following goals:

1. Prevent waste of potentially useful materials.
2. Reduce the consumption of virgin materials.
3. Conserve energy.
4. Reduce environmental pollution, especially air and water pollution.

Water Recycling

Water recycling is very important in our environmental protection policy. The goal of Vicostone is to reuse and recycle 100% wastewater generated from manufacturing and processing.



Waste Management

As a specific characteristic of the Stone Industry, waste from manufacturing process may affect the environment. Hence, waste management is very essential to ensure a healthy workplace.

For a well-preserved environment, Vicostone has tried our best to recycle and reuse as much waste as possible. Stone scraps from fabrication and installation can be processed into recycled content commodities, such as mosaic products and decorations. For eliminating water pollution, Vicostone has made use of stone powder generated from water filtering process to produce spume concrete for many construction projects.

ENVIRONMENTAL CERTIFICATION

With GREEN VISION, Vicostone is taking innovative steps to safeguard the natural environment and wishes to protect its future for generations to come. Hence, we strictly comply with the requirements of ISO 14001 about environmental policies and provide products that are completely safe for environment as certified by Greenguard.

GREENGUARD INDOOR AIR AND GREENGUARD CHILDREN AND SCHOOLS granted by the Greenguard environmental institute recognizes that all Vicostone® Quartz Surfaces are safe for indoor air quality, children and schools.



ISO 14001: Vicostone's manufacturing and business activities are checked and controlled strictly by Vicostone's environmental policies and comply with the requirements of ISO 14001.



With all effort for a well-preserved environment, Vicostone has become a member of Vietnam Green Building Council and U.S. Green Building Council.





**WITH GREEN MIND,
VICOSTONE ALWAYS
ACCOMPANY YOU
ON THE PATH TO SUCCESS.**