

# DuPont Surfaces

CONTRIBUTING TO SUSTAINABLE DESIGN AND LEED®



**Durable, easy to maintain, and low-VOC emitting, DuPont™ Corian® solid surfaces and DuPont™ Zodiaq® quartz surfaces can contribute to your sustainable design goals and help your projects achieve LEED® credits in a variety of commercial applications.**

Suitable for both horizontal and vertical applications, Corian® solid surfaces and Zodiaq® quartz surfaces combine beauty and performance with a range of benefits, including:

- **Durability**—Corian® and Zodiaq® both have long life cycles and require less replacement over time, offering exceptional cost-effectiveness with reduced waste. Corian® can also be easily renewed to its original appearance.
- **Low-VOC emissions**—Corian® and Zodiaq® meet or exceed emissions guidelines for volatile organic compounds (VOCs), hazardous air pollutants (HAPs) and are GREENGUARD Indoor Air Quality Certified®.
- **Nontoxic and nonallergenic to humans**—Corian® and Zodiaq® are third-party certified to be free of heavy metals and comply with the EU Directive 2002/95EC on the Restriction of Hazardous Substances (RoHS).
- **Recycled content**—The DuPont™ Corian® and Zodiaq® Terra Collections provide a diverse palette of colors that are certified by Scientific Certification Systems (SCS) for its recycled content. Corian® Terra Collection contains a minimum of 6% or 13% pre-consumer recycled content and Zodiaq® Terra Collection has minimum 50% pre-consumer recycled glass.



**corian.**  
SOLID SURFACES

**zodiaq.**  
QUARTZ SURFACES

## LOW-VOC SOLUTIONS

### In an effort to improve indoor air quality, a number of states have established guidelines and regulations related to the volatile organic compound (VOC) content and emissions of building materials.

Recommended strategies to reduce exposure to VOCs include evaluation and selection of low-emitting building materials, including consideration of emissions during and after installation. DuPont™ Corian® solid surfaces, DuPont™ Zodiaq® quartz surfaces, and DuPont™ surface sealants and adhesives all have low-VOC content, are low-emitting and have been proven to be nontoxic and nonallergenic to humans.

Corian® solid surfaces, Zodiaq® quartz surfaces and cured DuPont™ surface sealants and adhesives have been evaluated by the GREENGUARD Environmental Institute and have surpassed the indoor air quality (IAQ) requirements of these guidelines.

The low-VOC content and emissions of Corian® solid surfaces, Zodiaq® quartz surfaces and cured DuPont™ surface sealants and adhesives were determined by ASTM D-5116 test method (Small Scale Environmental Chamber Determination of Organic Emissions from Indoor Materials and Products). These low-level VOC emissions have been carefully reviewed, and no substance contained in these emissions has been cited by any of the following:

|                    |   |
|--------------------|---|
| <b>NTP</b>         | National Toxicology Program   |
| <b>OSHA</b>        | Occupational Safety & Health Administration   |
| <b>NIOSH</b>       | National Institute for Occupational Safety and Health   |
| <b>CA Prop. 65</b> | California Safe Drinking Water and Toxic Enforcement Act of 1986, better known by its original name of Proposition 65 |
| <b>CA OEHHA</b>    | California Office of Environmental Health Hazard Assessment, Special Environmental Requirements (Section 01350)       |
| <b>NAAQS</b>       | U.S. Environmental Protection Agency (EPA) National Ambient Air Quality Standards                                     |

Additionally, the U.S. Green Building Council's LEED® Green Building Rating System™ cites South Coast Air Quality Management District (SCAQMD) Rule #1168 as a requirement for LEED® points. DuPont™ surface joint adhesive and DuPont™ surface silicone sealant fall well below the SCAQMD requirement and can be considered low-emitting materials.

|   | <b>GREENGUARD<br/>Indoor Air Quality Certified®</b> | <b>GREENGUARD<br/>for Children and Schools™</b> | <b>SCAQMD Rule #1168</b> |
|---|---|---|--------------------------|
| <b>DuPont™ surface joint adhesive</b>   | ✓   | ✓   | ✓                        |
| <b>DuPont™ surface silicone sealant</b> | ✓   | ✓   | ✓                        |
| <b>DuPont™ Corian® solid surfaces</b>   | ✓   | ✓   | N/A                      |
| <b>DuPont™ Zodiaq® quartz surfaces</b>  | ✓   | ✓   | N/A                      |



**Specifying DuPont™ Corian® and DuPont™ Zodiaq® for a variety of applications can help construction projects earn LEED® points in several categories.**

The U.S. Green Building Council (USGBC) developed the LEED® Green Building Rating System™ as a voluntary national standard for designing high-performance, sustainable buildings, including a family of rating systems to meet the unique design features of different building projects.

The majority of projects registered with the LEED® Green Building Rating System™ fall under the “New Construction and Renovation” track. The following are examples of LEED® credits\* to which DuPont™ Corian® and DuPont™ Zodiaq™ may contribute. Formal credit interpretation requests, feedback on LEED® credit submittals and project certification are provided by the USGBC.

\*LEED® for New Construction Version 2.2  
USGBC, November 2005

**Materials & Resources (MR) Category**

**MR credit 1.3: Building Reuse (1 Point)  
Maintain 50% of Interior Non-Structural Elements**

*Intent:* Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

*Requirement:* Use existing interior non-structural elements (interior walls, doors, floor coverings and ceiling systems) in at least 50% (by area) of the completed building (including additions).

**How DuPont™ Corian® and Zodiaq® can contribute**

Corian® and Zodiaq® are durable and long-lasting materials, so they may remain on walls and floors when the building finds a new use, reducing demolition waste and the need to raise new structures. If the requirements pertaining to existing building structure and shell are satisfied, then Corian® and Zodiaq® can contribute to this category.



**MR credit 3.1: Materials Reuse 5% (1 Point)**

**MR credit 3.2: Materials Reuse 10% (1 Point in addition to MR Credit 3.1)**

*Intent:* Reuse building materials and products in order to reduce demand for virgin materials and to reduce waste, thereby reducing impacts associated with the extraction and processing of virgin resources.

*Requirement:* Use salvaged, refurbished or reused materials such that the sum of these materials constitutes at least 5% (Credit 3.1), or 10% (Credit 3.2) based on cost, of the total value of materials on the project.

**How DuPont™ Corian® can contribute**

Corian® can be easily repaired and refinished back to its original condition, thus minimizing the need to replace or dispose of it. It can also be removed, re-cut and either reinstalled as new design, or seamlessly reworked into new products.

**LEED® rating systems award points for performance in green design categories.**

Surfacing materials typically contribute to credits in the following categories:

Materials & Resources (MR)  
Indoor Environmental Quality (EQ)



**MR Credit 4.1: Recycled Content 10% post-consumer + ½ pre-consumer (1 point)**

**MR Credit 4.2: Recycled Content 20% (1 point in addition to MR Credit 4.1)**

*Intent:* Increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

*Requirement:* Use materials with recycled content such that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 10% (based on cost) of the total value of the materials in the project. The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

**How DuPont™ Corian® and Zodiaq® can contribute**

The DuPont™ Corian® and Zodiaq® Terra Collections are third-party certified by Scientific Certification Systems (SCS) to contain pre-consumer recycled content. These surfaces contain material diverted from the waste stream in the manufacturing process, reducing the processing of virgin materials. The diverted waste has been verified by SCS to meet ISO 14021 criteria.

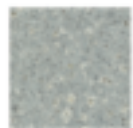
**DuPont™ Corian® Terra Collection**

The Corian® Terra Collection has been certified to contain a minimum of 6% or 13% pre-consumer recycled content and can help contribute to the overall recycled content of a project.



**DuPont™ Zodiaq® Terra Collection**

DuPont™ Zodiaq® Terra Collection offers a palette of four colors certified to contain a minimum of 50% pre-consumer recycled glass.



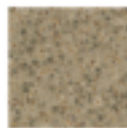
Calm Spring



Warm Taupe



Moroccan Morning



Mossy Green

**MR credit 5.1: Regional Materials 10% Extracted, Processed & Manufactured Regionally (1 Point)**

**MR credit 5.2: Regional Materials 20% Extracted, Processed & Manufactured Regionally (1 Point in addition to MR Credit 5.1)**

*Intent:* 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.

*Requirement:* 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% (Credit 5.1), or a minimum total of 20% (Credit 5.2), based on cost, of the total materials value.

\*As defined by the USGBC. Refers to the final assembly of components into the building product that is furnished and installed by tradesmen.

**DuPont™ Corian® and Zodiaq® as regional materials.**

Most Corian® is manufactured in Buffalo, NY (zip code: 14150); the majority of Zodiaq® is manufactured in Thetford Mines, Quebec (postal: G6G 7K7).

The distance from the primary manufacturing facility to the job site can be calculated to determine whether it is within the 500-mile radius necessary to contribute toward the Regional Materials credit.



Note: Map to be used as representation only.

A national network of at least 4,000 DuPont™ Certified Fabricators and Installers serve our customers.

In most cases, final assembly of components into the building product is at a regional or local level, further reducing the environmental impact associated with transportation.



**Indoor Environmental Quality (EQ) Category**

**EQ credit 4.1: Low Emitting Materials:  
Adhesives & Sealants (1 Point)**

|   | VOC content      | SCAQMD limit    |
|---|------------------|-----------------|
| <b>DuPont™ Surface Joint Adhesive</b>   | < 50 grams/liter | 250 grams/liter |
| <b>DuPont™ Surface Silicone Sealant</b> | < 50 grams/liter | 250 grams/liter |

*Intent:* Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installers and occupants.

*Requirement:* All adhesives and sealants used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with the requirements of the following reference standards:

*Adhesives, Sealants and Sealant Primers:  
South Coast Air Quality Management District (SCAQMD)  
Rule #1168.*

**How DuPont™ Corian® and Zodiaq® can contribute**

The joint adhesive and silicone sealant used in Corian® and Zodiaq® applications are GREENGUARD Indoor Air Quality Certified® and can be considered low-emitting materials. The low VOC emissions of DuPont™ surface joint adhesive and DuPont™ surface silicone sealant have been independently verified to meet the standards set by California’s SCAQMD.

**COMMITMENT TO SUSTAINABILITY**



DuPont is committed to strategies that drive sustainable growth and help our customers grow their businesses. One of the first companies to publicly establish environmental goals 16 years ago, DuPont has broadened its sustainability commitments beyond internal footprint reduction to include market-driven targets. In support of this vision, DuPont works in partnership with other industry leaders and is a member of many environmental organizations, including: the United States Climate Action Partnership (USCAP), Chicago Climate Exchange, the U.S. Green Building Council (USGBC) and the World Business Council for Sustainable Development (WBCSD).

To learn more about sustainable  
design from DuPont Surfaces, visit  
[www-surfaces.dupont.com](http://www-surfaces.dupont.com)  
[www-sustainability.dupont.com](http://www-sustainability.dupont.com)

MSDS Sheets, third-party certification documents  
and submittal support available upon request.



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