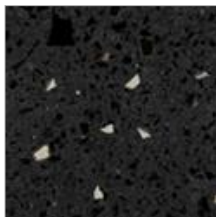


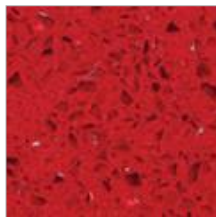
Radianz®, a division of worldwide technology leader LOTTE ADVANCED MATERIALS, offers a range of Radianz® quartz surface products 'Radianz® recycled series' that are SCS Material Content Certified.

Radianz® recycled series products are manufactured using Pre-consumer Recycled Content, resulting in a reduction of industrial waste and energy consumption utilized during the manufacturing process. Using recycled content helps conserve energy and resources, alleviates pressure on landfill space and reduces the need for transportation during certain phases of a product's life cycle. In addition to SCS Certification, the Radianz® recycled series features GREENGUARD and GREENGUARD Children & Schools certification and is listed as a low-emitting interior building product, further adding to its eligibility as a contributing product toward LEED points.

Radianz® Recycled Series



Kunlun Ink
Minimum 30%



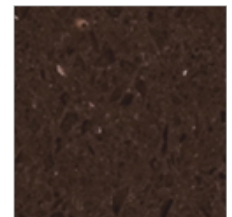
Salina Red
Minimum 30%



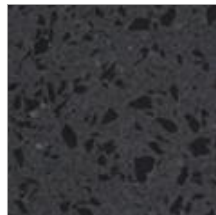
Luna Verde
Minimum 25%



Gentle Gray
Minimum 25%



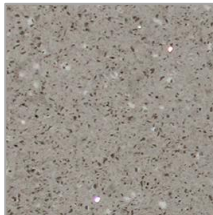
Sechura Mocha
Minimum 20%



Rangoon Black
Minimum 20%



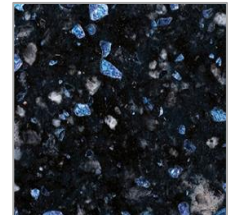
Mont Blanc Snow
Minimum 20%



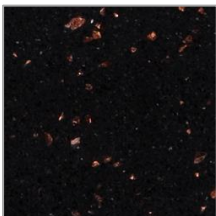
Elbrus Boulder
Minimum 20%



Imperial Gray
Minimum 13%



Midnight Sapphire
Minimum 10%



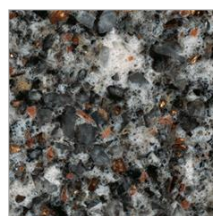
Ferio Black
Minimum 10%



Mirama Bronze
Minimum 4%



Saltoro Cliff
Minimum 4%



Gold Canyon Gray
Minimum 4%



Sierra Bedrock
Minimum 4%



Mariposa Buff
Minimum 4%

The following information will assist architects, specifiers, and designers who pursue the LEED Green Building Rating System for New Construction and Major Renovations using Radianz® quartz surface as components to interior architecture, casework and surfaces:

The LEED 2009 Green Building Rating System for New Construction and Major Renovations is a set of performance standards for certifying the design and construction of commercial or institutional buildings and high-rise residential buildings of all sizes, both public and private. The intent is to promote healthful, durable, affordable, and environmentally sound practices in building design and construction.

Materials & Resources (MR) Credit 4: Recycled Content (1–2 Points)

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 content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer 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.

Potential Technologies & Strategies

Establish a project goal for recycled content materials, and identify material suppliers that can achieve this goal. During construction, ensure that the specified recycled content materials are installed. Consider a range of environmental, economic and performance attributes when selecting products and materials.

Radianz® Recycled Series

Eleven (11)* colors of the Radianz® quartz surface are third-party certified by **SCS**. These products contain a percentage of pre-consumer recycled materials that are diverted from the waste stream during the manufacturing process; thereby, reducing the processing of virgin materials. The products can help to earn **LEED®** Credits in the category under **Materials & Resources (MR) Credit 4**.

* Seven (7) colors of Radianz® recycled series currently introduced in North America.

This Technical Bulletin is intended to provide guidelines for optimal fabrication, installation, and performance of LOTTE ADVANCED MATERIALS products mentioned. Though the information contained herein is deemed reliable, none of the contents—including but not limited to the instructions, techniques, graphics, and recommendations—is to be understood as implying legal liability of fitness for a specific purpose, any other type of warranty, or being complete or absolute in its range and nature of information.

Depending on the user's particular application, all necessary measures must be taken to verify and test the adequacy for such needs or application. Any information or recommendation herein is strictly for purposes of reference and as such, LOTTE ADVANCED MATERIALS assumes no responsibility for its suitability or accuracy or the use of such information for products other than LOTTE ADVANCED MATERIALS Staron® solid surfaces & Radianz® quartz surfaces.

ID Credit 1: Innovation in Design (1–5 Points)

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.

Potential Technologies & Strategies

Substantially exceed a LEED 2009 for New Construction and Major Renovations performance credit such as energy performance or water efficiency. Apply strategies or measures that demonstrate a comprehensive approach and quantifiable environment and/or health benefits.

Radianz® Quartz Surfaces

Engineering of finished products incorporating Radianz® quartz surface materials may help reduce waste through custom sizing, while also reducing waste and labor. The materials may also be integrated into modular designs allowing for additional flexibility.

INDOOR ENVIRONMENTAL EQUALITY

Radianz® quartz surface has passed the requirements of two **GREENGUARD** certification programs. **GREENGUARD Indoor Air Quality Certified® product** certification is granted for low-emitting interior building materials, furnishings and finish systems. The more stringent **GREENGUARD for Children & SchoolsSM** certification is granted for low-emitting interior building materials, furnishings and finish systems used in educational (daycare and K-12) environments. The positive results streamline the process for attaining points toward **LEED®** for Commercial Interiors certification in its Environmental Quality (EQ) 4.5 section. Any architect, builder or developer who includes **GREENGUARD**-certified Radianz® quartz surface products in commercial, institutional or multi-family housing projects will no longer have to wait for the otherwise lengthy **LEED®** certification process for its “Low-Emitting Materials, Systems Furniture and Seating” category.

Note: The **LEED® Green Building Rating System™** does not certify, endorse or promote any products, services or companies, nor do we track, list or report data related to products and their environmental qualities. **LEED** is a certification system that deals with the environmental performance of buildings based on the overall characteristics of the project. **USGBC** does not award credits based the use of particular products, but rather upon meeting the standards in our Rating Systems. All of **USGBC**'s Rating Systems and supporting documentation templates are available for free download at www.usgbc.org/leed.

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ABOUT SCS

SCS (Scientific Certification Systems) is a global leader in independent certification of environmental and sustainability claims. For more than two decades, SCS has developed internationally recognized standards and certification programs aimed at spurring the highest level of environmental improvements, social accountability and product performance. SCS programs span a wide cross-section of the economy, recognizing accomplishments in agricultural production, food processing and handling, forestry, fisheries, flowers and plants, energy, green building, consumer and business product manufacturing, and corporate social responsibility. The SCS Material Content Certification verifies that LOTTE ADVANCED MATERIALS is working responsibly to minimize environmental impact during the manufacturing process.



For more information, please visit www.SCScertified.com.

ABOUT USGBC

The U.S. Green Building Council (USGBC) is a nonprofit organization that certifies sustainable businesses, homes, hospitals, schools, and neighborhoods. USGBC is dedicated to expanding green building practices and education through its LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™. LOTTE ADVANCED MATERIALS, the producer of Staron® solid surface and Radianz® quartz surface products are a current member.



For more information, please visit www.usgbc.org.

ABOUT LEED

The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System™ developed by the U.S. Green Building Council (USGBC) encourages global adoption of sustainable green building and development practices. Architects, facility managers, engineers, interior designers, construction managers, government officials, and others use LEED® to help transform the built environment to sustainability. Staron solid surfaces and Radianz® quartz surfaces products are eligible to contribute towards the LEED® 2009 Rating System for many projects.

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