



CRADLE TO CRADLE CERTIFIED™ PPG ARCHITECTURAL GLASSES





our commitment

CRADLE TO CRADLE CERTIFIED™

The entire collection of commercial and residential architectural glass products by PPG has been *Cradle to Cradle Certified™*. PPG is the first glass manufacturer in the United States to earn this designation, which signals our commitment to meeting the building needs of our customers and our planet with environmentally progressive, high-performance products.

The following guide explains the *Cradle to Cradle Certified* programs and what it means for customers like you.

WHY WAS *CRADLE TO CRADLE* CERTIFICATION DEVELOPED?

Until recently, the eco-effectiveness of most building products was judged according to specific performance attributes; for instance, their ability to save energy, conserve water, eliminate airborne toxins or make use of recycled materials.

Today, the green building movement is embracing a more holistic view of sustainable building products that assesses their impact on the environment throughout their entire lifecycle. This approach encompasses not just how products perform in a finished building, but what materials they are made from, how they are manufactured and what impact they might have on the environment once their life as a building product is over.

The *Cradle to Cradle Certified* program was created to systematize these principles. It was developed by William McDonough, FAIA, an architect, and Michael Braungart, Ph.D, a chemist, to encourage the development of products with materials that can be endlessly recycled, as they are in the natural world. The company they founded, MBDC (McDonough Braungart Design Chemistry), is the sole administrator of the *Cradle to Cradle Certified* program.

HOW IS *CRADLE TO CRADLE* CERTIFICATION EARNED?

Products submitted to be *Cradle to Cradle Certified* are assessed according to five basic criteria:

1. *Materials*: The environmental and human health impact of their materials
2. *Material Reutilization/Design for Environment*: The capacity of those materials to be recovered and reutilized
3. *Energy*: The amount and kind of energy used in their manufacture
4. *Water Stewardship*: How water is used and water quality maintained in the manufacturing process
5. *Social Responsibility*: How the manufacturing company practices fair business principles and corporate ethics through interaction with customers and employees

PPG architectural glasses were *Cradle to Cradle Certified* Silver after a thorough audit of the materials used in their formulation and production, the processes used to manufacture them and PPG's commitment to a Global Code of Ethics.

WHAT ARE THE BENEFITS OF *CRADLE TO CRADLE* CERTIFICATION?

As green building practices continue to evolve, architects are seeking new ways to minimize the environmental impact of buildings and contribute to healthier ecosystems. One way to achieve those objectives is through the use of products, such as PPG glass, that are *Cradle to Cradle Certified*.

Cradle to Cradle Certified products may also be valuable to architects seeking *Leadership in Energy and Environmental Design* (LEED®) certification for their commercial or residential building projects. According to the U.S. Green Building Council, which administers LEED certification through the Green Building Certification Institute, building projects may be eligible to earn one point in the “Innovation in Design” category if the percentage of *Cradle to Cradle Certified* products used in their construction equals at least 2.5 percent of the project’s total materials cost.

Advanced architectural glazings from PPG also can contribute to LEED certification of commercial buildings and homes through their ability to transmit light and block solar heat, thereby reducing the need for artificial lighting and air-conditioning. *Solarban*® solar control low-e and *Sungate*® passive low-e glasses give designers the options they need to maximize energy efficiency. In fact, a series of recent studies has shown that *Solarban* solar control low-e glass can dramatically cut energy costs in prototype office and school buildings.

In a study comparing *Solarban*® 70XL glass with competitive products, energy modeling done with the Department of Energy’s latest software showed that it could lower energy costs by as much as 13 percent (or nearly \$100,000 per year) in a prototype eight-story, window-walled office building.

In the same head-to-head comparisons, *Solarban* 70XL glass reduced initial HVAC equipment costs by up to 13 percent (or more than \$400,000), and diminished related carbon emissions by as much as 300 tons per year, the annual output of 50 passenger vehicles.

Similar studies demonstrate that *Solarban*® R100 glass will significantly outperform rival neutral-reflective low-e glasses, and that *Solarban*® z50 glass will save more energy and require less HVAC equipment than comparable tinted glass products.

innovation in design

WHICH PPG GLASS PRODUCTS ARE CRADLE TO CRADLE CERTIFIED™?

All PPG residential and commercial glass products are *Cradle to Cradle Certified* and therefore, eligible to contribute to LEED certification through the “Innovation in Design” category. They include:

- *Solarban*® solar control low-e glasses*
 - Solarban*® z50 glass
 - Solarban*® 70XL glass
 - Solarban*® 60 glass
 - Solarban*® R100 glass
- *Oceans of Color*® nautically inspired tinted glasses
 - Azuria*® glass (formerly *Azurlite*®)
 - Atlantica*® glass (formerly *Solargreen*®)
 - Solexia*® glass (formerly *Solex*®)
- *Sungate*® 400 passive low-e glass
- *Starphire*® ultra-clear (low-iron) glass
- *Solarphire*® glass (solar industry only)
- *Vistacool*® subtly reflective color-enriched glasses
- Earth & Sky performance tinted glasses
 - Solarblue*® glass
 - Solarbronze*® glass
 - Solargray*® glass
- *Clarvista*® shower glass
- Clear glass

To learn more about *Cradle to Cradle Certified*™ PPG Architectural Glass products, visit www.ppgideascales.com/C2C.

* Also included *Optiblue*® substrate glass.



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7122 11/14 Printed in U.S.A.



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