

## US Glass Magazine names Crystal Windows & Door 2022 Green Award winner for production efficiencies

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## Crystal Windows Wins Green Award

Production Efficiencies
US Glass Magazine November 2022



## Production Efficiencies

O Crystal Window & Door Systems

A big part of Crystal Window & Door Systems' green and sustainability platform relies on its broad range of domestic suppliers for materials and components that go into



Crystal's New York factory operates with more than 2,300 solar panels that generate one million kW-h annually.

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its products. According to the company, average unit cost analysis shows that based on material and component sourcing, many of its aluminum and vinyl windows are 94% to 97% made in the USA. Crystal works with suppliers near its five production facilities across the country where possible. Because the company extrudes its vinyl profiles, it purchases vinyl powder in bulk domestically. The powder for extrusion is pumped into storage silos onsite at its main facility. This reduces packaging and trucking compared with smaller and more frequent extrusion deliveries.

Utilizing computerized customer and production information and optimization software, Crystal's logistics team analyzes delivery locations, customer order volumes, material and product shipments between its facilities, and supplier delivery options daily to minimize local and long-distance transportation. For example, Crystal has arranged with some suppliers for its drivers to pick upmaterials while delivery trucks are at customer locations or jobsites near supplier facilities, helping save unnecessary transportation for suppliers. In other instances, the company works with smaller customers located further from its manufacturing plants to connect

them with localized fenestration distributors.

Crystal has programs in place at its five U.S. factories to recycle all production scrap materials. From July 2021 to June 2022 at its New York and Pennsylvania plants, approximately 272,000 pounds of vinyl extrusion and product fabrication and accessory scraps were recycled as is or sent to outside services for regrinding then re-melted in vinyl powder feedstock.

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In addition, every facility has upgraded high-efficiency lighting and HVAC systems with automated controls. The company recently installed a one-MW solar electricity generation system at its New York factory. With more than 2,300 panels, the system will generate one million kW-h annually, offsetting nearly 35% of the factory's overall electricity needs. In a separate arrangement, Crystal receives hydropower supplying another 25% of its electricity needs. Up to 60% of the facility's electricity comes from renewable sources.

Crystal's sustainability efforts also extend into its community. The company's philanthropic foundation is developing plans to create a nature park on its property in Northeast Pennsylvania, which would provide the public access to appreciate the wetlands and learn about preserving wetlands for the water quality in the region.





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Queens, NY National manufacturer Crystal Window & Door Systems earned another industry recognition for its sustainable production operations. Leading national fenestration publication US Glass Magazine named Crystal Windows a 2022 Green Award winner for Production Efficiencies in the November 2022 issue. Crystal was one of only five companies this year (and one of only two based in the USA) whose products or production processes were recognized for efforts to provide a more healthy, sustainable living environment. Crystal's New York facility also received an environmental award from national Door & Window Market (DWM) Magazine.

"Crystal has long fostered a corporate culture to reduce, reuse, and recycle everywhere throughout all our factories," said Andy Shashlo, COO. "Each of Crystal's sustainable actions by itself may be small, but when added together, the impact on our operations is impressive. It is very rewarding to have our efforts recognized with this industry award from US Glass Magazine."

Crystal uses domestic suppliers for nearly all its product materials and components, it recycles all production scrap in various ways, and it optimizes logistics to coordinate between facilities, customers, project locations, and even supplier warehouses to reduce transportation. Crystal made a significant step this year with a one-MW solar electricity generation system installed at its New York headquarters and main production facility. The system will offset almost 35% of the company's overall electricity needs at this location. Crystal also receives hydropower for another 25% of its electricity needs under a separate arrangement.

US Glass Magazine selects Green Award winners based on strategies and commitment to environmental and operational performance, as well as high-performance architectural products.

For 2022, along with Crystal Windows, US Glass Magazine recognized two international glass manufacturers, AGC Glass Europe (at its facility in Belgium) and Saint-Gobain (at its facilities in France, Spain, and Germany), for low-carbon glass production, and Dow for carbon-neutral silicone products. South America-based glass and window fabricator Tecnoglass was recognized for its green production processes.

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