

## Case Study



Photos © 2014 Tom Kessler. All Rights Reserved.

## PROJECT CREDITS

**Owner**

Omni Hotels (TRT Holdings)

**Architect/Designers**

HKS (Hill Glazer Studio)  
Dallas, TX

**Vetro Products**

Solarban® R100 glass

**Glazing Fabricator**

Oldcastle BuildingEnvelope®  
Atlanta, GA

**Glazing Contractor**

Gardner Glass & Glazing, Inc.  
Atlanta, GA

The Omni Nashville Convention Center Hotel was constructed with Solarban® R100 glass by Vetro Architectural Glass (formerly PPG glass). The neutral-reflective, solar-control, low-e glass is part of an integrated energy management system that is expected to help the building use 20 percent less energy than a standard hotel of comparable size.

**Omni Nashville Convention Center Hotel**

NASHVILLE, TN

## PROJECT BACKGROUND

When architects Michael Strohmmer, AIA, vice president, and Eddie Abeyta, principal, HKS, Inc., Dallas, were given the task of designing the Omni Nashville Convention Center Hotel, the pair faced two primary challenges. The first was to integrate the new hotel, functionally and aesthetically, into a cherished landmark, the city's fabled Country Music Hall of Fame and Museum. The second was to make the building sustainable and energy-efficient enough to earn LEED® Silver certification from the U.S. Green Building Council (USGBC). With the help of Solarban® R100 glass by Vetro Architectural Glass (formerly PPG glass), the architects were able to achieve both objectives, while adding a signature attraction to the Music City skyline.

Solarban® R100 glass is a new solar control, low-e glass, based on Vetro's proprietary double-silver coating technology, that combines exceptional solar control performance with a soothing neutral-reflective aesthetic that is unique among its peers.

## Omni Nashville Convention Center Hotel

As two of the first architects to specify *Solarban*® R100 glass for a major building project, Strohmer and Abeyta conducted extensive testing to make sure it was the right choice for the 21-story skyscraper. “We started by looking at a few other projects that were installing *Solarban*® R100 glass, then we produced a building mock-up so we could study its color and reflectivity next to the other building materials we were using on the project,” Strohmer said. “That gave us confidence in our selection.”

The architects’ trust in *Solarban*® R100 glass was further bolstered when it was plugged into their energy model. “We wanted to use glass on about 90 percent of the building façade, so we needed to specify a high-performance product that would help mitigate the effects of Nashville’s warm, sunny climate on cooling loads,” he explained. “When we integrated performance data for *Solarban*® R100 glass into our model, we found that we could reduce the output of the mechanical systems enough to help achieve our targeted LEED Silver rating.”

With its advanced double-silver coating, *Solarban*® R100 glass offers visible light transmittance (VLT) of 42 percent and a solar heat gain coefficient (SHGC) of 0.23. That dual ability to block heat and transmit sunlight, which is reflected in the glass’s exceptional 1.79 light to solar gain (LSG) ratio, makes it an integral part of the hotel’s energy management system.

Other green strategies include harvesting of groundwater from the building site for landscape irrigation, low-flow plumbing fixtures that cut water consumption by nearly 30 percent, extensive use of regionally sourced and recycled materials, low-VOC paints and coatings, and sustainably harvested wood.

Together, these and other green building innovations enable the Omni Nashville Convention Center Hotel to use about 20 percent less energy than a standard hotel of comparable size.

The neutral appearance of *Solarban*® R100 glass and its low reflectivity also enable it to harmonize with other exterior features such as exposed steel and regionally sourced limestone.

For more information about *Solarban*® R100 glass and other *Cradle to Cradle Certified*™ architectural glasses by Vitro Glass, visit [vitroglazings.com](http://vitroglazings.com), or call **1-855-VTRO-GLS (887-6457)**.



One of the first buildings specified with *Solarban*® R100 glass, the Omni Nashville Convention Center Hotel earned LEED® Silver certification from the USGBC.

Overall, Strohmer said he was pleased with the end result. “HKS is known for delivering high quality, large-scale sustainable projects to the market. The Omni Nashville Convention Center Hotel is consistent with this commitment and we are very excited with the outcome. We believe the new hotel projects a timeless quality that has integrated the character and history of this great city.”

Strohmer’s firm will continue to use *Solarban*® R100 glass as well. “We have used [Vitre] glass on several other projects because of the performance and color selection available. [Vitre] appears to be the leader when it comes to producing high-performance glass coatings,” he said.