

Case Study



Omni Dallas Convention Center Hotel

DALLAS, TX

Owner

The City of Dallas

Architect/Designers

BOKA Powell (architect of record)
Dallas, TX

5G Studio Collaborative
(design architect)
Dallas, TX

Vitro Products

Solarban® 70 Pacifica® glass
Solarban® 60 Optiblu® glass

Glazing Fabricators

J.E. Berkowitz, LP
Pedricktown, NJ

Glazing Contractor

Trainer Glass
Dallas, TX



PROJECT BACKGROUND

With a stunning blue glass façade, fabricated from *Solarban® 70* (formerly *Solarban® 70XL*) *Pacificia®* and *Solarban® 60 Optiblu®* (formerly *Solarban® z50*) glasses by Vitro Architectural Glass (formerly PPG glass), the Omni Dallas Convention Center Hotel represents more than the latest and most visible addition to the city's glittering skyline. The \$550 million dollar facility also is the first building in Texas to earn LEED® certification for New Construction at the Gold level and the largest hotel outside Las Vegas to be awarded with this distinction.

The 1.2-million square-foot hotel, now the second largest in the Omni chain, was designed by BOKA Powell and 5G Studio to pay homage to the city's celebrated glamor and its muscular industrial history, all while creating a towering new standard for sustainable design.

The Omni Dallas Convention Center Hotel, fabricated from *Solarban® 70 Pacifica®* and *Solarban® 60 Optiblu®* glasses by Vitro Architectural Glass (formerly PPG glass), has achieved LEED Gold certification. The advanced solar control, low-e glasses maximize the natural city views while alleviating solar heat gain. The 1.2-million square-foot hotel is now the second largest in the Omni chain.

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Built on a former brownfield site, the hotel features an unconventional boomerang shape that, together with Vitro's advanced solar control, low-e glasses, maximizes city views while mitigating the effects of solar heat gain associated with Dallas's sunny, urban climate.

The architectural team specified *Solarban® 70 Pacifica®* glass for the hotel tower—floors 5 through 23—and *Solarban® 60 Optiblu®* glass for the north- and west-facing facades of the building podium, which encompasses floors 1 through 4.

For the hotel tower, the architectural team wanted a product that could deliver a SHGC of less than 0.20 to reduce energy consumption, along with high VLT to promote daylighting and low exterior reflectance to minimize the tower's impact on neighboring buildings and sites. The solution, *Solarban® 70 Pacifica®* glass, combines clear, triple-silver-coated solar control, low-e glass with a rich, deeply saturated blue tint. In a 1-inch IGU, the combination delivers a solar heat gain coefficient (SHGC) of 0.18 with exterior reflectance of 6 percent and visible light transmittance (VLT) of 30 percent.

Solarban® 60 Optiblu® glass was selected for the building podium to provide clear, natural views from the hotel's public spaces and because its subtle blue-gray tint perfectly complements the white stone cladding of the south- and east-facing facades.

With a SHGC of 0.31 and VLT of 51 percent in a 1-inch insulating glass unit (IGU), *Solarban® 60 Optiblu®* glass has a light to solar gain (LSG) ratio of 1.65 that is up to 30 percent better than other architectural glasses with the same lightly tinted, blue-green appearance.



Glass fabricator J.E. Berkowitz worked closely with the building team to ensure the highest possible optics for *Solarban® 70 Pacifica®* and *Solarban® 60 Optiblu®* glasses. The company processed all the glass internally, including heat-treating in three convection ovens, to meet rigorous standards for flatness, minimization of roller marks and panel-to-panel color consistency. The finished IG units were shipped sequentially to local unitizing plants to ensure that all units were installed in the proper order.

The ability of *Solarban® 70 Pacifica®* and *Solarban® 60 Optiblu®* glasses to transmit abundant light helped the building designers achieve another critical performance goal, which was to daylight 75 percent of the hotel's regularly occupied spaces and provide outdoor views to more than 90 percent of its occupied spaces.

Thanks to the performance of the architectural glass and the implementation of other advanced sustainable design strategies

such as brownfield siting, reflective roofing materials, automated lighting and HVAC controls, aggressive recycling programs and the use of certified brick and timber products, the hotel has achieved LEED Gold certification and been recognized by several other industry organizations for exceptional building and design.

Ed Netzhammer, managing director of the hotel, said the collaboration of the design team, along with city planners, the general contractor, construction team and representatives of the Omni chain were critical, not just to achieving LEED certification, but to creating a model for sustainable building in Texas.

"The remarkable effort put forth by every team member who had a hand in keeping the project focused on sustainability led to this significant milestone," he said. "We are thrilled with this acknowledgement and look forward to continuing to be a sustainability leader in the hospitality segment."

For more information about *Solarban® 70* glass, *Solarban® 60 Optiblu®* glass, *Pacifica®* glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit vitroglazings.com, or call 1-855-VTRO-GLS (887-6457).