Panorama® Window Films: Success Stories

Airport Tower, Irvine, California


Daytime view with film


Nighttime view with film

Installation Summary

Problem:

Excessive solar heat and glare

Need to maintain interior and exterior aesthetics

High utility bills

Views and daylight blocked by blinds

Solution:

Solar Gard® Panorama® Slate 20

Amount of film:

28,612 sq. ft. (2,658.7 sq. m.)

Benefits:

Reduced heat and glare

Building appearance virtually unchanged inside and outside

Lower energy bills (approx. 25 fewer kWh per month in first 60 days)

Rebate awarded by Southern California Edison

Restored views and daylight

"After installing Solar Gard Panorama Slate 20 window film, we now have a more controlled building envelope. It's easier to balance saving energy with providing a comfortable work environment for our tenants." Jenny Blanchart, CPM, LEED Green Associate, theMULLERcompany

Solar Gard preserves aesthetics while increasing comfort.

Airport Tower in Irvine, California, is a landmark high-rise office building in Orange County, located near John Wayne Airport. Recognized for its circular design, the building's iconic exterior features white marble, polished stainless steel and silver reflective glass. Unfortunately, the windows that add striking aesthetic value to this 17-story structure were also the source of excessive solar heat and glare. Tenants who appreciated the sunshine and beautiful views from the upper stories complained about uncomfortable temperatures and invasive glare. Turning window blinds to a 45-degree angle to combat the heat problem meant sacrificing the light and view, and using air conditioning to compensate for solar heat gain and hot spots led to high energy bills for theMULLERcompany.

Airport Tower includes 237,639 square feet (72,432 meters) of mixed-use office space that houses the offices of the Transportation Safety Administration and The Irvine Museum, among other tenants. In researching ways to reduce energy costs, improve occupant comfort, and maintain the building's aesthetics, Jenny Blanchart of theMULLERcompany called on Kim Henderson of Royal Window Films, Inc., a WBE operated by Kim and her husband John in Anaheim, California.

To help with decision-making, Royal conducted a heat-load test that demonstrated a noticeable drop in thermal load on the glass with Solar Gard film installed. A film comparison test using a control film sample and three types of Solar Gard film installed on actual building windows, made it easy to see how each film affected the windows' appearance on the outside and inside. Panorama Slate 20, barely noticeable on the inside of the windows, produced almost no color or light changes on the reflective finish outside. The winner in aesthetics, Panorama Slate 20 also performed well in reducing heat and glare while allowing natural daylighting.

The seamless installation of Panorama Slate 20 was finished in November 2012. Over the first two months, electrical usage decreased from an average range of 215-216 kWh to 191-194 kWh.

Southern California Edison issued a $24,956.95 incentive based on calculated energy savings and reduction of use during high-energy periods. In addition, the building's energy-saving performance helped it achieve LEED silver certification in September 2013. theMULLERcompany is looking forward to studying the first year's data to compare the temperature differences and energy savings with and without Panorama Slate 20. They expect to save approx. $2,500 per month in utility bills, and anticipate a 24-month payback period.

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