

CASE STUDY

HÜPER OPTIK®

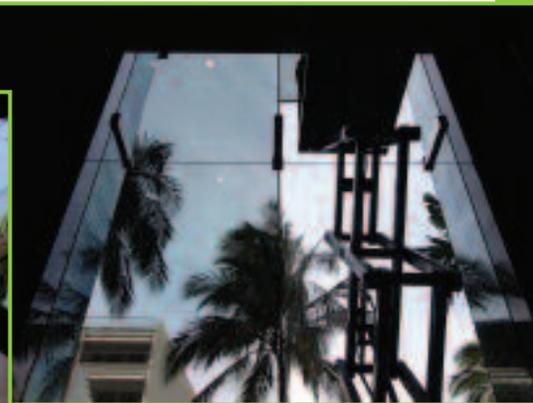
Nano-Ceramic Window Films



ENERGY SAVER CERAMIC 35

ENERGY STAR CERTIFIED COMMERCIAL PROPERTY

1132 Bishop Street - Honolulu, Hawaii



- *Helps commercial chillers last longer*
- *Turns existing windows into "SUPER WINDOWS" for a GREEN Solution for LEED Buildings*
- *Helps Achieve LEED Points in Energy Reduction, Thermal Comfort and Innovation and Design*
- *Helps achieve LEED Points in Thermal Comfort, Daylight and Views*

Task:

The Douglas Emmett Property, 1132 Bishop, located in beautiful Honolulu, Hawaii, wanted to increase energy savings, and become a more energy efficient property by using more natural light. Chief Engineer Ed Lewis mobilized the property's facility management team, and early on decided that the goal for the property would be no less than to achieve Energy Star – approved status.

Solution:

Hüper Optik's Energy Saver Ceramic 35 was chosen because of the film's unique ability to preserve views, and protect the recent upgrades in environmentally friendly flooring and furniture. The film's single layer ceramic technology delivered all the increased energy-saving performance of a traditional film, but with a clear view to Honolulu's beautiful foliage and outdoor scenery.

Result:

The extreme energy saving performance of Hüper Optik's single-layer ceramic delivered a comfortable environment for the tenants of 1132 Bishop. The building's engineers were able to report a reduction in the average cooling temperature; thus allowing the chillers to operate more efficiently during peak load demand. Upon 80% completion of the film installation, the savings of the electric bill for the facility in September 2008 was already 57,000 KWH compared to August. Total savings for the first three months of tinting were 110,580 KWH or \$31, 718. On April 30, 2009 the property's Energy Star application was approved...Energy Saver Ceramic 35 helped the 1132 Bishop team earn the prestigious Energy Star.



INDUSTRY PARTNER



INTERNATIONAL WINDOW FILM ASSOCIATION

Performance data is based on this film being applied to the inside of 3mm clear glass. All data calculated using the definitions and equations in ISO9050 & ASHARE Handbook. The data is subject to variations within industry standards. Copyright © 2009 Hüper Optik® USA (www.huperoptikusa.com), 17356 Northwest Frwy, Houston, TX 77040; phone: 888.296.3456; fax: 832.467.1190



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Meister Keramische Technologie



According to the Alliance To Save Energy, commercial buildings account for 72% of electricity and 40 % of all energy used in the U.S. (www.ase.org). This number is expected to increase exponentially through 2030. As with many existing commercial buildings, retrofitting proved to be a viable option for Chief Engineer Ed Lewis and the 1132 Bishop team... like most property management interests, Douglass Emmett wanted to make its commercial properties more energy efficient, but on strict budgetary guidelines.

Building Profile Stats-

- Building built in 1992
- Number of Occupants: 1,400
- Percentage of Occupancy: 86%
- Past Energy Usage: nearly one third of all electric costs were spent to heat and cool the building the average cost of HVAC in 2008 was \$484,000.

“We intend to apply for LEED Certification by 2011.”
-- Ed Lewis, Chief Engineer

Energy Savings At A Glance, Through Hüper Optik®

Dollar Amount Saved per month, since Hüper Optik® Film Installation:

\$16,087 @ 17 cents per Kilowatt hour

Increase in Energy Star points after Hüper Optik® Film Installation:

Energy Star rating went from 78 to 83

Decrease in Monthly Energy Usage:

94,629 in Kilowatt hours was the average saved in the first seven months of 2009

Overall Energy Savings Year-to-Date:

\$112,609 for 7 months based upon 17 cents per kilowatt hour

“Our Energy Star rating went from 78 to 83, with the application of Hüper Optik’s Energy Saver Ceramic Series.”
-- Ed Lewis, Chief Engineer