CASE STUDY: Protection For Hill Country Home

Site
Lihiwai Historic Residence

Location
Honolulu, Hawaii

Window Film
Crystal Elegance V58 SR CDF

Product Series
Neutral Series

SITUATION

Lihiwai is the largest privately owned residence ever constructed in Hawaii. It was built in the 1920s by Hawaii's second Territorial Governor George Carter and his wife Helen on an 11acre site as an indestructible fortress that was to last forever. Their previous home had fallen prey to termites.

Completed in 1929, the house remained in the Carter family until 1945, when it passed through many owners and eventually became a nursing home. The current owners David and Valeree Dressel purchased the house in 1980 determined to return it to the original magnificence. In the 35 years after the departure of the Carters the building had fallen on hard times and was decidedly run down. It has taken 20 years of dedication, hard work, and investment to bring back the glories of past time. But as David Dressel puts it "With the exception of the furniture, the Carters could walk in here, look around and say "Yes, this is our house". Exquisite furniture and works of art now enhance the 40 rooms and 30,000 square foot living area. Many are irreplaceable and priceless. With spacious "view" windows and the brilliant and unrelenting Hawaiian sun, there is a constant need for protection from the damaging solar rays. This was at first met by covering furnishings and art during the day with drop cloths and cardboard, which hardly added to the carefully crafted aesthetics!

SOLUTION

Frustration and word of mouth led David Dressel to a solar control expert, the local Vista™ by LLumar® dealer who quickly explained that it was the sun's ultraviolet light and infrared rays that were combining to cause the fading of the furnishings, draperies, artwork, paneling, and floors. Moreover this could be thwarted with the installation of appropriate window film. Vista™ by LLumar® Crystal Elegance was chosen because it blocks more than 99 percent of ultraviolet rays, helping protect against premature fading.* The film is a micro-thin laminate of ultraviolet-treated polyester, metallic particles, and ultraviolet-absorbing adhesives which when professionally installed on the inside of window glass is undetectable and will not interfere with viewing. Crystal Elegance is finished with a clear distortion-free scratch-resistant surface that is easily maintained. It was installed promptly, without interrupting the normal daily house activities, to provide the protection needed and enable the drop cloths and cardboard to disappear!

RESULT

Now the Dressels can enjoy their house all day and yet feel secure in the knowledge that their valuable possessions are safeguarded. Vista Crystal Elegance film will be on guard for many years to come. The film carries a lifetime residential limited warranty.

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Performance Data

	% Total Solar Transmittance	% Total Solar Reflectance	% Total Solar Absorptance	% Visible Light Transmittance	% Visible Reflectance (exterior)	% Visible Reflectance (interior)	Winter U-value	Shading Coefficient	% Ultraviolet Ray Protection (wavelengths 280-380nm)	Emissivity	Solar Heat Gain Coefficient	% Total Solar Energy Rejected	Light-to-Solar Heat Gain Ratio (LSG)	% Summer Solar Heat Gain Reduction	% Winter Heat Loss Reduction	% Glare Reduction
Clear Glass	83	8	9	90	8	8	1.03	1.00	29	0.84	0.86	14	1.05	–	–	–
Neutral Series																
Crystal Elegance V58 SR CDF	55	10	35	60	11	9	1.07	0.76	>99	0.90	0.66	34	0.91	23	-3	33

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