CASE STUDY: Preserving precious interior furnishings

Building
The Preservation Society

Location
Newport, Rhode Island, USA

Window Film
N-1035B SR CDF (Bronze)
N-1050 SR CDF (Neutral)

Type
Solar Control Film

SITUATION

World famous for their grandeur and beauty, the "Cottages" of Newport are palatial historic homes set in the magnificent surroundings of the Rhode Island Sound. The Preservation Society of Newport County today maintains these stately properties and their irreplaceable interior furnishings—fine tapestries, portraits, wall panels, ceiling paintings, French and Oriental carpeting, and opulent linens. Over the years, these items had begun to fade and deteriorate from exposure to sunlight.

SOLUTION

Curator Paul F. Miller retained the services of a window film specialist to help the Preservation Society protect its valuable assets. Miller chose to install LLumar® window film, which blocks 99% of UV rays, the principal cause of interior fading. The specific films employed, LLumar N-1050 SR CDF and N-1035B SR CDF, are neutral in color and optically clear, so views are not impaired.

RESULT

First installed on two Preservation Society properties, the Society now plans to install LLumar window film on a number of others. As Miller describes it, "We see these historic properties as a major link between Newport and America's past, and we will not let them fade away." The films have not only greatly reduced interior fading—they've significantly reduced energy costs for the Society.

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	Neutral films reduce glare, provide good heat rejection and are specified where a soft, neutral appearance is desired. These films are made with sputtered technology. Neutral films are scratch-resistant and shield 99% of UV rays.															
N-1035B SR CDF (Bronze)	26	37	37	37	26	23	0.92	0.41	99	0.61	0.36	64	1.03	58	12	59
N-1050 SR CDF (Neutral)	46	12	42	50	14	11	1.07	0.68	99	0.89	0.59	41	0.85	31	-3	44

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