

Site

Tuxedo Firehouse

Location

Tuxedo, New York

Window Film

Mirage V38

Mirage V38 Safety

Product Series

Dual-Reflective Series

Safety & Security Series



SITUATION

The newly built, state of the art firehouse of Company One, Tuxedo Fire Department makes use of the very latest fire safety technology, strictly conforming to federal and state building codes. Modernity notwithstanding, the new firehouse appears as if it had been built in the early 1900s to blend naturally into the historic town environment. The old firehouse had served the community for nearly half a century. However, it was designed to house and maintain only two fire trucks.

As the years passed, the building was unable to accommodate additional and newly designed equipment, thereby endangering the safety of Company One's 35 volunteer firefighters. Large glass paneled doors now provide easy passage for the major firefighting trucks and emergency vehicles, while multiple glass windows provide an aesthetically pleasing facade. These same large expanses of glass can also create problems if not treated ... from the high cost of frequent repainting of fire trucks to the replacement of firefighter uniforms, hoses, etc.

SOLUTION

The architect anticipated these problems and had Vista™ by LLumar® Mirage Solar Control Window Film professionally installed immediately after the building's completion for protection. Significant maintenance costs are usually sustained because the sun's ultraviolet rays penetrate the glass windows, washing out the bright red paint on fire trucks and compromising the integrity of fire suits, fire hoses and other equipment. After consulting the local Vista dealer, Vista Mirage film was chosen and installed on the windows. The dual-reflective film blocks more than 99 percent of the sun's ultraviolet rays from entering the firehouse, helping protect against premature fading* and coincidentally reduces solar energy and the sun's glare both by 57 percent. The dual-reflective film total, whose inside and outside surfaces have different light reflectance values, provides excellent visibility at all times of day and night. For added safety Vista Mirage Safety film, a thicker six-mil film, was installed on the large garage doors. The thickness of the safety film and a unique bonding system are key factors in the extra protection provided. In the event of damage, Mirage Safety film will help hold shattered glass in place together and help prevent glass fragments from becoming dangerous projectiles to firefighters and other occupants inside the firehouse. The film also deters vandals in case of a break-in.

RESULT

Company One's new firehouse and improved firefighting capabilities, which were paid for entirely by volunteers, now stands ready to serve the community for years to come, while its firefighters are being protected as well.



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	-	-	-
Dual-Reflective Series																
Mirage V38 SR CDF	30	26	44	39	26	17	1.01	0.49	>99	0.78	0.43	57	0.91	50	3	57
Safety & Security Series																
Mirage Safety V38 SR PS8	31	25	44	39	25	18	1.06	0.52	>99	0.88	0.45	55	0.87	48	-2	57

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The solar performance data reported for LLumar architectural window films was captured using the National Fenestration Rating Council's (NFRC) standard guidelines for window film solar performance measurement as measured on single pane, 1/8 inch (3 mm), clear glass. Reported values are taken from representative product samples and are subject to normal manufacturing variances. Actual performance will vary based on a number of factors, including glass type and properties. *Films do not eliminate fading—they reduce it. UV rays and heat are contributing factors to fading but other factors exist. For further information, see LLumar.com/download-library. © 2008, revised 2016 Eastman Chemical Company. VISTA™, the VISTA® logo, LLumar®, the LLumar® logo and Enerlogic® are trademarks of Eastman Chemical Company or one of its wholly owned subsidiaries. As used herein, ® denotes registered trademark status in the U.S. only. (06/16) SP1104