

Ullman Building, Haifa, Israel

Film Type → SolarZone OptiTune Dual Reflective Films



Saved
25 kWh
per
SQFT

1 Year
Simple
Payback

Verified
Savings

SolarZone delivers comfort for students, sets record payback at university.

PROJECT TASK

At Ullman building in the Technion - a leading engineering and science academic institute in Israel, cooling has been a challenge for about 8 months every year. For students in the offices and classrooms along the South wall of the building, classes and work through most hours of the day meant excess heat and exposure to solar radiation. The institute's Chief Electrical Engineer, Itzick Romano, notes that in terms of energy consumption, it took the air conditioning units a significant portion of the duration of the class to cool the space, and even after the space was cooled, occupants located near windows felt uncomfortable.

SOLUTION

When a program was launched to increase energy efficiency and reward faculties with added budget according to the savings they are able to achieve, Technion engineering team consulted with Hanita Coatings partner Al-Sorag and decided to evaluate SolarZone OptiTune dual-reflective films as a potential solution.

A trial installation and study was performed in the spring of 2010, after which it was decided to go ahead with the installation of about 300 sqm of OptiTune 05 film on the building's single-pane clear glazing. A year after the full installation, consumption of the 12 months after installation was compared to the year before. SolarZone window

film was the only energy conservation measure (ECM) introduced in the Ullman building.

RESULT

The results that were measured by the engineering team were impressive compared to any ECM installed in the program, and certainly a new record as it related to envelope improvements, which are often considered not sufficiently attractive economically.

Besides the 75,000 kWh saved in annual energy consumption, Romano states that the thermal comfort level has increased significantly throughout the building. "The glare reduction in the afternoon has also been reported as a major benefit to occupants" he adds, "the SolarZone project with Al-Sorag and Hanita Coatings has performed beyond our expectations."

