TECHNOLOGY

How do Applied Solar-Control Films work?

REDUCE HEAT GAIN
BY ABSORBING OR
REFLECTING SOLAR ENERGY
Spectrally-selective films affect only the infrared spectrum, with little impact on the visible appearance of glass.

RESULTS

How did Applied Solar-Control Films perform in M&V?

GLAZING DEPENDENT
COST-EFFECTIVE FOR SINGLE-PANE CLEAR;
NOT RECOMMENDED FOR DOUBLE-PANE BRONZE IN MOST CLIMATES

REFLECTIVE MORE EFFICIENT
UP TO 29% HVAC ENERGY SAVINGS IN WARMER CLIMATES

Modeled Energy Savings For Range of Base Windows and Climates
Payback for liquid-applied absorbing @ $8/ft² (80% of current cost) and reflective @ $10/ft²

DEPLOYMENT

Where does M&V recommend deploying Applied Solar-Control Films?

SINGLE-PANE CLEAR WINDOWS
Target buildings in climates with hot summers and mild winters, exposure to direct sun without exterior shading, and south, east or west orientations.

Reflective film is currently more cost-effective and more broadly recommended. Consider absorbing films for historic buildings where reflected solar radiation might damage exterior wood trim.

2Ibid, p.10
3Ibid, p.9
4Ibid, p.54