

The Outside Weatherable Advantage

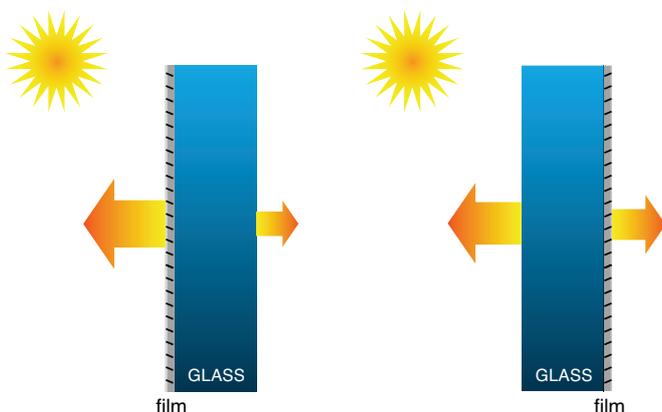
Outside weatherable film

Outside weatherable window film (OSW) is a weather-resistant film manufactured with a high-tech, scratch resistant durable coating that protects the film from exposure to the harsh elements of the outdoor environment. Specially designed to be installed on the outside of the window, OSW films provide numerous advantages in terms of performance, versatility and ease of installation.

The energy advantage

Outside weatherable film provides owners and occupants with an energy advantage by improving the total solar energy rejected from a window. Just like indoor window film, OSW film blocks solar heat from entering the windows.

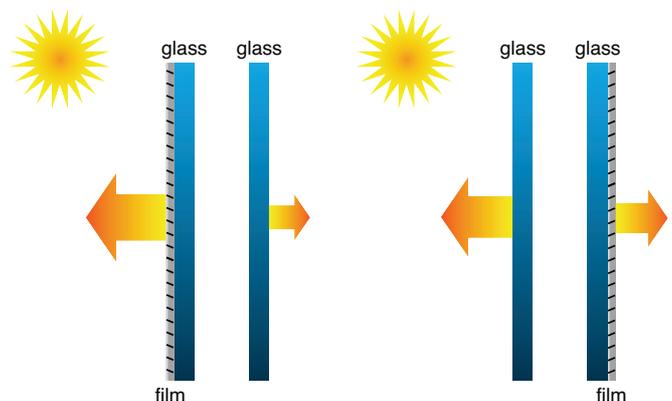
OSW films also naturally expel more of the solar energy outdoors instead of absorbing it into the film itself. When solar radiation strikes window film, some of that radiation is absorbed into the film, causing the glass temperature to rise. The energy in the glass can then be conducted either inside the room or outdoors. With OSW films, more of the absorbed energy is released into the outside air, which puts less stress on the actual glass.



Film on the outside of the glass (left) releases thermal energy to the exterior more easily than film on the inside of the glass (right).

By applying film on the outside of the window rather than the inside, more of the energy absorbed by the window film is conducted directly outdoors. This benefit is in addition to the high performance attributes of the window film, including solar heat rejection, glare reduction and UV protection.

The reduction in absorption of outside weatherable film is even more important for double pane glass units. When traditional indoor window film is installed on the inside of an insulated glass unit (IGU), it can cause the inner pane of glass to heat more than the outer pane. This variance in temperature creates stress on the glass and can cause the glass to break. By applying the window film to the outer pane of an IGU, the heating effect is transferred to the external pane. The external pane naturally releases more of the absorbed energy back outdoors into the air, eliminating any stress on the glass. The result is safely applied film that provides superior total solar energy rejection for a more energy efficient building.



The benefit of OSW film applied to the outside makes it safer to apply to double pane glass

Solar Heat Gain Coefficient is Further Improved with OSW Film

	Film (on 4mm Glass)	SHGC
Single pane	No film	.84
	Silver 20	.24
	Sentinel Silver 20 OSW	.18
	Sentinel Silver 35 OSW	.33
Dual pane	No film	.74
	Silver 20	.32
	Sentinel Silver 20 OSW	.14
	Sentinel Silver 35 OSW	.27