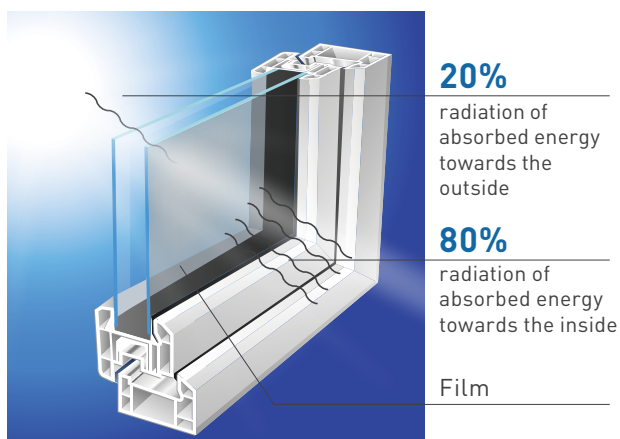




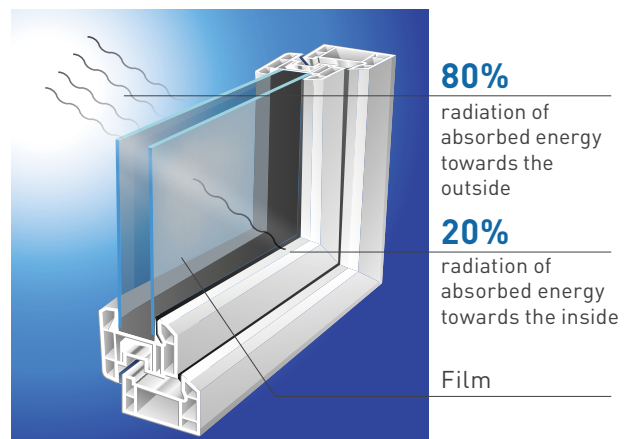
Irradiated energy consists of three parts: reflected, transmitted and absorbed energy. **Absorbed energy is radiated back into the environment by the structure of the window, and its amount plays a very important role in assessing the efficiency of an architectural window film.**

With single pane windows, it is a simple matter: in case of identical interior and exterior temperatures, energy is radiated towards the inside and outside 1:1. The situation is different with a dual pane low-e glass that is generally used nowadays (with a metallic coating to reduce winter heat loss). **With these glasses, energy radiation is decreased by the low-e coating and by the air between the glass panes.** As a result, the ratio of heat transfer towards the inside and outside is about 80% and 20% respectively. If an exterior window film is installed, the ratio is reversed, therefore the film is much more efficient.

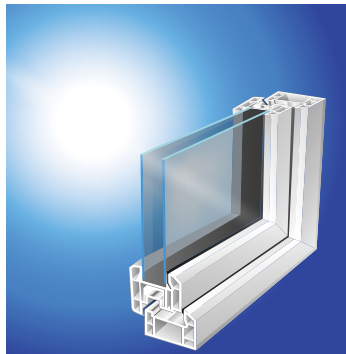
INTERIOR WINDOW FILM



EXTERIOR WINDOW FILM



DUAL PANE LOW-E GLASS WITH INTERIOR VS. EXTERIOR SILVER 35 FILMS

	Skyfol SI35 reflective silver interior film on dual pane low-e window	Skyfol XT33S reflective silver exterior film on dual pane low-e window
Total Solar Energy Rejected	55%	78%
		



DUAL PANE LOW-E GLASS WITH INTERIOR NEUTRAL VS. EXTERIOR NEUTRAL 35 FILMS

	Skyfol DR35 neutral interior film on dual pane low-e window	Skyfol XT36DR neutral exterior film on dual pane low-e window
Total Solar Energy Rejected	38%	74%
		

It can be clearly seen from the above that there might be considerable differences in the technical parameters of certain window films when applied on a developed glazing system. Unfortunately, a lot of distributors and installers offer window films based on data measured on single pane glasses, which is a serious professional mistake. There are, naturally, other aspects as well which must be taken into consideration, e.g. if the client asks for low reflectivity or low visible light filtering. As everything, exterior and interior window films have their advantages and drawbacks as well.

	Interior	Exterior
Durability	15-20 years	5-7 years
Heat protection	performance is considerably worse on dual pane insulating windows	performance increases on dual pane insulating windows
Installation period	can be installed any time	only if the weather permits
Installation quality	installation is cleaner	dust-free installation is not possible
Edge sealing	only with high humidity, films with silver or copper	mandatory with all film types