



Beat the heat.

With Saflex® solar-absorbing interlayers, automakers are improving cabin comfort by degrees.



Saflex solar-absorbing polyvinyl butyral (PVB) interlayer is an award-winning breakthrough for the automotive industry. It effectively blocks solar heat and UV radiation transmitted through a vehicle's glazing while optimizing occupant visibility.

An easy-to-implement solution that quickly lowers interior temperatures, advanced automotive solar control glass made with Saflex cools the passenger cabin to minimize strain on the air conditioner (AC) and thereby improve fuel efficiency.

Testing conducted by the National Renewable Energy Laboratory (NREL) determined that a windshield made using Saflex can reduce cabin temperatures up to 5°C (9°F), which translates to a potential 4% reduction in air conditioning power versus a conventional windshield. That reduction in air conditioning translates to a fuel efficiency improvement greater than 1%.

Such improvements may seem minor when considered on a per-vehicle basis, but when taken across an entire fleet or population of drivers, the impact can be astounding.

Bright reasons to choose Saflex



Increased fuel efficiency

Lower cabin heat reduces AC use.



Reduced weight

Lower temperatures enable smaller AC units.



Reduced CO₂ output

Improved fuel efficiency helps meet U.S. EPA targets.



Signal enabling

No electromagnetic interference for mobile devices



Acoustic comfort

Reduces exterior noise by up to 5 dB



UV protection

Blocks more than 99% of harmful UV radiation



Improved cabin comfort

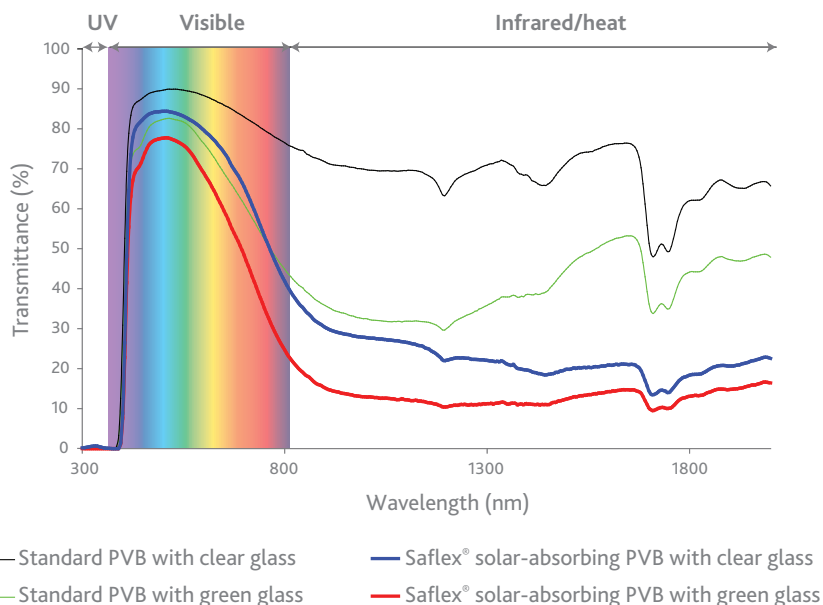
Lower interior vehicle temperatures

Reduce infrared waves.

Saflex S series solar-absorbing interlayers are designed to effectively absorb infrared (IR) light radiation from the sun in the wavelengths that are responsible for generating excessive heat in vehicle interiors. When compared to windscreens made with standard interlayers, Saflex provides measurable heat reduction in the passenger cabins of stopped or slow-moving vehicles by absorbing the heat-causing IR rays without compromising visibility.

In fact, Saflex S series works so well that Frost & Sullivan recognized it with the 2012 New Product Innovation Award for Automotive Glazing Materials. Saflex S series also received the Skin Cancer Foundation's Seal of Recommendation, marking the first and only time an automotive-grade PVB has been recognized for its ability to block more than 9% of UVA and UVB radiation.

Solar transmittance comparison¹



¹Rugh, John P; Chaney, Lawrence; Ramroth, Lauries; Venson, Travis; Rose, Matthew; 2013, "Impact of Solar Control PVB Glass on Vehicle Interior Temperatures, Air-Conditioning Capacity, Fuel Consumption and Vehicle Range." SAE International 2013-01-0553.

Solar performance*

Configuration	Visible light transmission (% Tvis)	Direct solar transmittance (% Tds) ISO 13837
Clear glass/PVB/clear glass	88.9	74.4
Clear glass/Saflex S series PVB/clear glass	82.2	52.5
Green glass/PVB/green glass	78.6	53.6
Green glass/Saflex S series PVB/green glass	73.5	40.2

*Actual results may vary depending on glass type configuration.

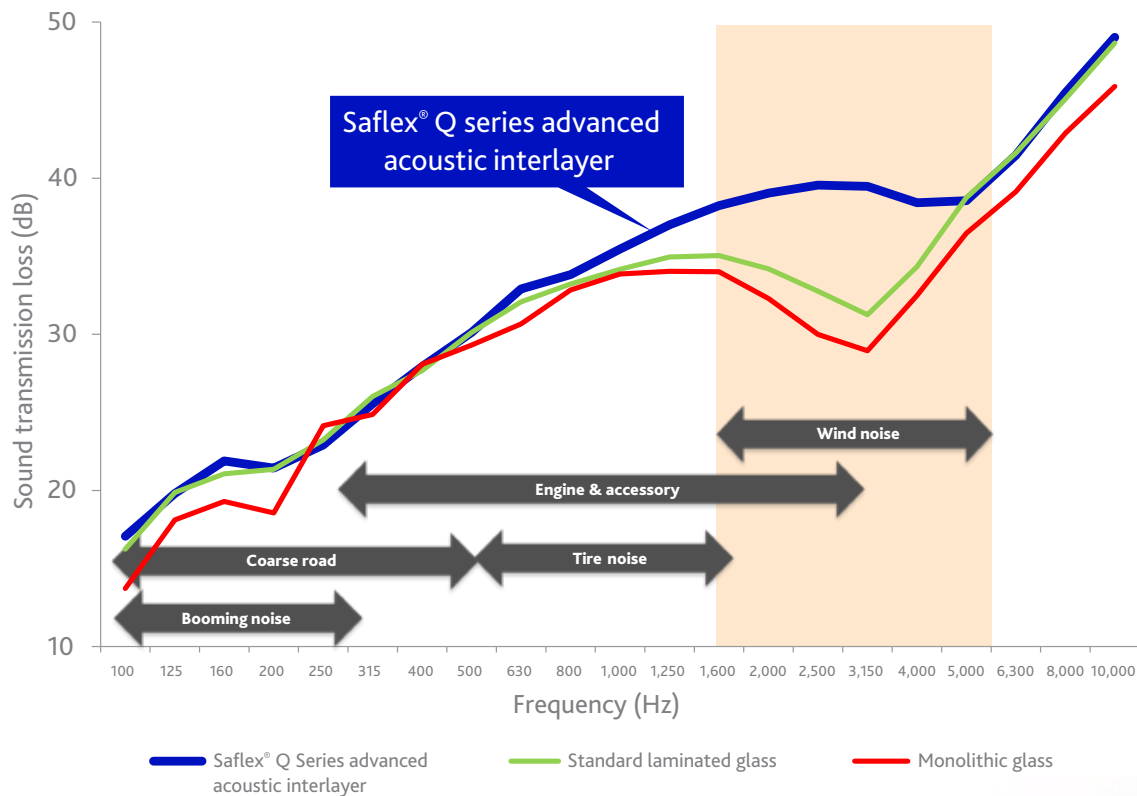


Another **sound** reason to switch

With Saflex Q series advanced solar acoustic interlayers, automakers can combine high performance solar-absorbing glazing with platforms featuring acoustic interlayer technology. In the past, installing a thinner windscreen compromised sound comfort. Changing the configuration from 2.1/2.1 to 2.1/1.6 mm, for example, can affect sound transmission loss by up to 1 dB in the 200 to 900 Hz frequency range. But using Saflex Q series as an

acoustic interlayer greatly improves sound transmission loss in the wind noise frequency by 3 dB overall, regardless of the glass configuration. And by replacing standard windshields and side tempered glass with solar acoustic windshields and laminated side glass made with Saflex Q series solar acoustic interlayers, automakers can reduce perceived cabin noise by up to 5 dB.

Saflex Q series greatly improves sound transmission loss—by up to 5 dB overall and up to 10 dB in the critical wind noise region.



Applications

Windscreen, side window, sunroof, back glass, quarter glass



Driving performance through material innovation



For more information,
visit us online at saflex.com.

Trust the experts.

Around the world, automotive engineers trust Eastman when performance and safety are critical concerns. The reason is simple: Saflex interlayer technology delivers advanced glazing performance for demanding applications, meeting exacting specifications and targets. The industry counts on Eastman for technical and development expertise—making Eastman a global leader in PVB interlayers for automotive applications.



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