

XIR®

XIR® Automotive Films – Solar Control Technology

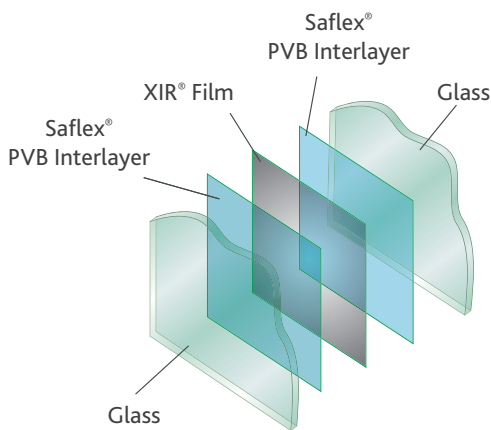
Environmental concerns such as fuel efficiency and CO₂ emissions reduction are among the most important issues automotive OEMs face in the coming years. Advanced automotive solar control glass made with XIR® automotive solar control technology is a drop-in solution which lowers interior temperatures quickly, cooling the passenger cabin to minimize strain on the air conditioner and improving fuel efficiency.

XIR automotive film is a transparent coated film that is encapsulated between layers of Saflex® PVB (polyvinyl butyral) in laminated automotive glass to form a protective barrier against the harmful effects of the sun. The spectrally-selective metallic coating reflects heat-causing infrared (IR) rays without impairing visible light transmission. XIR laminated glass reduces solar heat gain an average of 35% more effectively than tinted glass.

Laminated glass incorporating XIR automotive film is CO₂ credit eligible, allowing automotive OEMs to receive US EPA off-cycle credits and reduce annual fleet emission levels. XIR automotive film boasts proven solar control performance and has been used in more than 25 million vehicles produced by the world's largest automobile OEMs over the past 20 years.



Applications: Windscreen, Side Window, Sunroof, Back Glass, Quarter Glass



XIR® Automotive Films

Sealed between two layers of Saflex PVB and two sheets of glass which selectively blocks heat-causing near infrared (IR) energy and damaging UV rays with high visible transparency and neutrality.



Improves Cabin Comfort

Reflected infrared (IR) rays lowers interior vehicle temperatures



Increases Fuel Efficiency

Reduced cabin heat results in lower air conditioning (A/C) usage, resulting in lower fuel consumption



Reduces CO₂ Emissions

Improved fuel efficiency reduces CO₂ emissions



Reduces Weight

Decreased A/C usage allows ability for smaller A/C system unit size



Improves Acoustic Comfort

Reduced exterior noise via XIR laminated glass results in enhanced acoustic comfort

PARAMETER	XIR® 75 G2	XIR® 70	XIR® 70.48	XIR® 70 HPS	TEST METHOD	
Visible Transmission (T_{VIS})	≥75.5 %	≥71.0 %	≥71.5 %	≥71.5 %	ASTM E 308 (Illumination A, 2° observer)	
Total Solar Transmission (T_{TS})	≤56.0%	≤54.0%	≤48.0%	≤48.0%	ISO 13837 (Conv. A; AM 1.5)	
Visible Reflection (R_{VIS}) ¹⁾	≤12.0 %	≤9.5 %	≤10.0 %	≤10.0 %	ISO 9050 (Illumination A, 2° observer)	
Reflection Color	(R_a^*) ¹⁾	-7.0 ± 1.5	-2.7 ± 2.0	-6.5 ± 2.5	-2.7 ± 2.0	ASTM E 308 (Illumination D65, 10° observer)
	(R_b^*) ¹⁾	-2.5 ± 2.5	0.0 ± 2.0	-2.5 ± 2.5	0.0 ± 2.0	

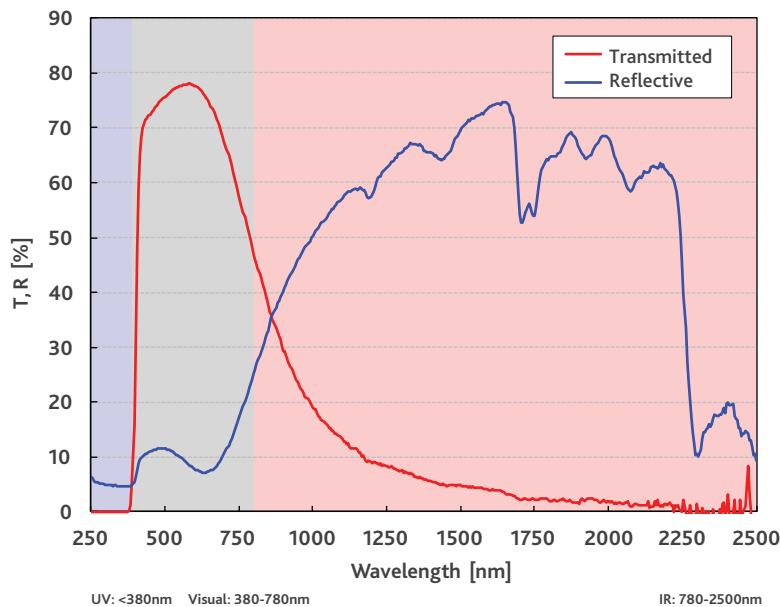
1) Reflection measurement is performed from the coated side of the film.

Optical Performance is measured in a standard glass laminate, composed of the following:

2.1mm clear float glass
 0.38mm Saflex® RK11 PVB
 XIR® Film
 0.38mm Saflex® RK11 PVB
 2.1mm clear float glass



XIR® SPECTRAL DATA



This technical information is intended as a guideline only.

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