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
<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>XIR® 75 G2</th>
<th>XIR® 70</th>
<th>XIR® 70.48</th>
<th>XIR® 70 HPS</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visible Transmission (T_{vis})</td>
<td>≥75.5 %</td>
<td>≥71.0 %</td>
<td>≥71.5 %</td>
<td>≥71.5 %</td>
<td>ASTM E 308 (Illumination A, 2° observer)</td>
</tr>
<tr>
<td>Total Solar Transmission (T_{ts})</td>
<td>≤56.0 %</td>
<td>≤54.0 %</td>
<td>≤48.0 %</td>
<td>≤48.0 %</td>
<td>ISO 13837 (Conv. A; AM 1.5)</td>
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<tr>
<td>Visible Reflection (R_{vis})</td>
<td>≤12.0 %</td>
<td>≤9.5 %</td>
<td>≤10.0 %</td>
<td>≤10.0 %</td>
<td>ISO 9050 (Illumination A, 2° observer)</td>
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<tr>
<td>Reflection Color</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ASTM E 308 (Illumination D65, 10° observer)</td>
</tr>
</tbody>
</table>

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

This technical information is intended as a guideline only.

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