Windscreens and window tinting

Introduction

One of the important requirements for motor vehicles is that the driver must have the clearest possible view of the road particularly in poor lighting conditions at dusk, night or while driving in rain. Because of this there are requirements concerning the amount of deterioration allowed on windscreens and the use of tinted films on windows.

Is it time to replace that windscreen?

A windsreen should be replaced if it is severely chipped, cracked, abraded, badly scratched, discoloured or cannot be repaired to remove the fault.

The area of the windsreen in front of the driver extending across to the centreline of the vehicle is only allowed to have any two of the following defects:

- A hairline crack up to 30mm long
- A crack from edge up to 75mm long
- A “bullseye” crack up to 16mm diameter

If the windsreen has more extensive damage than that allowed above, your vehicle is likely to be rejected at the next Safety Check inspection. Note that the same criteria apply to windscreens after they have been repaired with a clear resin.
What types of replacement windscreens can be fitted?

All of the glass used in the passenger compartment of a vehicle must be an approved type of safety glass. Such glass always bears an identification mark indicating the standard to which the glass has been manufactured, for example AS2080, BS AU 178, JISR 3211 etc. One such mark is the approval symbol of the Standards Association of Australia:

![Image of Australian Standard 2080 mark]

Original glass (or genuine replacement glass) will always have a mark etched or indelibly printed on the glass.

There are two types of glass that are available for motor vehicles. These are classified as tempered or laminated.

- **Tempered glass** is specially treated so that, when it is broken, instead of forming dangerous jagged splinters, it breaks up into tiny square fragments. When a tempered windscreens is broken, it crazes and is sometimes difficult to see through. Modern vehicles with tempered windscreens have a toughened safety zone in front of the driver. The tempered zone stays relatively clear in the event of a breakage so that you can see sufficiently well to maintain control of the vehicle.

- **Laminated glass** is a ‘sandwich’ of glass on the outside surfaces and a clear plastic film in the middle; it is more resistant to breakage than tempered glass and, even when penetrated by an object, such as a stone, it will remain substantially clear.

Windscreens fitted to vehicles manufactured from 1 January 1994 are required by law to be made from laminated glass. Vehicles built prior to this date do not have to meet this requirement but it is strongly recommended that when a replacement windscreen is required, laminated glass is used.

What to remember when tinting vehicle windows

Reflective or mirror like tinted film is not acceptable as it may dazzle other drivers by reflecting sunlight or headlight beams.

Spray on type window tinting or finishes are also not acceptable.

A tinted or opaque band across the top of the windscreens is permitted providing it is no lower than 10% of the height of the windscreens & is above the portion of the windscreens swept by the wipers.

Windscreen manufacturers advise that windscreens filters out at least 98% of harmful UV rays. Manufacturers of window tint/film also advise that “medical grade” film (i.e. film used to protect people with skin conditions from UV rays) are clear and do not affect the windscreens visible light transmission (VLT)\(^{(1)}\). For these reasons, tinted film is not generally allowed on the main part of a windscreens.

\(^{(1)}\) Visible light transmission (VLT) is the measure of the amount of light that passes through glass. 35% VLT means 35% of the visible light passes through the glass and the rest of the light is blocked.
Passenger vehicles

Authorised Examiners at Authorised Inspection Stations (AIS, ‘pink slip’ stations) are required to check window tinting as part of the annual safety check inspection.

Tinted film that is damaged, bubbled, discoloured or that has deteriorated in any way that adversely affects the driver's view must be removed. Film residue (ie, left-over film adhesive etc.) must also be removed.

Rear vision mirrors must be fitted to both sides of a motor vehicle if the VLT of any side or rear window is less than 70%.

Since 1 August 1994, NSW law has required that newly tinted side and rear windows maintain a VLT of at least 35%. When replacing window tinting which provides less than 35% VLT (ie, tint applied prior to 1 August 1994), the new window tinting must provide at least 35% VLT.

Window tinting - passenger vehicles

Vehicles first registered:

- on or after 1 August 1994, minimum 35% VLT.
- before 1 August 1994, minimum 35% VLT unless a darker tint is already fitted.

Tinted or opaque band allowed at the top of the windsreen. It is not to extend below the portion swept by the wipers or 10% of the depth of the windsreen.

No film at all permitted on the lower part of the windsreen. Minimum 75% VLT.

Trucks, commercial vehicles and buses

The windows either side of the driver have the same window tint requirements as those for passenger vehicles.

Goods-carrying vehicles such as trucks and utilities are designed to be fitted with bodies to carry a load behind the driver while buses generally have long bodies and high rear windows. The type of vehicle construction reduces the need to see through the rear windows when driving. Therefore there is no minimum VLT for windows rearward of the driver on the following categories of vehicles:

- **Light goods vehicles (NA)**
  Gross vehicle mass not exceeding 3.5 tonnes.

- **Medium goods vehicle (NB)**
  Gross vehicle mass exceeding 3.5 tonnes but not exceeding 12.0 tonnes.

- **Heavy goods vehicle (NC)**
  Gross vehicle mass exceeding 12.0 tonnes.
• **Light omnibus (MD)**
  
  Gross vehicle mass not exceeding 5.0 tonnes, 10 or more seating positions.

• **Heavy omnibus (ME)**
  
  Gross vehicle mass exceeding 5.0 tonnes, 10 or more seating positions.

**Note:** NA, NB, NC, MD and ME are Australian Design Rules category vehicle codes stamped on the vehicle’s compliance plate. The compliance plate is a small aluminium plate normally found in the engine bay or about the front door pillars.

**Windows beside the driver must still have at least 35% VLT.**

---

**Window tinting - trucks, commercial vehicles and buses**

* Windscreen
  - No film at all allowed on the lower part of the windscreen. Minimum 75% VLT.
  - Tinted or opaque band allowed at the top of the windscreen. It is not to extend below the portion swept by the wipers or 10% of the depth of the windscreen.

* Windows either side of driver
  - Vehicles first registered:
    - on or after 1 August 1994, minimum 35% VLT.
    - before 1 August 1994, minimum 35% VLT unless a darker tint is already fitted.

* Windows rearward of driver
  - No minimum VLT specified for rear windows

---

**Further information:**

<table>
<thead>
<tr>
<th>Tel: 1300 137 302</th>
<th>Fax: (02) 9843 3821</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.rta.nsw.gov.au">www.rta.nsw.gov.au</a></td>
<td>Email: <a href="mailto:tech-eng@rta.nsw.gov.au">tech-eng@rta.nsw.gov.au</a></td>
</tr>
<tr>
<td>RTA Technical Enquiries</td>
<td>PO Box 1120 PARRAMATTA NSW 2124</td>
</tr>
</tbody>
</table>