



**COMMONWEALTH OF AUSTRALIA**

AUSTRALIAN DESIGN RULE 8  
FOR  
SAFETY GLASS

As Endorsed by the  
 Australian Transport Advisory Council

The intention of this Australian Design Rule is to specify the performance requirements of glass used for glazing in motor vehicles which will ensure adequate visibility under normal operating conditions, will minimise obscuration when shattered, and will minimise the likelihood of serious injury if an occupant comes in contact with the broken glass.

The Australian Transport Advisory Council has recommended to Commonwealth, State and Territory Governments that all motor vehicles specified below shall, wherever glass is used in windscreens, windows or interior partitions, be equipped with safety glass complying with Australian Design Rule 8 - Safety Glass.

VEHICLE CATEGORY	RULE AMENDMENT		
	MANUFACTURED ON OR AFTER		
	8		
Passenger Cars			
Forward Control Passenger Vehicles up to 8 seats	1 Jan 1985		
9 seats	1 Jan 1985		
Other Passenger Cars	1 July 1971		
Passenger Car Derivatives	1 July 1971		
Multi-Purpose Passenger Cars	1 July 1971		
Omnibuses up to 3.5 tonnes GVM			
up to 12 seats	1 July 1971		
over 12 seats	1 July 1971		
up to 4.5 tonnes GVM	1 July 1971		
over 4.5 tonnes GVM	1 July 1971		
Motorcycles	N/A		
Mopeds	N/A		
Specially Constructed Vehicles	1 July 1971		
Other Vehicles not listed above			
up to 4.5 tonnes GVM	1 July 1971		
over 4.5 tonnes GVM	1 July 1971		

N/A - Not Applicable  
 GROSS VEHICLE MASS - Abbreviated to 'GVM'

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8.1 Specification

- 8.1.1 All glass used for external or internal vehicle glazing shall have physical properties at least equivalent to the requirements of one or more of the following:
- (i) Australian Standard AS R1-1968 - Safety Glass for Land Transport, together with all amendments applicable as of November 1970
  - (ii) Australian Standard AS2080-1977 - Safety Glass for Vehicles
  - (iii) British Standards Institution - BS 857:1967 Specification for Safety Glass for Land Transport read with Amendments 1, 2, 3, 4
  - (iv) British Standards Institution - BS 5282:1975 Road Vehicle Safety Glass read with Amendments 1 and 2
  - (v) Economic Commission for Europe - Regulation No. 43 - Uniform provisions concerning approval of Safety Glazing and Glazing Materials for Installation on Power Driven Vehicles and their Trailers
  - (vi) British Standards Institution - BS AU178:1980 - Road Vehicle Safety Glass
  - (vii) Japanese Industrial Standard - JISR 3211-1979 Safety Glasses for Road Vehicles
  - (viii) American National Standard - ANSIZ26.1-1980 - Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways | \*
- 8.1.2 Notwithstanding the requirements of Clause 8.1.1 all glass used for glazing shall also satisfy the other particular requirements of this Design Rule.

8.2 Marking

- 8.2.1 All glass shall carry an approved indelible mark or marks visible when the glass is fitted in the vehicle.

\* Amended March 1985

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- 8.2.2 The approved mark shall identify the type of glass and the relevant standard to which the glass conforms.
- 8.2.3 For any windscreen glass having a zone of modified heat treatment, the marking shall indicate the position of any such zone.

8.3 Glass used for Windscreens

8.3.1 Definition of Eye Ellipses - The eye ellipses shall be the 95th percentile eye ellipses defined and positioned as in Recommended Practices SAE J941a - Passenger Car Driver's Eye Range August 1967; SAE J941b (February 1969); SAE J941c (June 1972); SAE J941d (February 1975); SAE J941e (March 1977); SAE J941 (March 1981) - Motor Vehicle Driver's Eye Range, or in ISO 4513 - 1978 (E) - Road Vehicles - Visibility - Method of establishment of eye ellipses for driver's eye location, suitably handed for right hand steering. \*

8.3.2 Primary Vision Area - The requirements for the primary vision area shall be as follows:

8.3.2.1 The primary vision area shall include the area of the windscreen between a plane tangential to the top of the eye ellipse, inclined 10 degrees above the horizontal measured parallel to the longitudinal axis of the vehicle, to a plane tangential to the bottom of the eye ellipse, which includes a horizontal line at ground level transverse to the longitudinal axis of the vehicle and 11 m from the rearmost eye position on the eye ellipse, measured horizontally and parallel to the longitudinal axis of the vehicle and between a vertical plane tangential to the outboard eye ellipse and inclined 15 degrees to the right, to a vertical plane tangential to the inboard eye ellipse and inclined 56 degrees to the left.

8.3.2.2 Notwithstanding the requirements of Clause 8.3.2.1 it shall be permissible to exclude from the primary vision area, any area of glass within 65 mm of the upper and lower edges of the glass and 90 mm of the side edges of the glass.

8.3.2.3 There shall be not less than 85% optical transmission below the plane defining the upper boundary of the primary vision area.

8.3.3 Modified Zone

The requirements for the modified zone shall be as follows:

8.3.3.1 The zone of modified heat treatment for toughened windscreens shall be not less than an ellipse, with a horizontal axis, and a minor axis in a vertical plane parallel to the longitudinal axis of the vehicle and passing through a point midway between the rearmost eye positions of the eye ellipses.

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- 8.3.3.2 The length of the major axis shall be at least 400 mm. The minor axis shall extend at least between planes tangential to the top and bottom of the eye ellipses and inclined at 3 degrees downwards from the horizontal.
- 8.3.3.3 Where the location of the zone as determined by Clauses 8.3.3.1 and 8.3.3.2 would cause the outline of the zone to encroach within 100 mm of the edge of the glass, the zone size should be maintained but moved bodily so that the minimum distance of 100 mm is maintained.

