



TINTING OF NAVIGATIONAL SPACE WINDOWS

Application

This equivalent solution applies to vessels of measured length less than 45 m that are subject to compliance with the Uniform Shipping Laws Code Section 5C Clause 73.3 and Section 5D Clause 36.3 and provides the use of tinted glass in the navigational space windows on a vessel.

NOTE: Tinting of navigational space windows is not permitted on vessels of length 45 metres and more constructed after July 1998, refer to SOLAS Chapter V, Regulation 22.

Requirement

The Uniform Shipping Laws Code prohibits tinting on all navigational space windows. Navigational space windows have an important function in the safety of the vessel. Modern design styling and the more frequent use of air conditioners on vessels have increased the demand for flexibility in this requirement. This equivalent solution provides for the limited use of tinted glazing materials in the navigational space of the vessel without reducing the vessel's safety.

Required Outcomes

Ergonomic Design

The design and layout of the navigational space must permit persons operating the vessel to perform their duties in a correct manner without unreasonable difficulty, fatigue or concentration.

Avoidance of collisions

Glazing materials in navigational space windows must be manufactured and arranged to facilitate crewmembers operating the vessel complying with the International Regulations for the Prevention of Collisions at Sea.

Navigational functions

Glazing materials in navigational space windows must be manufactured and arranged to facilitate the functions needed to safely navigate the vessel, including where appropriate, the ability to use leading marks astern of the vessel for track monitoring.

Equivalent solution and guidance

Assessment

Equivalent solutions are considered on a case-by-case basis. A submission should be prepared prior to construction.

Limitations on the use of tinted windows

Glazing material should be clear (i.e. not tinted) in windows used for the safe navigation of the vessel by a person at a helm position in the forward facing sector defined by:

- the horizontal arc from directly forward to 112.5° on the starboard side; and
- the horizontal arc from directly forward to 112.5° on the port side, see Figure 1.

NOTE: The tinted sector corresponds to the field of view where an approaching vessel is considered to be overtaking. Note that vessels may be required to give way to other vessels approaching from the port side; e.g. sailing vessels and vessels engaged in fishing.

Continued overleaf

Equivalent solution and guidance (continued)**Minimum light transmission of tinted glazing materials**

Glazing material used in navigational space windows that are used for the safe navigation of the vessel by a person at a helm position should have a light transmission of not less than 70% as determined by the appropriate test in AS/NZS 2080.

Colour of tinted glazing materials

The tint of glazing materials used in navigational space windows should not interfere with the recognition of the colour of lights seen through the tinted glass.

NOTE: Typically, grey tints are the most suitable tints to fulfil this criterion.

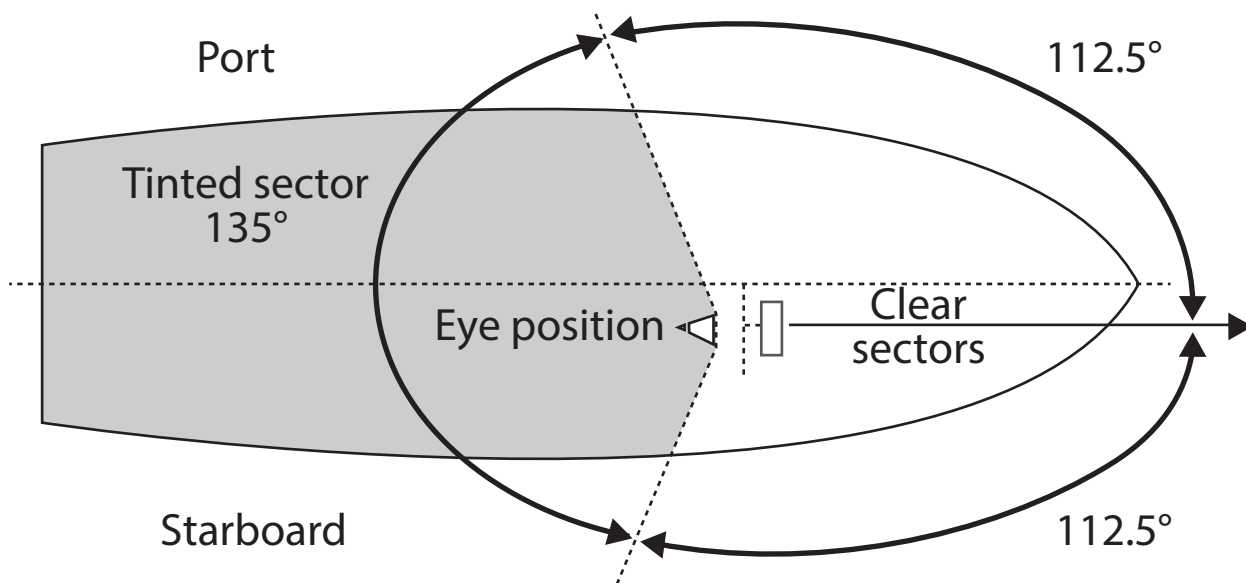


Figure 1 - Permitted sector for tinted navigational space windows

REFERENCES

Standards Australia: AS/NZS 2080 Safety Glass for Land Vehicles

ENDORSEMENT

This equivalent solution was endorsed by the following Australian jurisdictions: Commonwealth, New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria, Western Australia.