

VISUAL QUALITY STANDARDS

Automotive Window Film

GUIDELINES

Adopted by the Window Film Association of Australia and New Zealand (WFAANZ), these visual quality standards cover applied window film on automotive glass. Installed film on these surfaces is not expected to have the same visual quality as glass. The following covers a 'standard' installation, which assumes: the film is applied to glass that is devoid of defect; an internal installation; and the vehicle is relatively clean and dust free. Inspections shall be carried out in natural daylight (not indoors), and each window shall be inspected separately and for no longer than 30 seconds each.

Stages of inspection

The inspection will initially be conducted from the outside of the vehicle at a distance of one (1) meter, perpendicular to the glass, with the window in the fully closed (up) position. Then the window shall be lowered to inspect the edge. Then the window shall be raised to the fully closed position and inspected internally for visible distortion.

Cure time

Installed film takes a certain amount of time to achieve full adhesion, a process known as 'dry out time' or 'cure time'. This is because a surfactant or slip agent solution in water is used to float the film onto the glass during its installation.

The time it takes for the film to fully cure can relate to the thickness of the film, the materials used in its construction, and climatic and vehicle storage conditions.

Inspection for visual quality can be made before full cure is attained. However, observations of issues like water distortion, moisture bubbles and water haze that are made during this time can be a consequence of the film's normal drying process and should not be classified as defects.

Inclusions

Due to the difficulty of automotive film installations, particularly on older vehicles, some inclusions are acceptable. An 'inclusion' may be dirt or dust particles, hair, fibres, fingerprints, etc. An installation is deemed to be not acceptable if five (5) inclusions larger than 2mm in size are within a 100mm radius of any section of the glass, and are visible when viewed under the inspection parameters mentioned above.

Any spears, creases, scratches or tears are unacceptable.

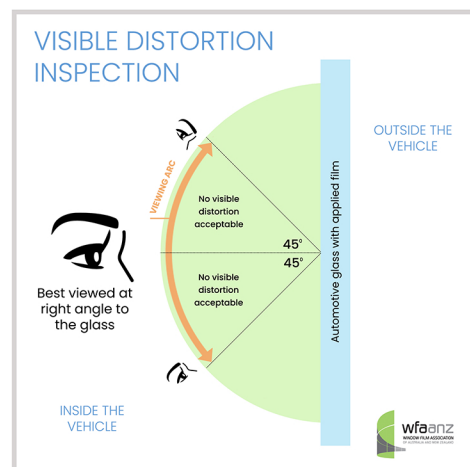
Edges

Following external inspection, the window shall be lowered to view the top edge of the glass. The top cut film edge shall be neat and have a consistent gap from edge. Gaps around perimeter edges must be uniform. Film is to be trimmed neatly around slider/flipper clips with a maximum visible gap of 2mm. All edges to be clean and lie flat on glass with no puckering.

Visible distortion

After the film has fully cured there should be no visible distortion when viewed from the inside to the outside through the glass/film combination, from perpendicular up to an angle of 45°.

The diagram right depicts the optimal viewing arc when inspecting inside the vehicle for visible distortion, and the viewing angles at which distortion is acceptable and unacceptable.



Light reflections

A few small particles or points causing light reflections may be visible both externally and internally. These are inherent in film adhesives and have no detrimental effect on the film's performance, nor do they constitute an installation or product quality fault.



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