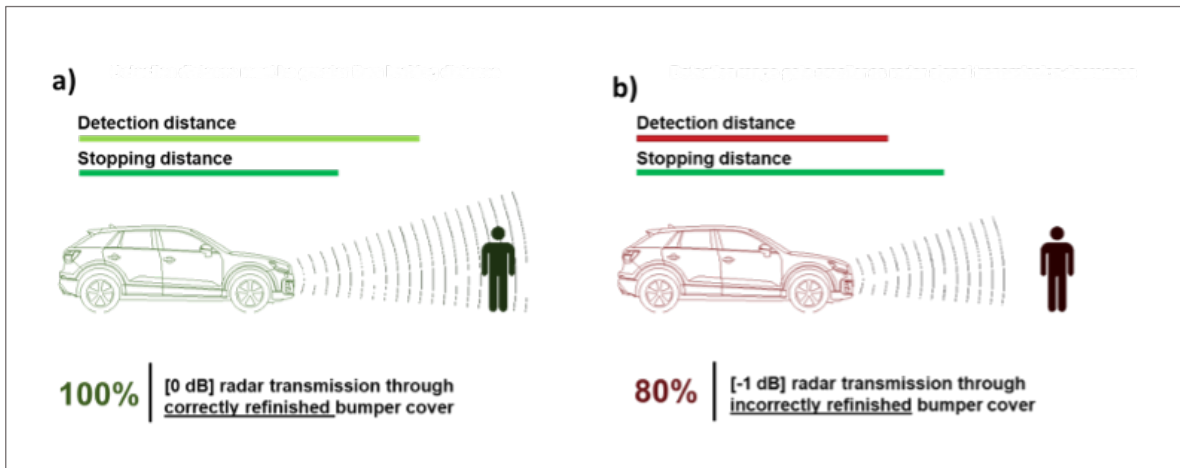


Advanced Driver Assistance Systems (ADAS) – Radar Compliant Paint

Coating types can affect ADAS differently. Coatings that contain high concentrations of aluminum can cause decreased RADAR signal transmission, adversely affecting ADAS operation. When the RADAR signal is blocked by a coating, the ability to accurately detect objects can be affected. In addition to reducing the aluminum concentration for RADAR compliance, coating layers need to be as thin as possible, to avoid unnecessary signal loss.



In this schematic of RADAR detection and braking distance, scenario a) shows how the correctly refinished bumper cover transmits enough signal to allow for the pedestrian to be detected in time to brake. In scenario b), the detection distance is reduced because of signal loss caused by an incorrect repair, resulting in a potential impact/collision.

ADAS is not affected in the same way for all colours. Solid and pearl colours, as well as low concentrated aluminum colours are generally acceptable, depending on OEM specifications. Therefore, the majority of colours will allow RADAR signals to pass with minor loss without further optimization. However, high concentrations of any aluminum flake, especially densely packed fine aluminums, represent the greatest impact on RADAR.

For colours where the RADAR transmission loss exceeds the threshold set by the vehicle manufacturer, Axalta may be able to create a RADAR Compliant Colour Formula, that will not affect the RADAR system. This may be accomplished by decreasing the aluminum content or using alternate toners. Adjustments required for creating a RADAR Compliant Colour Formula, however, may result in a different colour position. For example, the standard formula of a colour might be a better match than the RADAR Compliant Colour Formula, however, use of the standard colour formula is not acceptable due to potentially poor RADAR performance. In these rare cases, where a RADAR Optimized Formula must be developed, a new variant will be shown for this colour code (ALT **RC**) in the colour program.

A separate technical bulletin will be issued shortly regarding **radar approved paint formulations and their inclusion in Axalta colour programs.**

Should you wish to discuss this matter further, please contact Jim Iliopoulos, Product & Technical Manager ANZ on 0412793910.

TD 6073 V1 1123

Axalta Coating Systems Australia
16 Darling Street
Marsden Park NSW 2765
T: 1800 292 582

www.axalta.com.au

