

A starting guide: Meeting OEM requirements for paint.

Proper repair planning on the paint side.



In the ever-evolving world of automotive repair, meeting OEM requirements for paint has become increasingly critical, particularly with the rise of advanced driver-assistance systems (ADAS) and radar technologies. Mil thickness requirements are at the forefront of these considerations, especially in areas close to sensors or across entire panels. As technology advances, the precision of paint application becomes crucial, not only for aesthetic purposes but also for functional integrity.

Understanding Mil Thickness and Its Implications

Mil thickness refers to the thickness of the paint layer applied to a vehicle. OEMs have established specific requirements for mil thickness, which are crucial for ensuring that sensors and radar systems function correctly. These requirements are often detailed in position statements and technical bulletins, specifying maximum mil thickness and indicating which colors are permissible with specific paint lines. These documents are typically provided separately: one detailing the required thicknesses and another listing colors that affect radar sensitivity.

After reassembling ADAS-equipped vehicles, they typically undergo calibration. If a vehicle fails to calibrate, it may be due to not meeting these OEM paint requirements, which could result in liability issues for the shop and compromise customer safety. Therefore, adhering to these guidelines is not just a matter of compliance but also a critical safety measure.

Navigating Radar-Sensitive Paint Formulas

The toners used in some paint lines can block or affect long-range radar. Fortunately, some paint companies' mixing software is designed to alert technicians if these toners are present in a color formula. When a color code is inputted, the system may prompt the user to confirm if they are working on a radar-sensitive vehicle. If so, it will provide a radar-safe formula, which typically means the color cannot be tinted. In such cases, performing a spray-out for a visual sample is recommended to determine if blending into surrounding panels is required.



However, challenges arise when a radar-safe formula is not available in a particular paint line. This situation may necessitate subletting the job to another shop or ordering paint from a different line that meets OEM requirements, potentially incurring additional costs and delays.

Adhering to Manufacturer Position Statements

Position statements from manufacturers also outline non-repairable areas, specifying parts of the vehicle that cannot be repaired or repainted. For example, certain areas of the bumper may be deemed non-repairable, or in some cases, the entire bumper cannot be repaired at all. Ignoring these guidelines could lead to significant liability issues. Additionally, some vehicles have specific callouts regarding how many times a particular part can be painted. If a bumper is painted and the color does not match adjacent panels, it cannot simply be sanded and repainted. Instead, a brand-new part must be used, incurring additional costs for the shop, which likely will not be compensated for the time, parts, and materials used in the second attempt.

The Importance of Proper Repair Planning

Proper repair planning is essential for meeting OEM requirements, even on the paint side. It is crucial to check these requirements for every single paint job, as guidelines can change on a weekly or monthly basis. Mil thickness must be meticulously checked on every vehicle both before and after painting to ensure compliance. Every shop should be equipped with both ferrous and non-ferrous mil thickness gauges to accurately measure these specifications.

Standard Operating Procedures (SOPs) are also key because there is often only one opportunity to get it right. Any deviation or error could result in failing to meet OEM requirements. In some cases, repainting may not be an option, which could result in purchasing a new part at the shop's expense. Adhering to these practices can help ensure quality, compliance, and cost-efficiency in the long run.

As the automotive industry continues to advance, the demands on painting techniques and equipment become more stringent. Achieving compliance with OEM paint requirements is not just about meeting standards; it is about ensuring the safety and functionality of modern vehicles. By understanding and adhering to these complex requirements, shops can protect themselves from liability, ensure customer safety, and maintain their reputation for quality and precision.