

What Is The Appropriate Body Filler?



osmetic repair today has many options for repair materials. During the collision repair process, a technician is faced with what is the appropriate body filler. Let's look at what different types of body filler are available and their characteristics.

Many different options of body filler have been introduced over the years. These include lightweight polyester body fillers, polyester glazing putty, fiberglass-reinforced body fillers, metal body fillers, sprayable polyester body fillers, and specialty body fillers. *Lightweight polyester body fillers* are the most commonly used cosmetic repair material for non-plastic repairs. Body filler makers have many options from general purpose to premium performance products. Sanding characteristics, fill, spreadability, acceptable substrates, and work time are some of the differences between tiers of fillers.

Polyester glazing putty is thin-bodied polyester body filler designed for minor filling, filling pinholes, and skim coating. These body fillers sand easier with finer grit sandpaper. Some can even be applied over cured paint that has been prepared properly according to the product maker TDS.

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TECHNICAL REPORT

Fiberglass-reinforced body fillers are polyester body fillers with either short or long fiberglass strands for added strength. It is most commonly used over weld seams or for repairing sheet-molded compound (SMC) or fiberglass. Most are waterproof; however, this should be confirmed with product-specific technical data sheets (TDS). Fiberglass-reinforced body fillers should be finished with a body filler or polyester glazing putty before applying primer.

Metal body fillers add aluminum to the body filler to increase strength, durability, and resistance to water. Some metal body fillers allow drilling and tapping. Some OEMs require this type of product for welded seams. A key difference for this body filler is the use of a liquid hardener instead of a cream hardener.

Sprayable polyester body filler is a thin polyester body filler that allows for the application by a largetipped spray gun. Sprayable polyester body filler enables a high film-build and uniform surface over large repair areas. When using sprayable polyester body filler, always refer to the TDS for proper mixing and application recommendations.

Specialty body fillers are created to solve specific problems. These body fillers offer certain characteristics such as flexibility, increased strength, faster cure times, or better adhesion to specific substrates. Some examples of specialty body fillers include flexible polyester body filler for plastics, carbon fiber-reinforced filler for SMC and fiberglass, and 1K spot putty for fast filling of pinholes prior to refinishing.

Some unique body fillers products have come to market including color-changing body fillers, UV-cured body fillers, and slow cream hardener. These products aid in achieving optimal results. Utilizing a color-changing body filler ensures the body filler is ready to sand. Using a slow cream hardener enables a shop to be more efficient in hot weather and on larger repairs. Proper preparation is required for the body filler to adhere to steel, aluminum, fiberglass, SMC, and OEM paint (where allowed). Many body fillers can be applied over epoxy primer, but compatibility must be confirmed by the paint maker and specific OEM recommendations should also be considered.

Always reference the TDS for product-specific recommendations. To achieve optimal results when using body fillers:

- Check expiration dates of body filler and the hardener.
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- Use the same brand of hardener and body filler. Clean.
- Featheredge the repair area out far enough.
- Apply within the substrate temperature range.
- Use accurate mixing ratios which could be done by weight or using a system that mixes the two together inside a nozzle.
- When mixing, fold the body filler, do not stir.
- Apply multiple thin layers vs. one thick coat of body filler.
- Do not exceed the maximum body filler thickness (after sanding).

Body fillers can seem trivial, however improper application may cause rework in the future. Before starting a repair, always refer to the body filler TDS, and paint maker TDS, and OEM recommendations.

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Automotive & Light Industrial





OEM ADAS Radar Optimised Colour References: Mercedes-Benz



hanges in advanced driver assistance systems (ADAS) radar technology are introducing new refinishing considerations. Paint film thickness not only may affect the performance of ADAS radars, color formula selection may also be a contributing factor. What resources do repairers have available? Let's see what Mercedes-Benz has to say.

Mercedes-Benz provides an Information On Painting Bumpers With Radar Sensors document which has precautions pertaining to factory colors approved for refinishing operations. This document has a list of paint codes which are approved for refinishing bumper covers. This document is found under: 98 Paintwork – General Notes: Passenger Cars: Paintwork – Information On Painting Bumpers With Radar Sensors.

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Mercedes-Benz states:

- "The new, primed bumper can only be painted once with base coat and clearcoat for non-approved paints on vehicles with code 233 (Autonomous Intelligent Cruise Control Plus (Distance Plus))"
- "The new, primed bumper may only be painted once with base coat and clearcoat on vehicles with code Z01 (Special paintwork) or code Z98 (Painting outside of paint chart) and code 233 (Autonomous Intelligent Cruise Control Plus (DISTRONIC PLUS)), code 234 (Blind Spot Assist) or code 507 (Remote-controlled Parking Premium)"
- "The diagnosis radar beam damping must be performed using the XENTRY diagnostic system after the bumper is painted on vehicles with code 233 (Autonomous Intelligent Cruise Control Plus (DISTRONIC PLUS))."

Improper color selection may cause ADAS to malfunction and potentially fail. Check OEM repair information to identify what restrictions may apply to the repairs you are considering. Always verify that the ADAS is functioning properly after completing repairs.

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