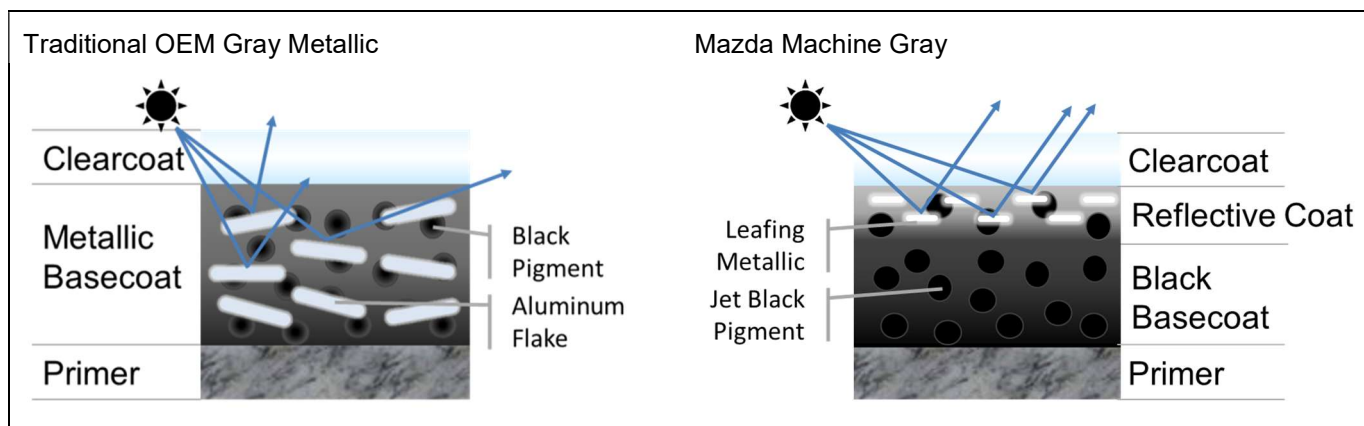


# Basecoat WB Repair Process Mazda 46G Machine Gray

## Description of Mazda 46G Machine Gray

Machine Grey 46G is one of Mazda's state of the art finishes designed to complement Kodo design using its Takuminuri paint technology. Mazda says that *"This color gives the impression that the vehicle's body has been sculpted from a solid steel ingot"*

## Technology of This Effect Color



Mazda describes this technology as a reflective layer applied over a blemish free panel with extremely thin, high brightness aluminum flakes.

These bright aluminum flakes lay down extraordinarily flat and are what is referred to as a leafing metallic. Because of the small size of the flakes there is a very thin coating created that is 66% thinner than a normal base coat. The thin coating produces a dense layer of the flakes on the painted surface making for a special sheen and metal like appearance. In the case of Mazda 46G Machine Gray, a jet-black pigment is used in both the foundation color and the mid-coat layer creating a black-gray shade in areas between flakes with a light-dark contrast between light and shadow areas.

## Repair Process – Mazda 46G Machine Gray

Due to the very small size of the metallic and the need for proper leafing of the flake to achieve the required appearance, special care must be taken in the preparation for and application of this color.

The recommended preparation of the substrate with this 46G color is mandatory. The substrate has to be flat and smooth, any texture and/or scratches that are too coarse in the repair or blending area will be visible after clearcoat application, especially with blending color into to the OEM finish.

Therefore, to avoid poor orientation of the fine metallic, the use of a fine sanding grit as described is of upmost importance for the preparation of the substrate.

# Basecoat WB Repair Process Mazda 46G Machine Gray



## Mazda 46G Spraygun Selection

- Due to the fine texture of the metallic flake in Mazda 46G a smaller tip is recommended for application.
  - Less fluid and smaller tips generally provide the finest effect results.
  - 1.3mm HVLP or 1.2mm compliant sprayguns are suggested for the best results. If these are not available, you may achieve suitable results by turning fluid adjustment in 1-½ to 2 turns.
  - More fluid and larger tip sizes produce a courser effect appearance.



## Color Check Panels

- The coarseness and effect may differ due to different models/production locations, and therefore it is important to produce a set of 4 sprayout panels.
- Make 4 sprayout panels with black or dark grey primer sanded to a minimum of P1000 grit dry.
- Place the prepared sprayout panels next to each other so they can be sprayed together all at once.



## Color Check Panels, Application

**Note:** Ensure that you use the same application technique as you will on the repair for these panels.

1. Apply Basecoat WB MAZ46G mixed 100:10 according to TDS on all four of the prepared test panels including a final mist-coat.
  - Remove and mark as #1.
  - Add 200% of WB Activator to the applied Basecoat WB MAZ46G (100:10 mixture) color and apply as explained below.
2. Apply the over-thinned mixture as a standard drop-coat application on the remaining 3 panels with increased spraygun distance during application.
  - Remove one panel and mark it as #2.
3. Apply the over-thinned mixture again as a standard drop-coat application on the remaining 2 panels with increased spraygun distance during application.
  - Remove one panel and mark it as #3.
4. Apply the over-thinned mixture again as a standard drop-coat application on the remaining panels with increased spraygun distance during application.
  - Remove the panel and mark it as #4.

To mimic the OEM color and effect the following steps are mandatory to meet the appearance of the original car color.

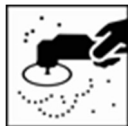


## Primer Application

- Primer color is important for the correct appearance.
- Apply Primer-Pro or Primer-Pro LV Black (B) or Dark Grey (GB) surfacer as per TDS.

# Basecoat WB Repair Process

## Mazda 46G Machine Gray

**Primer, Repair Preparation**

- Remove any texture from applied primer by sanding the filler with P500-600 dry.
- Further sand with P800 grit dry ending with P1000-1200 dry.

**Blend Area, Repair Preparation**

- Sand blend area removing texture with P1000-P1200 grit dry.
- Further sand with P1500 grit dry to remove scratches.
  - Edges or touch up scuffing should be done with a gold scuff pad.

**Surface Cleaning**

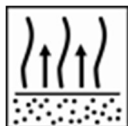
- Remove any surface contamination using an appropriate surface cleaner.

**Mixing – Blend Area Pre-Coat****Mix**

- |            |                      |
|------------|----------------------|
| <b>100</b> | parts Basecoat WB 02 |
| <b>10</b>  | parts WB Activator   |

**Pre-Coat Application**

- Apply one flowing coat of Basecoat WB 02 mixture to the entire repair area.

**Flash-Dry**

- Using accelerated air flow flash off 5 minutes or until completely dry.

**Mixing – Mazda 46G Color**

- |            |                             |
|------------|-----------------------------|
| <b>100</b> | parts Basecoat WB Mazda 46G |
| <b>10</b>  | parts WB Activator          |

**Note:** Due to the low viscosity of this color, it is important to shake gently between each application to avoid settling.

**Spray-Gun Set-Up:**

- 1.3mm HVLP Gravity
- 1.2mm Compliant Gravity

**Application Air Pressure:**

- HVLP – Use pressure 10-15% lower than maximum allowed by manufacturer.
- Consult manufacturers' specifications.

**Application, Foundation Color**

- Apply 2 medium wet coats followed by an orientation coat.

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# Basecoat WB Repair Process

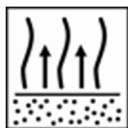
## Mazda 46G Machine Gray

System

10/16/18

TSB# L18.02

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**Flash-Dry, Between Coats**

- Using accelerated air flow flash off 5 minutes or until completely matte in appearance.

**Flash-Dry Before Effect Coat**

- Flash 15-20 minutes before the application of the effect coat.



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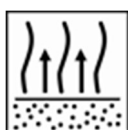
**Mixing – Mazda 46G Color, Effect Application**

- 100** parts Basecoat WB Mazda 46G (100:10 mixture)  
**200** parts WB Activator

**Note:** Due to the low viscosity of this color, it is important to shake gently between each application to avoid settling.

**Application, Effect Coats**

- Apply 1-3 drop coats.
  - Increase the distance of the gun to the panel by 3-4 inches.
  - Do not reduce pressure when applying the over-thinned effect layers.
  - For larger repair areas, apply the effect layers using cross-coat method.
  - Do not over wet the application.

**Flash-Dry, Between Coats**

- Using accelerated air flow flash off 5 minutes or until completely matte in appearance.

**Flash-Dry Before Clear Coat**

- Flash 15-20 minutes before the application of the effect coat.

**Clearcoat Application**

- Apply any Lesonal clearcoat approved for use over Basecoat WB.
- Apply the first coat of clear as a thin closed coat, do not apply too wet.
  - Over application of this first coat may cause strike-in of the effect layer causing the fine metallic to move.
- Ensure adequate flash off before the application of the second coat of clear.