

Autowave Optima MAZ46G Machine Grey

FOR PROFESSIONAL USE ONLY

Definition and description



Machine Grey 46G is one of Mazda's state of the art finishes to compliment Kodo design using its Takuminuri paint technology. The repair of this color is based on the standard 2 stage TDS application with an additional 2-3 over thinned basecoat layers, this to achieve it's specific fine effect and finish of this particular color.

The description of this color by Mazda is:

"This color gives the impression that the vehicle's body has been sculpted from a solid steel ingot"

The following steps are mandatory to meet the appearance of the original car color:

Preparation of the substrate before Basecoat color application

The preparation of this particular color with it's fine metallic is of utmost importance.

To avoid the visibility of disoriented fine metallic, sanding the blending areas with fine grit P1500 or P2000 is mandatory.

Application over sanded (Dark Grey / Black) filler:

Remove any texture by sanding the filler with P500/P600 followed by P1000 as a minimum, degrease and proceed with the application of the 46G color.

Preparation of the blending area on the original clearcoat:

Remove any texture by sanding the original clearcoat with P1200 and finish with P1500 as a minimum.

Surface preparation

Filler area



Final sanding step P1000

- o Initial sanding steps may be executed with a coarser sanding grit (P500 – P600)
- o Remove (orange peel) structure of the filler

Wet bed preparation blending area



Final sanding step P1500

- o Initial sanding steps may be executed with a coarser sanding grit (P1000 or P1200)
- o Remove (orange peel) texture of the OEM clearcoat

Surface cleaning

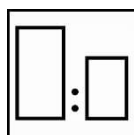


Remove any surface contamination using an appropriate surface cleaner.

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Autowave Optima MM MAZ46G mixing and application



100 Autowave Optima MM

10-20 Autowave Optima WB Activator (*stir thoroughly*)



Use Sikkens measuring stick

14 Blue



Spray gun set-up:

1.2 mm - 1.3 mm

Application pressure @ spray gun air inlet:

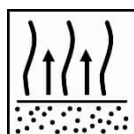
1.7-2.2 bar



Application metallic color:

1 + 0.5 coats

No flash-off between coats

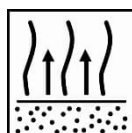


Flash-off until completely matt and dry



Apply 1 x 1 drop/orientation coat

1.3-1.5 bar (*reduce air pressure*)



Before application of overthinned, finer effect layers:

Until completely matt and dry

Prior to clearcoat application:

Until completely matt and dry

Extend flash-off time minimum 15 minutes at 25°C before fine effect application

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Correct color match needs to be determined by producing a number of color spray-out samples.

The coarseness and effect may differ due to different models/production locations, and therefore we advise to produce a set of 4 sprayout panels applied over a SGS5/CBP505 filler sanded with a minimum of P1000 grit

Application:

Place the 4 sprayout panels next to each other:

1st, Apply Autowave Optima MM MAZ46G according to TDS on all panels including a final drop-coat.
Remove and store 1 panel marked as number 1.

2nd, Add 200% of ***WB Plus Activator** to the applied Autowave Optima MM MAZ46G (100:10-20 mixture) mixed color and apply as explained below.

Apply the overthinned mixture as a standard drop coat application over the remaining 3 panels with an increased distance during application.

Remove 1 panel and mark it as number 2

3rd, Apply the overthinned mixture as a standard drop coat application over the remaining 2 panels with an increased distance during application.

Remove 1 panel and mark it as number 3

4th, Apply the overthinned mixture as a standard drop coat application over the remaining panel with an increased distance during application.

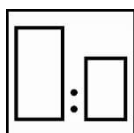
Remove the panel and mark it as number 4

* Only use **WB Plus Activator** when adding 200% for overthinned mixture.

Note: Ensure to use the same application technique on the vehicle!

After the final drop coat / control coat leave the basecoat to flash off completely, extend (double) the flash-off time or increase the temperature and allow to cool down before applying the clearcoat.

Autowave Optima MM Mazda 46G finer effect: Mixing and application



100 Autowave Optima MM MAZ46G RTS

200 Autowave Optima **WB Plus Activator** (*stir thoroughly*)

Note: The use of WB Plus Activator is required in the 200% overthinned coats to achieve the desired effect.

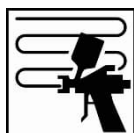


Use Sikkens measuring stick
Or use scale



Spray gun set-up:
1.2mm - 1.3 mm

Application pressure @ spray gun air inlet:
1.7-2.2 bar (*increase air pressure*)

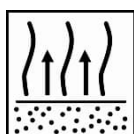


Application finer effect layers*

1-3 drop coats*

*Increase distance during application, apply coats in an even layer taking care not to overapply

*Due to the low viscosity, shake spraygun prior to application of the next coat

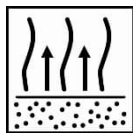


Between coats:

Until completely matt and dry

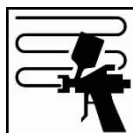
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Before clearcoat application

Extend (double) the final flash-off time 30 minutes at 25°C is recommended before Clearcoat application
o Option 2; Allow 15-20 minutes final flash-off time at 40°C
o Option 3; Allow 10-15 minutes final flash-off time at 60°C
o When heat is used for drying allow object to cool down to application temperature before applying clearcoat, these times can also be reduced by increased air flow
Recoat time: Maximum 24 hours at 20°C
Should this maximum time be exceeded, abrade the surface and apply another coat.



Clearcoat application

See clearcoat T.D.S.

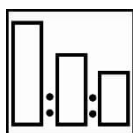
With the application of the clearcoat, apply a thin closed 1st layer before applying a full coat.



Use suitable respiratory protection

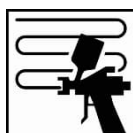
Akzo Nobel Car Refinishes recommends the use of a fresh air supply respirator.

Autowave Optima Wet Bed: Mixing



- | | |
|-------|---|
| 60 | Autowave Optima Blending Agent |
| 40 | Autowave Optima C063 (<i>stir thoroughly</i>) |
| 10-20 | Autowave Optima WB Activator (<i>stir thoroughly</i>) |

Autowave Optima Wet Bed: Application / Blending

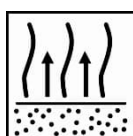


Wet Bed

1 full flowing coat to blend area
No flash-off prior to basecoat application

Autowave Optima MM MAZ46G RTS

1 + 0.5 Coats
No flash-off between coats

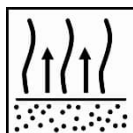


Before drop/orientation coat:

Until completely matt and dry

Before Ovethinned 200% layers:

Until completely matt and dry



Between coats:

Until completely matt and dry

Prior to clearcoat application:

Extend flash-off, ensure completely dry

For more blending process information refer to TDS S8.01.10 Autowave MM Optima Blending Process

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Useful tips:

Preparation:

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

Therefore: to avoid disorientation of the fine metallic, the use of a fine sanding grit as described is of utmost importance for the preparation of the substrate

Preparation filler substrate: abrade with a minimum grit of P1000 and ensure to remove all texture.

It is advised to apply a wet bed (pre-coat) over the prepared blending area of the OEM clearcoat, abrade blending area with P1500 minimum and ensure that all texture of the OEM clear-coat is removed, after removing dust and degreasing the substrate, apply one smooth closed flowing layer Autowave Optima Wet Bed as described.

Application in general:

- After completing the 1 + 0.5 coat application, allow it to flash-off fully.
- Each subsequent basecoat layer, including drop/orientation coat and any over-thinned effect layers, must be allowed to flash off completely before applying the next layer.
- When using accelerated air systems ensure a **minimum distance** of 1 meter from the object.
- Blending into a wet bed is only required within the initial 1 + 0.5 coat blend area. Drop/orientation coat and effect coats are applied into a dry surface, being dried inbetween coats.
- Only reduce the air pressure to the recommended setting when applying the drop/orientation coat (*standard layer*)
- Do not reduce pressure when applying the drop/orientation coat over-thinned 200% effect layers.
- Always use WB Plus activator for overthinned 200% layers
- Apply the effect layers in cross coat application on larger areas.
- Extend flash-off time or increase heat and allow cool down before clearcoat application.
- Do not apply the first clearcoat layer too heavy.

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