

Autowave[®] MM Optima – 3 Stage Process

Description

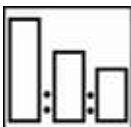
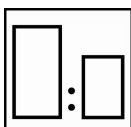
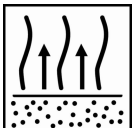
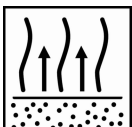
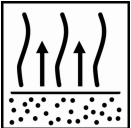
The Autowave MM Optima is a comprehensive, one-stop, waterborne basecoat application system known for its excellent hiding properties. It facilitates the application of all basecoat layers using a wet-on-wet technique, without flash-off between coats.

An Autowave Optima three stage systems consists of three separate applied layers creating a special color effect.

1st step: Application of the solid or metallic Autowave Optima ground coat – layer 1

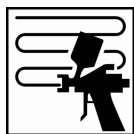
2nd step: Application of the Autowave Optima transparent, solid, metallic or pearl effect coat – layer 2

3rd step: Application of the clearcoat to provide gloss and protection

	P500 P600	Priming Filler area Repair area		P1000	Blending area OEM finish
	Surface cleaning	Clean the surface to paint thoroughly removing all surface contamination using an appropriate cleaner			
	100 5 0-30	Autowave MM Optima Ground Coat (Layer 1) Autowave Optima Hardener WB (<i>stir thoroughly</i>) Activator WB (<i>stir thoroughly</i>)			
	100 0-30	Autowave MM Optima Effect Coat (Layer 2) Activator WB (<i>stir thoroughly</i>)			
	Spray gun set-up: 1.2-1.3 mm 1.4 HT/LH*		Application pressure: at spray-gun air inlet 1.7-2.0 bar HVLP at the air cap 0.6-0.7 bar		
*Select a wider set-up at low humidity and higher temperatures for optimal application					
	Layer 1 1 full flowing coat No flash-off between coats		Flash-off until completely matt and dry Extend flash-off time minimum 15 minutes at 25°C before layer 2 application		
	Layer 2 1 + 0.5 coats No flash-off between coats		Until completely matt and dry		
	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.				

Read the complete Technical Bulletin and the product Safety Data Sheet (SDS) for detailed product information.

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Sikkens clearcoats

As per Autowave MM Optima TDS
S1.09.07

Color check by spray out samples

Correct color match needs to be determined by producing a color spray-out samples, using the correct variant for the vehicle being repaired.

The color may also change dependent on the number of coats applied of the effect color, a maximum of 1 + 0.5 + 0.5 coats can be applied.

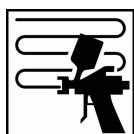
With Autowave Optima Proceed as follow:

- o Apply the layer 1 color until opacity is achieved 1 + 0.5 coat on 2 different spray-out panels
- o Next apply one single coat of the layer 2 color to all panels
- o Without flash-off time apply 0.5 coat to one panel and then apply an additional 0.5 coat to the other panel
- o Allow for a 10-15 minutes flash-off time at (25°C) prior to clearcoat application
- o Apply two single layers of clearcoat to all color spray-out panels, securing brightness and color depth.

The operator can determine the right color match by using these color samples.

- Number each panel, indicating the number of effect coats on the panel.
- Personal application differences makes it recommended that each painter creates their own spray-outs.
- To obtain an accurate color match, spray the panels as if applying to a vehicle, i.e. place all spray-outs on one larger panel and spray complete panel for each coat. DO NOT SPRAY EACH PANEL SEPARATELY.

Autowave MM Optima Layer 1 color application



Solid layer 1 color application

First, apply the color to the blend area of the repair with a 15-20 cm panel distance, using an outside-in blending technique creating a smooth color transition.

Proceed directly by applying an even flowing wet coat (80% opacity) over the complete repair area and into the wet first coat. Apply at an 15-20 cm spray-gun distance.
Ensure to close the edge between this coat and the first coat.

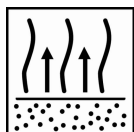
Continue application of the final coat, an intermediate coat without any flash-off, reaching full opacity over the repair area, and into the first coat blend area, ensure to stay within the first coat blend area.
Apply at an 15-20 cm spray-gun distance from the surface.

Metallic and effect 1 color application

First, apply the color to the blend area of the repair with a 20-30 cm panel distance, using an outside-in blending technique creating a smooth color transition.

Proceed directly by applying an even flowing wet coat (80% opacity) over the complete repair area and into the wet first coat. Apply at an 15-20 cm spray-gun distance.
Ensure to close the edge between this coat and the first coat.

Continue application of the final coat, an intermediate coat without any flash-off, reaching full opacity over the repair area, and into the first coat blend area, ensure to stay within the first coat blend area.
Apply at an 20-30 cm spray-gun distance from the surface.



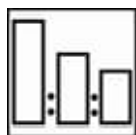
Flash-off

Allow the basecoat to flash-off until completely matt and dry before Wet-Bed application

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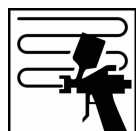
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Autowave Optima Wet Bed: Mixing



- 60 Autowave Optima Blending Agent
- 40 Autowave Optima C063 (*stir thoroughly*)
- 0-30 Autowave Optima WB Activator (*stir thoroughly*)

Autowave MM Optima Wet-Bed application

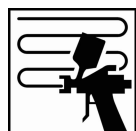


Wet-Bed application (Blending Agent / C063 ConverterMix)

Apply a full wet flowing coat of the Wet Bed over the area where the layer 2 color is to be blended, extending beyond layer 1.

Do NOT allow this wet-bed to flash-off; continue directly with the Layer 2 color application!

Autowave MM Optima Layer 2 color application

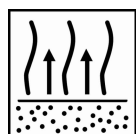


Solid layer 2 color application

1. Blend the basecoat color at 15-20 cm spray-gun distance using an outside-in technique creating a smooth color transition, blending the basecoat color gradually in to the “**wet**” Wet Bed layer
2. Apply a flowing wet coat of layer 2 color to the entire area beyond the layer 1 application area at a 15-20 cm panel distance, creating a smooth color transition, keep this coat well within the wet-bed area.
3. Proceed directly by applying an even intermediate coat without any flash-off over the complete repair area extending further into the blend area keeping within wet-bed area. Apply at an 15-20 cm spray-gun distance.

Metallic and effect layer 2 color application

1. Blend the basecoat color at 20-30 cm spray-gun distance using an outside-in technique creating a smooth color transition, blending the basecoat color gradually in to the “**wet**” Wet Bed layer
2. Apply a flowing wet coat of layer 2 color to the entire area beyond the layer 1 application area at a 15-20 cm panel distance, creating a smooth color transition, keep this coat well within the wet-bed area.
3. Proceed directly by applying an even intermediate coat without any flash-off over the complete repair area extending further into the blend area keeping within wet-bed area. Apply at an 20-30 cm spray-gun distance.



Flash-off

Allow the basecoat to flash-off until completely matt and dry before clearcoat application

Apply clearcoat within 24 hours at 20°C

Points of attention

- Always stir thoroughly after adding each component.
- Extend flash-off times;
 - Due to the increased layer thickness, 3-stage and certain special-effect colors require **extended flash-off times** to ensure optimum water evaporation prior to clearcoat application.
- When using accelerated air systems ensure a **minimum distance** of 1 meter from the object.
- **For colors with a high percentage of W120 White**, accelerated drying is not recommended. If required, allow a 5-minute ambient flash-off, then apply gentle airflow from at least 1 metre to minimise skinning and water entrapment.
- When heat is used for drying, allow object to cool down to application temperature before proceeding with clearcoat application.
- Layer 2 application;
 - To assist wetting of (*layer 2*), it is recommended to add an additional 5-10% activator compared with (*layer 1*), depending on application and environmental conditions.

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Wear appropriate personal protection equipment
Use suitable respiratory protection, the use of a fresh air supply respirator is recommended

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FOR PROFESSIONAL USE WITH SUITABLE HS&E EQUIPMENT

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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