

# Autowave<sup>®</sup> MM

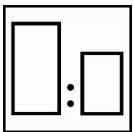
FOR PROFESSIONAL USE ONLY

**Description**

Autowave waterborne basecoat provides excellent coverage, metallic control and sprayability when used to duplicate OEM solid, metallic and pearl effect colors. Autowave must be used in conjunction with a specified Sikkens clearcoat in order to provide protection from the environment. Autowave is the superior choice to achieve an optimum color match.



Gently shake the Autowave can prior to use



100 Autowave  
 10-20 Activator WB



Use Sikkens measuring stick  
**14** Blue



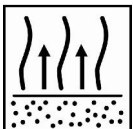
Spray gun set-up:  
 Below 28°C: 1.2-1.3 mm  
 Above 28°C: 1.3-1.4 mm

Application pressure:  
 1.7-2.2 bar at the air inlet  
 HVLP max 0.6-0.7 bar at the air cap



Application metallic colors:  
 Closed wet coat – Light wet coat – Drop coat

Application solid colors:  
 2 x 1 coat



Between coats:  
 Until completely matt at 25°C

Prior to clearcoat application:  
 15 minutes at 25°C



Clearcoat application  
 See clearcoat T.D.S.



Use suitable respiratory protection  
 Akzo Nobel Car Refinishes recommends the use of a fresh air supply respirator.

Read complete TDS for detailed product information



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## Suitable substrates

All Existing OEM finishes.

All current Sikkens preparatory products, with the exception of Washprimers.

### Note:

All Autowave SEC colors except SEC2322 must be applied on Colorbuild Black, Colorbuild Plus Black, Autowave black or fully cured and sanded black single stage topcoat.

Autowave SEC2322 (NIS AV2) should be applied over color NIS1052.

## Products and additives

**Product:** Autowave MM (Mixing Machine) colors  
 Autowave RM SEC colors

**Activators:** Activator WB, the waterborne basecoat activator to use for all repair sizes at standard application conditions at approximately 25°C and higher with a relative humidity range between 20% to 80%.

**Additives:** Autowave Additive LP, to extend the pot-life of Autowave metallic colors.  
 Activator WB  
 Autowave Separator  
 Autowave Guncleaner

*No plasticizer required for application on plastic car parts.*

## Basic raw materials

Water based acrylic dispersion

## Surface preparation



Final sanding step P500

- Initial sanding steps may be executed with a coarser sanding grit; P360 - P400
- Respect a maximum 100 grit sanding step difference or less throughout the sanding steps.
- For detailed surface preparation see TDS S8.06.02



Final sanding step P1000

- Initial sanding steps may be executed with a coarser sanding grit P600 - P800
- Respect a maximum 200 grit sanding step difference or less throughout the sanding steps.
- For detailed surface preparation see TDS S8.06.02



Surface cleaning, remove any surface contamination prior to the application of the basecoat using an appropriate surface cleaner.



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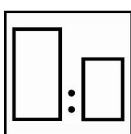
## Mixing



Gently shake Autowave several times before use for optimum pour viscosity of the MM toners prior to color mixing. Autowave MM 888 Metallic toners must be stirred thoroughly before using for the first time; thereafter they should be gently shaken as recommended for all other MM toners.



The Autowave MM colors must be stirred thoroughly directly after mixing the formula.



Add 10-20 parts Activator WB as standard mixing ratio for all Autowave colors.

- Mix the Autowave metallic colors which are more sensitive for cloudiness/mottling or more difficult to blend with 20-30 parts Activator WB for optimum metallic control and easier color blend.
- Add maximum 20 parts Activator WB to Autowave solid colors to obtain hiding power.

### MM245;

Mix MM245 with up to a maximum of 5 parts Activator WB.

Add 5 parts of Activator WB HT/LH to Autowave MM245 in case of temperatures exceeding 35°C

### Climate condition; low humidity (<20%)

Metallic colors; Add up to 30 parts of Activator WB to Autowave metallic colors for optimum sprayability, flow and metallic control.

\*Add up 40 to 50 parts of Activator WB to Autowave metallic colors in case the temperature rises above 35°C in combination with a humidity drop below the 10% for optimum sprayability, flow and metallic control.

### Climate condition; high humidity (>70%)

Metallic colors; Add minimum 10 parts of Activator WB to Autowave metallic colors for optimum sprayability, flow and metallic control.

Solid colors; a minimum amount of Activator WB (0-10 parts) can be add to Autowave solid colors.

*For accurate mixing always use measuring stick No. 14 (blue) or mix on the scale using Addit.*

### Color mixing without formula:

If an Autowave metallic color is made without the use of a formula it is essential to incorporate sufficient MM666 into the hand mixed formula; mix 4 parts MM666 to 1 part of the MM888 toner.

## Points of attention

### Filtering:

For optimum straining use waterborne suitable paint strainers, size: 125µm.

### Application:

In the event of a black pre-coat requirement i.e. special effect colors, use deep black MM400 RTS

### Solvents:

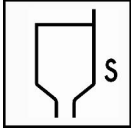
Avoid contact between waterborne products and any solvents.



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## Viscosity



20-30 seconds DIN cup no. 4 at 20°C.

## Spray gun set-up / application pressure

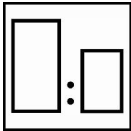


**Spray gun**  
Gravity feed

**Fluid tip – set-up**  
 Below 28°C: 1.2 – 1.3 mm  
 Above 28°C: 1.3 – 1.4 mm

**Application pressure**  
 1.7-2.2 bar at the spray gun air inlet  
 HVLP max 0.6-0.7 bar at the air cap

## Pot-life



All mixed solid and pearl Autowave colors:	3 months at 20°C.
Autowave Metallic colors:	1 week at 20°C.
Autowave colors containing MM 777:	1 day at 20°C.
All mixed metallic and pearl Autowave colours containing MM245	2 months at 20°C

To obtain a three month pot-life for all Autowave metallic colors add Autowave Additive LP.

**Adding Autowave Additive LP;** Thoroughly stir the MM toners after mixing, then add 5% Autowave Additive LP. Stir thoroughly before adding Activator WB, stir once more prior to use.  
*Do not use Autowave Additive LP in solid colors!*

## Application process

### Solid colors

Apply 2 single coats or until opacity is achieved. \*Flash-off between coats by increasing airflow and or heat until the basecoat dries completely to a matt finish. If necessary allow the surface to cool.

*Autowave MM 245 applied als pure color can be applied in 2 single layers with flash-off between coats as also by 2 light wet coats wet-on-wet.*

*\*Dry for a minimum of 15 minutes (max. 24 hours) at 25°C prior to clearcoat application.*

### Metallic/pearl/SEC colors

Apply a closed wet coat. Next apply an intermediate coat. \* Flash-off between coats by increasing airflow and or heat until the basecoat dries completely to a matt finish. If necessary allow the surface to cool.

*When needed, apply a drop coat (metallic orientation coat) by reducing the pressure to 1-1 ½ bar at the gun inlet and apply the drop coat with full trigger, increase the distance to approximately 30 cm..*

*\*Dry for a minimum of 15 minutes (max. 24 hours) at 25°C prior to clearcoat application.*

### Spot repairs

When making spot repairs use lower application pressure and apply thin coats until opacity is achieved. Dry until matt between each coat before fading out well beyond the edges. In case of metallic colors apply a drop coat (metallic orientation coat) when needed by increasing the spray gun distance.

*In the case of high hiding colors, the color transparency can be increased by adding MM 666 RTS to the RTS mixed color.*



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## Autowave drying and air acceleration

Humidity and airflow will influence the Autowave flash off and drying times. These times can be reduced to a minimum by using air accelerator systems with a minimum distance of 1 meter from the object, thus increasing the airflow over the object.

When heat is used for drying, allow object to cool down to application temperature before proceeding with color or clearcoat application.

## Film thickness

By recommended application; Autowave solid, metallic and pearl colors: 12-25  $\mu\text{m}$ .  
*The total dry layer thickness of Autowave should never exceed 30 $\mu\text{m}$ .*

## Masking

Autowave Solid, Metallic and Pearl colors can be taped after 20 minutes flash-off at 25°C.

- *Temperature increase in combination with air movement increase the ability for masking.*
- *Let the object cool down to ambient temperature before masking.*

## Denibbing

Allow Autowave to flash off sufficiently, at least 20 minutes at 25°C.  
Then lightly sand the damaged area with P500 free-cut sanding paper.  
Thoroughly remove sanding residue before continuing Autowave application.

## Recoatable with

All Sikkens (VOC compliant) clearcoats.

## Recoat time

Prior to the clearcoat application:  
Minimum 15 minutes at 25°C.  
Maximum 24 hours at 25°C

*Should this maximum time be exceeded, abrade the surface and apply another coat.*

## Material usage

By using the recommended application the theoretical material usage is  $\pm$  8-14 m<sup>2</sup>/liter RTS mixture.

*The practical material usage depends on many factors i.e. shape of the object, roughness of the surface, application techniques, pressure and application circumstances.*



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## Cleaning of equipment

Clean and rinse the spray gun thoroughly after use with Autowave Guncleaner.

Purge the spray gun with Activator WB prior to Autowave use.

- Do not use any conventional thinner unless removing dried Autowave deposits.
- Do not soak the spray gun for long periods either with Autowave Guncleaner or Activator WB.

## VOC

### 2004/42/IIb(d)(420)413

The EU limit value for this product (product category: IIB. d) in ready to use form is max. 420 g/liter of VOC.

The VOC content of this product in ready to use form is max. 413 g/liter.

## Storage



Product shelf-life is determined when products are stored unopened at 20°C.

Avoid too much temperature fluctuation.

- For optimal performance, store opened products at application temperature
- Maximum transport and storage temperatures between 3°C-35°C.
- Frost causes gelling / lumps in Autowave toners after which they no longer can be used.
- Product shelf life data see TDS S9.01.02

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**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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