

Autowave[®] MM 2.0

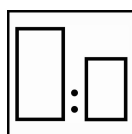
FOR PROFESSIONAL USE ONLY

Description

Autowave MM 2.0 waterborne basecoat provides excellent coverage, metallic control and sprayability when used to imitate OEM solid, metallic and pearl effect colors. Autowave MM 2.0 must be used in conjunction with a specified Sikkens clearcoat in order to provide protection from the environment. Autowave MM 2.0 is the superior choice to achieve an optimum color match.



Gently shake the Autowave MM 2.0 can prior to use



100 Autowave MM 2.0 solid colors
0-10 Activator WB

100 Autowave MM 2.0 metallic colors
10-20 Activator WB



Use Sikkens measuring stick

14 Blue



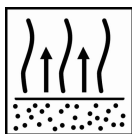
Spray gun set-up:
1.3mm – 1.4mm

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



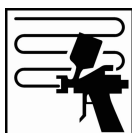
Application metallic colors:
Closed wet coat
Light wet coat
Mist coat

Application solid colors:
2 x 1 coat



Between coats:
Until completely matt and dry

Prior to clearcoat application:
Until completely matt and dry



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 Plus Black, Autowave MM 2.0 MM 400 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 2.0 (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 10% to 80%.

Activator WB HT/LH: this waterborne basecoat activator can be used for extremer situations when the relative humidity is getting below 10% and the temperature is getting higher than 40°C

Additives: Autowave Separator
Autowave Guncleaner
Autowave Hardener (see TDS S5.01.02)

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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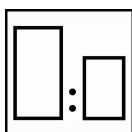
Mixing



Gently shake Autowave MM 2.0 several times before use for optimum pour viscosity of the MM toners prior to color mixing. Autowave MM 800 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.



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



- Add 0-10 parts Activator WB as standard mixing ratio for all Autowave MM 2.0 solid colors.
Add 10-20 parts Activator WB as standard mixing ratio for all Autowave MM 2.0 metallic colors.
- Mix the Autowave MM 2.0 metallic colors which are more sensitive for cloudiness/mottling or more difficult to blend with a further 20-30 parts Activator WB for optimum metallic control and easier color blend.
 - Add maximum 20 parts Activator WB to Autowave MM 2.0 solid colors.

Climate condition: low humidity (<10%)

Metallic and pearl colors: Add up to 30 parts of Activator WB to Autowave MM 2.0 metallic / pearl colors.

Climate condition: high temperature (>40°C) and low humidity (<10%)

- Mix the color accordingly with Activator WB HT/LH instead of the regular Activator WB.

Climate condition; high humidity (>80%)

Metallic and pearl colors: Add minimum 10 parts of Activator WB to Autowave MM 2.0.

Solid colors: a minimum amount of Activator WB (0-10 parts) can be add to Autowave MM 2.0 solid colors.

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

Color mixing without formula:

If an Autowave MM 2.0 metallic color is made without the use of a formula it is essential to incorporate sufficient MM 600 into the hand mixed formula; mix 60 parts MM 800 toner with 40 parts of MM 600.

Under the hood

For under the hood application add 10% of Autowave Hardener to the Autowave MM 2.0 color.

If desired Add 10% Activator WB to this color/hardener mixture for optimum sprayability.

The use of clearcoat is not needed.

Diluting a mixed color (optional)

In situations where you want to dilute the mixed color to decrease opacity supporting your color blending add MM 666 to your color mixture. The ratio MM 800 and MM 600 must stay according to the formula for optimum system properties.

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:

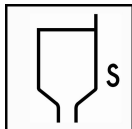
Avoid contact between waterborne products and any solvents.



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Viscosity



20-30 seconds DIN cup no. 4 at 20°C.

Spray gun set-up / application pressure

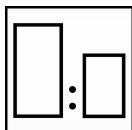


Spray gun
Gravity feed

Fluid tip – set-up
1.3 mm – 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 Autowave MM 2.0 colors:

3 months at 20°C.

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 as pure color can be applied in 2 single layers with flash-off between coats as well as by 2 light wet coats wet-on-wet.

**Force drying using windjets, keep a minimum distance of 1 meter.*

Metallic/pearl/SEC colors

Apply a closed wet coat. Next apply a light wet 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.

For optimal metallic orientation, apply a mist 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 30 cm.

Force drying using windjets, keep a minimum distance of 1 meter.

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.*

Note:

- Fade out of Autowave MM 2.0 can be done on a slightly wet or fully dried coat of **MM666**.



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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 MM 2.0 colors: 12-25 µm.
The total dry layer thickness of Autowave MM 2.0 should never exceed 30µm.

Masking

Autowave MM 2.0 colors can be taped after it is completely matt and dry.

Denibbing

Allow Autowave MM 2.0 to flash off sufficiently, until it is completely matt and dry. Then lightly sand the damaged area with P800 free-cut sanding paper while applying compressed air. Thoroughly remove sanding residue before continuing Autowave MM 2.0 application.

Recoatable with

All Sikkens (VOC compliant) clearcoats with the exception of:
Autoclear, Autoclear III, Autoclear LV Supreme, MS Clearcoats

Recoat time

Maximum 24 hours at 25°C
Should this maximum time be exceeded, abrade the surface and apply another coat.



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Material usage

By using the recommended application the theoretical material usage is $\pm 8-14 \text{ m}^2/\text{liter}$ 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.

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 MM 2.0 use.

- Do not use any conventional thinner unless removing dried Autowave MM 2.0 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 MM 2.0 toners after which they no longer can be used.
- Product shelf life data see TDS S9.01.02

AkzoNobel Car Refinish bv.

Address: Rijksweg 31, PO Box 3, 2170 BA Sassenheim

Tel: +31(0)71308-6944

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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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Head Office

Akzo Nobel Car Refinishes B.V., PO Box 3 2170 BA Sassenheim, The Netherlands. www.sikkenscr.com

