

Autowave[®] MM 2.0

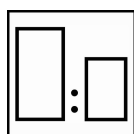
FOR PROFESSIONAL USE ONLY

Description

Autowave MM 2.0 waterborne basecoat provides excellent coverage, metallic control and sprayability when used to duplicate 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

10-20 Activator WB



Use Sikkens measuring stick

14 Blue



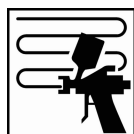
Spray gun set-up:

1.3 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:

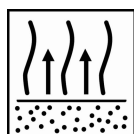
2 x 1 layer followed by a mistcoat

Application solid colors:

2 x 1 layer

*Alternative method: No flash off needed between 1st and 2nd layer

Please read the application process / information explained below in this TDS

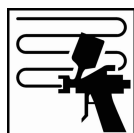


Between coats:

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
 Activator WB HT/LH (only for use in conjunction with MM245 by adding max 5%)

Additives: Autowave Separator
 Autowave Guncleaner
 Autowave 2.0 Hardener (see TDS S5.01.02)
 Autowave Additive LP

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; P320 - 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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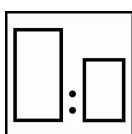
Mixing



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 and MM 245 toner 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.



Standard climatic conditions

10-20 parts of Activator WB for all Autowave MM 2.0 colors.

20-30 parts of Activator WB for Autowave 2.0 colors sensitive to cloudiness/mottling or difficult to blend.

Extreme climate conditions

Relative Humidity		Temperature	
		< 35°C	> 35°C
> 70%	Metallic / Pearl	10 - 20	10 - 20
	Solid	5 - 10	5 - 10
< 20%	Metallic / Pearl	10 - 30	10 - 30
	Solid	10 - 20	10 - 20
< 10%	Metallic / Pearl	10 - 30	40 - 50
	Solid	10 - 20	10 - 20

For more detailed information concerning application in more extreme conditions please refer to the Technical Bulletin S8.06.12

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

Color mixing without formula:

If an Autowave MM 2.0 metallic color is made without the use of a formula, mix 60 parts MM800 toner with 40 parts of MM600.

Diluting a mixed color (optional)

In situations where you want to dilute the mixed color (RTS) to decrease opacity supporting your color blending add MM 666 (RTS) to your color mixture.

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

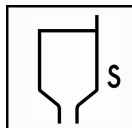
Solvents:

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

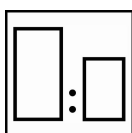
For use at HT / LH

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 RM 2.0 colors:

Autowave 338NA, NB, ND metallic colours

Autowave 338NA, NB, ND metallic colours containing MM 700

3 months at 20°C.

1 week at 20°C

1 day at 20°C

Note: With the addition of 5% Autowave Additive LP the pot life of non standardised 338 metallic colours is extended to 3 months in combination with 245 mixed colours (Before use). Make sure the colour is homogenized properly by thoroughly stirring

Restriction: Autowave Hardener 2.0 cannot be added to ready mixed Autowave colors containing Additive LP in combination with Autowave toners 338NA, 338NB, 338ND, 338NS

Application process

Solid colors

Apply 2 single layers or until opacity is achieved. Flash-off between each layer by increasing airflow and heat until the basecoat dries completely to a matt finish. Allow the surface to cool prior to clearcoat application.

Alternative Application Method

Apply 2 single layers wet-on-wet or until opacity is achieved without the need to flash-off in-between each layer. Increase the airflow and heat until the basecoat completely dries to a matt finish. Allow the surface to cool prior to clearcoat application.

Note: It is strongly recommended to produce a sprayout sample to check the colour accuracy prior to completing the repair.

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

Metallic/pearl/SEC colors

Apply a closed wet layer, followed by a flash-off, then apply a light wet layer.

Flash-off between each layer by increasing the airflow and heat until the basecoat completely dries to a matt finish. Allow the surface to cool prior to applying a controlled drop coat.

Alternative Application Method

Apply a closed wet layer followed directly by a light wet layer wet-on-wet without the need to flash-off between each layer. Increase the airflow and heat until the basecoat completely dries to a matt finish. Allow the surface to cool prior to applying a controlled drop coat.

For optimal metallic orientation increase the distance of the spraygun to 30 cm.

Note: It is strongly recommended to produce a sprayout sample to check the colour accuracy prior to completing the repair.

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

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Application process (continued)

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 mist 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:

- Existing finish, prepared according to TDS S8.01.01
- A wet or dried coat of mixture MM666 / MM600 (60:40) or pure toner MM666

Underhood application process

Under the hood

For under the hood application add 10% of Autowave 2.0 Hardener to the Autowave MM 2.0 color. If desired add 10% of Activator WB to this color/hardener mixture for optimum sprayability. The use of clearcoat is not needed.

Autowave drying and air acceleration

Humidity and airflow will influence the Autowave MM 2.0 flash off times. This can be reduced using air accelerator systems with a **minimum distance** of 1 meter from 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 30µ).

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:

When recoated with Autoclear Aerodry*

It is mandatory to add 5% Autowave 2.0 Hardener to Autowave MM 2.0

Pre-coat / wet bed layer

Please refer to the Autoclear Aerodry TDS S1.05.28

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 $\pm 8-14$ m²/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

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. 420 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

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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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