



Frequently Asked Questions

FOR PROFESSIONAL USE ONLY

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- Are there any Autowave color formulas available for Truck or other Commercial Vehicles?
- What causes the color difference of the Autowave when it is wet and when it is fully dry?

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- How long can I store the MM666 pre-coat when mixed with Activator WB?
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- What if I can not clean the Autowave spray gun with Autowave Guncleaner?
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- Can I use the same gun for both water and solvent borne paint products?
- Can I use a normal tack rag for dust removal?
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- What is the maximum recoat time in which the Autowave must be recoated with a clearcoat?
- What kind of masking tape is recommended for waterborne paint?
- What is the maximum layer thickness to apply with Autowave?
- What can I do to reduce the flash-off times, which kind of equipment must I use?



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Defects:

- What if cratering occurs in the first layer of Autowave?
- What If cratering occurs despite cleaning with a waterborne surface cleaner?
- Can I denibb Autowave when there are minor dust particles in paint?
- What if too many Autowave paint layers are to be applied due to hiding power, two tones or multiple color application (styling work)?
- What if Autowave shows floating of aluminum (or color pigments) due to too heavy application?
- What If I still have cloudiness/mottling after applying the orientation (drop) coat?
- What if sagging (runs) occurs during the application of Autowave?

Assortment and Storage:

- What If I have left over material from a paint job?
- What to do when paint skinning appears in the can or in the paint?
- What if Autowave has been exposed to freezing conditions?
- How can I dispose of Autowave paint and /or Guncleaner residues?



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Color:

Are Autowave formulas available for all ColorMap positions?

Yes, all ColorMap positions are available to mix with an Autowave formula.

Are there any Autowave color formulas available for Truck or other Commercial Vehicles?

Autowave formulas for trucks and other Commercial Vehicles are listed under Autowave CV/Fleet colors.

What causes the color difference of the Autowave when it is wet and when it is fully dry?

Waterborne binder particles inside the paint creates a bluish color effect of the paint inside the can and while spraying. Once the water is fully evaporated the color can be judged on accuracy.

The strength of this bluish color effect differs per waterborne basecoat (competitor product also) and per color.

Note; Accurate color judgment can only be given when the waterborne basecoat is completely dry and covered with a clearcoat

Recipe:

What if I added too much Activator WB?

When too much Activator WB is used i.e. over the maximum 30 parts specified, the hiding power will be less due to the lower layer thickness one is able to apply. The lower viscosity could also give rise to more flow resulting in runs and poor distribution of aluminum and mica pigments if the painter does not adapt his application.

**Adding up to 30 parts of Activator WB is recommended when the humidity level is 20% or less.*

In particular when low humidity is combined with high temperatures; 95°F (35°C) it is recommended to add more Activator WB.

Can I add more Activator WB to improve the color blend (fade-out)?

Due to the hiding power reduction the paint becomes more translucent and will become easier to blend for several colors. Dependent on color and color change, slight air pressure reduction is required to obtain color accuracy.

Note; the need for more Activator WB and the desired quantity to add depends on the need and desire of the painter.

What if I added too little amount of the Activator WB?

When too little Activator WB is added, in relation to low relative humidity application conditions, the Autowave flash-off becomes too fast. Especially in the case where there is extreme low humidity, this can cause metallic cloudiness/mottling. Too fast flash-off can also cause a very coarse basecoat surface.

What if I have forgotten the Activator WB?

Sprayability will be slightly less when no Activator WB is used, resulting in slower drying. This is due to the higher layer thickness achieved; "orange peel" effect will also be increased. Adding Activator WB to the mixture will solve the problem. If this problem is not addressed, appearance can be slightly worse.

What if I used Autobase Plus Reducer/Sikkens High Performance Reducer instead of Activator WB?

If Autowave is reduced with any solvent borne reducer, the Autowave will coagulate and become lumpy.

The Autowave must be discarded/disposed and thrown away, as liquid chemical waste, according to national waste disposal regulation.

Is there a special additive required for application on flexible plastic parts?

No, no special additive is required for system performance of Autowave on flexible plastic parts.



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Recipe:

Is there a special additive for direct application on interior parts?

There is no special additive to add to Autowave in order to make it suitable for direct application on thermoplastic interior parts. Adhesion promoter (Primer PO) is required to be applied after correct preparation.

- ◆ Do not paint Air Bag Covers.

Mixing:

Why do I need to gently shake Autowave prior to use?

Autowave has a high structure viscosity, like tomato ketchup, and will be more pseudo plastic (thick, gel like) when it is not shaken. Once shaken it is much easier to pour and mix formulas.

Can I shake Autowave MM toners with a paint shaker?

Shaking of an Autowave MM toner or a mixed color with a mechanical paint shaker is possible, although not recommended. Extended shaking will cause foaming of Autowave.

In case of mechanical shaking, let the material settle for several minutes after shaking so the foam (air) can dissipate, avoiding aeration (bubbles) while spraying.

- ◆ Keep mechanical shaking only for MM888 metallic toners; gently shake all other MM toners.
- ◆ Thorough filtering/straining will also remove the air from the Autowave color.

Why do I need to hand stir MM888 Metallic toners prior to use?

Autowave MM888 metallic toners are normally gently shaken like other Autowave toners.

Because the metallic particles settle at the bottom of the can during storage, it is recommended to stir the MM888 toners thoroughly to get uniform structure and consistency of the liquid prior to use for the first time.

- ◆ These MM888 toners can also be shaken (see recommendations on Autowave shaking).
- ◆ Autowave MM888 metallic toners can show binder/varnish floatation in the can. With a little more thorough shaking the 888 MM toners are easily shaken to a homogeneous color again.

Can I damage the inner coating inside the paint can?

The inside of the Autowave can is covered with a special coating to avoid corrosion inside the can due to the water. Aggressive stirring can scrape and damage the coating which can result in corrosion, which will in turn contaminate the Autowave MM toner. In particular, when the Autowave MM toner is a slow user.

How long can I store the MM666 pre-coat when mixed with Activator WB?

The ready to spray MM666 pre-coat has a normal pot-life of 3 months at 70°F (20°C) stored in a closed container. Prior to use, stir thoroughly.

Why is it important to first stir the mixed color before adding the Autowave Activator WB?

For easier and complete blending of all toner colors, this is done more thoroughly before thinning.

Adding Activator WB before stirring the color formula can shock, or provide unsatisfactory functions, such as cratering, during application.

- ◆ Color accuracy and or wetting craters during application may be the result of not first stirring the color before adding Activator WB.
- ◆ Be aware, If you are using the ADDIT function on the Mixit system. Mix first the color formula, then stir the components before returning the can to the scale and requesting yes to "mix additives now"

What if I use regular tap water instead of Activator WB?

Purified water does not contain components which supports Autowave in sprayability, flow and water evaporation. Activator WB is especially designed for optimum Autowave performance.

Regular water can affect Autowave performance such as wetting craters, performance can differ per color!



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Mixing:

Can I add Autowave Additive LP into a solid color?

No, Autowave Additive LP (Long Pot-life) is designed to extend the pot-life of metallic colors and metallic colors which contain MM777 to 3 months.

- ◆ Addition of Autowave Additive LP can also cause gelling of the Autowave solid colors.

What happens if I add too much Autowave Additive LP into a metallic color?

Addition of 5% Autowave Additive LP by weight is the minimum amount to add to secure the pot-life of the metallic colors. The spraying viscosity will not be affected if, by accident, a little bit more LP additive is added.

- ◆ In case there is more than 10% additive LP added (by weight) the viscosity of the Autowave metallic color can get higher (becomes thicker) which will affect sprayability, flow and also color accuracy.

What happens if I add Autowave Guncleaner into an Autowave solid, metallic or pearl color?

Guncleaner is designed to soften and dissolve slightly dried Autowave paint residue inside and on the spraygun. When Autowave Guncleaner is added to the Autowave color the binder will be affected and will most likely dissolve, creating the Autowave color to shift pigments from binder. The level of dissolving depends on the amount of Guncleaner which was added and the amount of binder pigment ratio in the Autowave color.



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Application:

What if the first coat of Autowave already covers?

If Autowave solid colors cover in one coat, no additional second coat needs to be applied and the minimum layer thickness is reached (0.4 – 0.9 mils / 12-25 µm).

If Autowave metallic colors cover in one coat, apply the final orientation coat, in the case of the first coat did not show too much mottling effect. In the case of mottling in the first coat, apply a second intermediate coat followed by the orientation (drop) coat.

What happens if I apply the drop coat (metallic orientation/mist coat) into the wet Autowave paint film?

The drop coat (metallic orientation/mist coat) will sink in the wet basecoat layer previously applied; no effect/contribution from this coat becomes visible. Always apply this drop coat over a fully dried Autowave layer.

What if the air or object temperature is too low (winter conditions)?

Optimum results will be achieved when Autowave is applied at 75°F (25°C). It is advised that spraybooth, car and paint are acclimatized for these circumstances.

- ◆ Be aware that low VOC products are more sensitive to viscosity differences under different climatic circumstances.

What if the ambient conditions exceed 90°F (35°C)?

Autowave drying behavior is more depended on air humidity than on temperature.

Autowave will dry slower when the air humidity is equal to or higher than 80% RH.

Temperatures above 90°F (35°C) will not cause difficulties when air acceleration systems are used.

- ◆ High humidity (80% or higher), slower evaporation; add no or minimum 10 parts Activator WB.
- ◆ Low humidity (20% or less), faster water evaporation; add more Activator WB.
 - ◆ Do not add more than 20 parts Activator WB to Autowave solid colors.
 - ◆ For Autowave metallic colors one can add up to maximum 30 parts Activator WB.

What if I can not clean the Autowave spray gun with Autowave Guncleaner?

When the spray gun is not 100% cleanable with Autowave Guncleaner, disassemble the spray gun and clean it with a solvent borne gun cleaner. This is standard recommendation to do at least once a week. Be aware that after using a solvent borne gun cleaner to purge the spray gun thoroughly with Autowave Guncleaner and rinse using Activator WB prior to spraying Autowave.

What if I clean the Autowave spray gun with solvent borne gun cleaner?

After cleaning the spray gun with a solvent borne gun cleaner the spray gun must be purged thoroughly with Autowave Guncleaner followed optionally with Activator WB to be sure that all solvent residues are removed.

- ◆ Solvent residues may result in cratering.

Can I use the same gun for both water and solvent borne paint products?

This is not recommended; residual impurities can cause craters to occur in either product when the same spray gun is used. Therefore use separate spray guns for waterborne and solvent borne paint products

Can I use a normal tack rag for dust removal?

It is recommended to use a tack rag with limited stickiness.

- ◆ The Sikkens 1.2.3 Tack Cloth is stickier, (AKZ123TC). The Sikkens Professional Tack cloth is recommended, (AKZ124TC).



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Application:

What can I do when the color fade-out has become too coarse?

When the color fade out (color blend) has become too coarse this is most likely caused due to the coarse metallic in the color. Also by incorrect application combined with a too high application and/or object temperature. Covering with one or two coats of MM666 RTS would cover this coarseness but not solve the problem, it will rather weaken the system (too high layer thickness, risk for delamination and blistering). Best option is to thoroughly flash-off the basecoat and sand away the coarseness (in case of extreme surface coarseness remove Autowave completely to secure system properties) then proceed again taking following points in consideration;

1. Use a wet-bed (pre-coat) of MM666 RTS to reduce the risk for coarseness in the fade out area
2. Add more Activator WB (20-30 parts) to the color from the beginning and apply the color.
3. Adapt the application to reduce the risk for overspray and coarseness in the fade out area.

What is the maximum recoat time in which the Autowave must be recoated with a clearcoat?

Maximum recoat time is 24 hours (indicated in the Autowave TDS).

Preferable, apply the clearcoat within the same day as the Autowave application.

What kind of masking tape is recommended for waterborne paint?

In case masking is required for either two-tone or design colors increase the flash-off time and use heat and air acceleration for optimum drying. Let the object cool down sufficiently to ambient temperature prior to masking. Use water resistant masking tape; i.e. 3M # 233+ (Green) masking tape or similar quality of any other brand. Also use water resistant masking paper or plastic.

For accurate masking use water resistant masking tape; i.e. 3M 471 Blue Fine Line vinyl tape or the 3M 218 Green Fine Line tape or similar quality of any other brand.

What is the maximum layer thickness to apply with Autowave?

In the Autowave TDS is a maximum layer thickness of 1.2 mils (30 µm) indicated. A higher layer thickness will increase the risk to create a weakened system, reducing its system properties. In case of exceeding or expecting to exceed this layer thickness (i.e.; three stage pearl application, poor covering) take following actions;

In case of poor covering color; use a colored primer i.e.; Colorbuild, hereby reducing the number of coats to be applied by Autowave. In other cases;

- o Extend (double) the final flash-off time and increase the heat for approximately 10-20 minutes up to 140°F (60°C) for optimum flash-off/water evaporation. The higher the expected layer thickness the longer the flash-off time.
- o Secure that there is sufficient clearcoat layer thickness (a minimum of approximately 1.8 mils (40µm) for optimum protection.

What can I do to reduce the flash-off times, which kind of equipment must I use?

Heat and air acceleration will reduce the Autowave flash-off times.

A wide range of waterborne basecoat drying (air acceleration or amplification) equipment is available in the different markets. Air acceleration in combination with temperature increase inside the spraybooth is most beneficial and can be installed also as a combined system. Criteria for equipment selection are dependent on;

- o Customer need; number of cars to be painted in the bodyshop.
- o Willingness or need for investment; some customers can do with low investments, a relatively cheap tool as a WindJet or AirJets on stands and some customers will need or desire an more advanced system from AirWave. There are ceiling fans, the integrated wall mounted systems up to a full integrated Qad system.



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Defects:

What if cratering occurs in the first layer of Autowave?

Craters, should they occur can be eliminated by applying Autowave in thin layers and flash-off /drying thoroughly between coats. Continue with normal application when the craters have been covered.

A thin first coat of Autowave can be applied, followed by normal application to avoid the first coat wetting craters in the future.

- ◆ When severe cratering occurs, thoroughly wash the total panel with Autowave Guncleaner. Totally remove the applied Autowave and clean the surface once more with a solvent borne surface cleaner followed by the waterborne surface cleaner.

What If cratering occurs despite cleaning with a waterborne surface cleaner?

Cratering occurs when surface active materials are still present on the substrate. Ensure that all waterborne surface cleaner is thoroughly removed by thorough wiping the panel(s) dry by using high quality absorbent degreasing towels for optimum water residue absorption.

- ◆ For optimum surface cleaning, clean small manageable areas and remove surface cleaner before evaporation.
- ◆ Change cleaning towels regularly.

Can I denib Autowave when there are minor dust particles in the paint?

Dust particles can easily be sanded away after thorough drying of Autowave (preferably in combination with heat and air acceleration). Remove the particles by careful dry sanding with P500 - P600 grit.

Wet sanding (although not recommended) can be done with minimum amount of water, with P1000 - P1200 grit. Allow sufficient water evaporation time prior to Autowave application.

Dry sanding is preferred!

What if too many Autowave paint layers are to be applied due to hiding power, two tones or multiple color application (styling work)?

Drying between coats is very important to the system properties, when more layers than normal are required. Consider longer flash-off/drying times otherwise mechanical properties will decline.

- ◆ It is advised to use the color benefit of Colorbuild 2.1 – 2.8 to assist hiding if necessary.
- ◆ Autowave flash-off/drying is best when made with a combination of temperature increase and air acceleration, especially with multiple color or three stage pearl application.

What if Autowave shows floating of aluminum (or color pigments) due to too heavy application?

Dry the applied Autowave layer thoroughly (preferably in combination with heat and air acceleration). Next apply a normal layer for solid colors, or an intermediate coat followed with an orientation coat in the case of a metallic color.

What if I still have cloudiness/mottling after applying the orientation (drop) coat?

Normally an additional cross layer of an orientation (drop) coat should improve the result.

Keep the recommended application method in mind; full coat-intermediate coat-followed by the orientation coat.

Apply the orientation coat always with a full open trigger and slow down the spray tempo, but increase the spray gun distance to about 12 - 14 inches (30-35 cm).



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Defects:

What if sagging (runs) occurs during the application of Autowave?

When sagging occurs, it can be caused by extreme heavy application in combination with a too low viscosity and/or temperature.

Problem solving; Dry the applied Autowave layer thoroughly (preferably in combination with heat and air acceleration). Remove the run by sanding with P500 -P600 grit dry. Coarser sanding is possible but beware not to create too heavy/deep sanding scratches which become difficult to remove.

Wet sanding (although not recommended) can be done with minimum amount of water, with P1000 - P1200 grit. Allow sufficient water evaporation time prior to Autowave application.

Dry sanding is preferred!

Assortment and Storage:

What If I have left over material from a paint job?

Autowave materials can be kept for other / new jobs of the same color but be aware of the pot-life.

Store the Autowave paint leftover in a plastic or coated metal can with a closed lid.

Turn the paint thoroughly before reuse. Keep the following pot-life indications in mind:

- ◆ Autowave metallic RTS colors can be used for 1 week (7 days)
- ◆ Autowave metallic RTS colors that contain MM777 can be used the same day only!
- ◆ All other Autowave RTS colors can be used for 3 months.

To extend the pot-life of metallic colors and colors that contain MM777 to 3 months, Autowave Additive LP must be added to the color. Add Additive LP to the paint before using Activator WB.

What to do when paint skinning appears in the can or in the paint

When skinning appears, frequently when opening a new can (long storage time); do not shake the can prior to use. When opening a new can carefully remove the skin from the paint and can lid and discard.

Place the dispensing lid on the can and gently shake prior to pouring the MM toner. Any skin that does find its way into the mix should be filtered out before spraying.

What if Autowave has been exposed to freezing conditions

Gelling and clumping will occur, creating lumps in the Autowave. These lumps will not dissolve in liquid content even when the Autowave returns back to ambient temperature and the paint should no longer be used and must be thrown away (as chemical waste).

How can I dispose of Autowave paint and /or Guncleaner residues

Autowave liquid paint and Autowave Guncleaner residues contain organic content and must be disposed of as chemical waterborne waste.