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EN

Maxytone

Maxytone

PRODUCT INSTRUCTION

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1K Basecoat Colors Application Flow Chart

1、1K Basecoat Colors

1. Pre-mix the basecoat with thinner in ratio 1: 0.6-0.8

2. Apply 2-3 layers with normal spray pressure

3. Allow 5-10 minutes flash-off time each in-between

4. Mist spray 1 coat

5. Wait 15-20 minutes until the basecoat turns matted

6. Apply Clear Coat

FINISH

2K Solid Colors Application Flow Chart

2、2K Solid Colors

1. Mix paint with hardener and thinner with right ratio

2. Use measuring stick for this purpose

3. Wet spray 2 coats with normal spray pressure

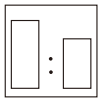
4. Allow 5-10 minutes (20℃) flash-off time in-between

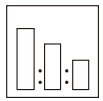
5. The dry-to-handle time is around 10 hours(20℃) or 30 minutes(60℃)

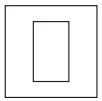
FINISH

Pictograph

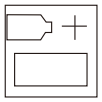

Cleaning

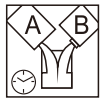

Mixing ratio–
2 components


Mixing Ratio–
3 components


Ready for use


Use measuring rulers


Add hardener

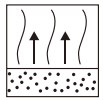


Pot Life


Gravity feed spray gun


Suction feed
spray gun


No.of coats


Flash–off time


Drying time

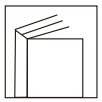

Dry sanding
by machine


Wet sanding by hand


Dry sanding by hand


Polishing

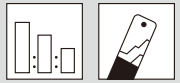

Use spreader


Refer to product
Instruction

2K Solid Colors

Characteristic: Medium and high class 2K topcoat solid colors, good hardness, high gloss and build, excellent protective and coverage power, long lasting bright color.
Substrates: Sanded and dried existing finishes, 1K or 2K primer.

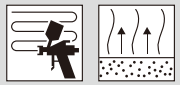
Surface Cleaning: Remove wax, silicon and other contaminations with degreaser



Mixing Ratio	Solid Colors	+	Hardener	+	Thinner
	2		1		0.2–0.5
< 18℃	2K Solid Colors		MAX–3611		M–1
18–24℃			MAX–3612		M–1/M–2
25–30℃			MAX–3612		M–2/M–3
>30℃			MAX–3613		M–3

Pot-Life at 20℃:
2 hours with MAX-3611 fast hardener
4 hours with MAX-3612 standard or MAX-3613 slow hardener

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



Coats & Thickness	2–3 coats, total 40–60um
Flash–Off Time	At 20℃, 5–10 minutes between coats
Air–Drying Time	Allow 15–20 minutes air drying time before force drying

Drying Time:

Temperature	Dust Free	Tack Free	Dry to Handle	Dry to Polish
20℃	45 minutes	2–3 hours	10 hours	16 hours
60℃	5 minutes	15 minutes	30 minutes	60 minutes

Note:
1. The substrate must be sanded and cleaned before spray. (Wet sanding: P600–P800, drying sanding: P400– P600)
2. At temperature lower than 15℃, air–dry at ambient temperature is not recommended. Allow a full bake at 60℃.
3. At ambient temperature higher than 30℃, add Retarder Solvent into thinner to avoid blushing. For details please refer to the technical data sheet of Retarder Solvent.
4. In the event of fisheyes during application, add 0.5–1% Anti Silicon in the paint remained and re–spray the affected area.
5. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
6. The products mixed with hardener should be used up soon and can not restore for future use.
7. Clean equipments immediately with solvent after application.
8. If there are particles or runs after spray, sand the affected area with P1200–P2000 sand paper after thorough drying, then polish to solve the problem.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L or 3.75L

Maxytone

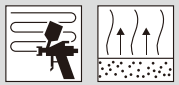
1K Basecoat Colors

Characteristic: Single component basecoat with solid colors, metallic and pearl effect, made from weathering resistant resins, high quality, strong coverage power, and excellent adhesion power.
Substrates: Sanded and dried existing finishes, 1K or 2K primer.

Surface Cleaning: Remove wax, silicon and other contaminations with degreaser

Mixing Ratio	Basecoat Colors	+	Thinner
	1		0.6-0.8
< 15℃	1K Basecoat Colors		M–5
15–30℃			M–1
>30℃			M–2

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



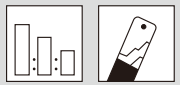
Coats & Thickness	2–3 coats, total 15–25um
Flash–Off Time	At 20℃, 5–10 minutes between coats
Air–Drying Time	Allow 10–15 minutes air drying time before force drying

Note:
1. The substrate must be sanded and cleaned before spray. (Wet sanding: P600–P800, drying sanding: P400– P600)
2. At temperature over 30℃ or in high humidity, it is recommended to use Retarder Solvent to avoid mottling.
3. Because of the high transparency of metallic basecoat, good quality spray gun and professional spray techniques are required in order to prevent defects of mottling or poor metallic effects.
4. To avoid problems of mottling or poor adhesion, the metallic paint film should not be thicker than 25um.
5. Better effect could be achieved if the extra silver powder could be removed with tack rag after the flash–off of each coat.
6. After spray, allow 10–15 minutes air–drying time, then spray clear coat at once. Over long air drying time would affect the adhesion power.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L or 3.75L

MAX-60 Flip Controller

Characteristic: Effect additive for metallic colors.



Mixing Ratio - Volume

20% or less of MAX-60 can be used to lighten the side tone of the metallic color and create a darker face with appearance of larger metallic sparkle. Excess addition would affect the adhesion between basecoat and clear coat.

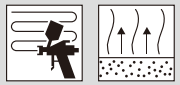
Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L

MAX-10 Plastic Primer

Characteristic: A single-component transparent fast drying primer, used to promote adhesion of paint system to plastic parts.
Substrates: Plastic parts such as PP, PA, PE.

Surface cleaning: Sanding with P400-P600, remove wax, silicon or other contaminations with degreaser.

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



Coats & Thickness	2-3 coats, total 1-2 um
Flash–Off Time	At 20°C, 5-10 minutes between coats
Air–Drying Time	Allow 15-20 minutes air drying time before force drying

Note:
1. The product is ready to use.
2. It is recommended not to spray thickly to avoid peeling off.
3. Test is recommended before application due to the variety of plastic parts.
4. Spray primer over the plastic primer after flash off in 10–15 minutes.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L

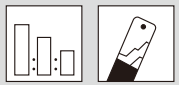
Maxytone

MAX-20 Epoxy Primer

Characteristic: Gives excellent rust proofing for bare metal, good adhesion power to steel, aluminum and galvanized steel.

Substrates: Sanded and dried existing finishes, steel, iron and glass fiber reinforced plastic.

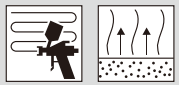
Surface cleaning: Remove wax, silicon and other contaminations with degreaser



Mixing Ratio	Epoxy Primer	+	Hardener	+	Thinner
Weight	5		1		1-1.5
Volume	3.5		1		1
⩾30℃	MAX-20		MAX-21		MAX-22

Pot–Life at 20℃:
4–6 hours with hardener

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



Coats & Thickness	2–3 coats, total 40–60 um
Flash–Off Time	At 20℃, 5–10 minutes between coats
Air–Drying Time	Allow 15–20 minutes air drying time before force drying

Dry sanding: P240–P400
Wet sanding: P600–P800

Re-coat with primer after flash-off time of 10-15 minutes.

Note:
1. For oxidated iron and cast iron, shot blasted sa2.5 class with roughness of 30–75um, or acid wash the oxidated parts to get rid of rust.
2. It is recommended to bake at 60–70℃ for 30 minutes when temperature is below 10℃ for better curing of paint film.
3. Choose right hardener and thinner to avoid poor curing of paint film.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 5KG

MAX-30 2K Primer Surfacer

Characteristic: Multi-purpose double pack primer surfacer, with strong filling power and fine adhesion between coats, has excellent flexibility and impact resistance which can increase gloss and build of topcoat.

Substrates: Sanded and dried existing finishes, all kinds of primer and putty.

Surface Cleaning: Remove wax, silicon and other contaminations with degreaser


Mixing Ratio (Weight) (Volume)

2K Primer Surfacer	+	Hardener	+	Thinner
4		1		1-1.5
3		1		1-1.5
< 25℃		MAX-30		MAX-31		M-1
⩾25℃		MAX-30		MAX-31		M-2 / M-3

Pot-Life at 20℃: 1.5 hours with MAX–31 hardener


Spray Gun	Gravity Feed: 1.2–1.4mm Siphon Feed: 1.3–1.5mm
Spray Up	Conventional: 3–4 bar RP: 2.0–2.5 bar HVLP: 2.0 bar


Coats & Thickness	2–3 coats, total 50–80um
Flash–Off Time	At 20℃, 5–10 minutes between coats
Air–Drying Time	Allow 15–20 minutes air drying time before force drying

Drying Time: 4–6 hours at 20℃ or 45 minutes at 60℃

Dry sanding: P240-P400
Wet sanding: P600-P800

Re-coat: After drying and sanding, re-coat with all kinds of topcoat.

Note:
1. Clean equipments immediately after application

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 4kg

Maxytone

MAX - GT20 SpeedPrimer Plus

Substrates: Dried and sanded existing finishes, OEM panels, epoxy primer and putty.

Product Description: MAX-GT20 SpeedPrimer Plus is a highly productive 2K primer surfacer designed for the high-production shop who demands premium quality and maximum throughput with reduced cycle time. It offers easy application and sanding with excellent gloss holdout for all topcoats.
MAX-GT20 SpeedPrimer Plus can be sanded in 20 minutes by air drying or 5 minutes by force drying for spot or panel repair job. Matching with different hardener and thinner, the product can be converted to general sanding primer surfacer with fast air and force drying properties for repair job more than 2 panels, or wet-on-wet primer for new body parts.

Product Features:
1. Dry-to-sand in 20 minutes at 25°C
2. Easy to apply, high performance of filling, sealing, flow and sandiablilty
3. Excellent holdout for topcoat
4. Highly productive, improves shop throughput
5. Versatility: Suitable for rapid, standard, overall repairs, or wet-on-wet process for new parts

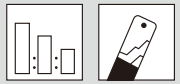
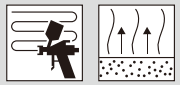
Product Technical Data Sheet

Tack Free	Rapid	Standard	Overall	Non–sanding
The amount of applicable panel(s)	1–2	3–5	6 – full body	new panels
Matched Hardener	MAX – GT201	MAX – GT201	MAX – 3641	MAX – GT201
Matched Thinner	MAX – GT202	M – 1/ – 2/ – 3		
Mixing Ratio	Weight：4:1:1.8–2 Volume：3:1:1.8–2			(Primer surfacer+8% 2k solid color): Hardener : Thinner Weight：4:1:2.5 Volume：3:1:2.5–3
Pot Life(25℃)	20 minutes	40 minutes	1.5 hours	20 minutes
Applicable Viscosity	15 –18 seconds			13 – 15 seconds
Spray gun set up	Gravity RP Spray, Feed 1.6mm – 1.8mm			Feed 1.3mm – 1.5mm
	1.8 – 2.0 bar			1.8 – 2.0 bar
Coats	Wet spray 2–3 coats			
	Thickness of paint film: 40 – 50 um			25 – 35 um
Flash Time	1 minute or no flash	2 – 3 minutes	3 – 5 minutes	1 minute or no flash
Dry to sand	20 minutes (25℃)	40 minutes (25℃)	1.5 – 2 hours (25℃)	Apply topcoat until the paint film is matte. (25℃,10 minutes)
	5 minutes (60℃)	10 minutes (60℃)	20 minutes (60℃)	

Note:
1. It is recommended to choose conventional thinner for rapid repair when temperature is over 35℃.
2. For rapid repair and spraying, mix moderate primer surfacer, spray it within 20 minutes, and then clean the spray gun immediately.
3. For the color tuning and non–sanding primer surfacer application process over new panels , the 2k solid color should be added less than 8%.

MAX–3441 Fast 2K Primer Surfacer

Characteristic: Multi-purpose double pack fast drying primer surfacer, with strong filling power, fine adhesion between coats and good sanding properties, can increase gloss and build of topcoat. The recommended application temperature is below 25℃.
Substrates: Sanded and dried existing finishes, all kinds of primer and putty.

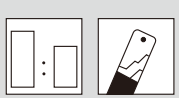
	Surface Cleaning: Remove wax, silicon and other contaminations with degreaser
	Mixing Ratio (Weight) (Volume) ≤25℃ Fast 2K Primer Surfacer + Hardener + Thinner 4 : 1 : 1-1.5 3 : 1 : 1-1.5 MAX–3441 : MAX–3641 : M–1
	Pot-Life at 20℃: 30 minutes with hardener
	Spray Gun Set Up: Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar
	Coats & Thickness: 2–3 coats, total 40–60um Flash–Off Time: At 20℃, 3–5 minutes between coats Air–Drying Time: Allow 15–20 minutes air drying time before force drying
	Drying Time: 20℃, 2–3 hours 60℃, 45minutes
	Dry sanding: P400–P600 Wet sanding: P800–P1000
	Re-coat: After drying and sanding, re-coat with all kinds of topcoat.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 4kg

Maxytone

MAX-40 1K Primer Surfacer

Characteristic: Fast drying one pack primer surfacer, suitable to cover minor defects in surface of putty or existing finish. It is easy to apply with good filling power and ease of sanding for economical refinishing.
Substrates: Sanded and dried existing finishes and putty.

	Surface Cleaning: Remove wax, grease or other contaminations with degreaser
	Mixing Ratio (Weight) (Volume) 1K Primer Surfacer + Thinner 1 : 0.8-1 Max–40 : M–1
	Spray Gun: Gravity Feed: 1.2–1.4mm Siphon Feed: 1.3–1.5mm Spray Up: Conventional: 3–4 bar RP: 2.0–2.5 bar HVLP: 2.0 bar
	Coats & Thickness: 2–3 coats, total 25–30um Flash–Off Time: At 20℃, 5–10 minutes between coats
	Drying Time: 20℃, 30 minutes
	Dry sanding: P600-P800 Wet sanding: P400-P600
	Re-coat: After drying and sanding, re-coat with all kinds of topcoat.

Note:
1. Not recommended for direct application over substrate of bare metal and wood.
2. Recommended to use 2K Primer to achieve good adhesion to substrate and excellent gloss and film build of the topcoat.
3. Not recommended to use thinner of fast drying type.

Shelf Life：2 years in original sealed can at cool and dry place at 20°C
Packaging: 4kg

MAX-50 Filler

Characteristic: Single-component putty with good filling power, fast drying, easy to apply and sand, suitable to cover small scratches, sand holes and pinholes.

Substrates: Dried and sanded existing finishes, putty, 1K & 2K primer.

	Surface Cleaning: Remove wax, silicon, or other contaminations with degreaser
	Application Method: Directly spread thin coat by coat. Flash-off time of every coat is 10-15 minutes. Application Tool: Putty knife, soft rubber or plastic spreader.
	Drying time: 20°C, 30 minutes. Allow longer drying time for thick coating.
 	Dry sanding: P400-P600 Wet sanding: P600-P800

Note:
1. Not recommended to apply over large area.
2. Not suitable for direct application over bare metals.
3. Spray topcoat directly after sanding if the application area is small. If large area, it is recommended to use 2K primer surfacer prior to topcoat.
4. Seal the can tightly after use to avoid skinning.

Shelf life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1kg

Maxytone

MAX-3520 1K Binder

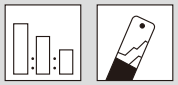
For MAX-1K metallic basecoat, able to speed up air drying time, enhance the orientation of silver & pearl particles, and improve the application property.

	Match with: Max 1K Basecoat	
Characteristic	MAX-3520 1K Binder	Used in 3-stage or 2-stage colors to speed up air drying time, enhance the orientation of silver & pearl particles, and improve the application property.
 	Mixing Ratio: 1. Addition of MAX-3520 to Max 1K metallic basecoat is 15-40% of total volume. 2. For Max 1K silver white or other light color metallic basecoat, it is recommended to use no less than 25% MAX-3520. When silver basecoat is used individually, add 40% MAX-3520. 3. In 3-stage pearl colors, add 50-70% MAX-3520 into the pearl colors accordingly. 4. For basecoat colors with low opacity, such as red pearl colors, addition of MAX-3520 should be less than 15% so as not to affect the hiding power of the paint.	

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: MAX–3520: 3.75L

MAX-3510 2K Binder

Characteristic: Resin solution used as an additive for spraying M5 2K solid colors.
It improves the gloss of the paint film.

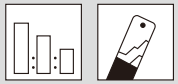
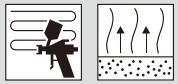
	Match with : Max 2K Solid Colors
	Mixing Ratio: Max 2K Solid Colors: MAX-3510 2K Binder= 100:0-20 Max 2K Solid Colors+MAX-3510 2K Binder : Max 2K series Hardener= 2:1

Note:
1. Do not add MAX-3510 2K Binder if the coverage of the paint is poor.
2. Do not use in 1K basecoat or clear coat.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 3.75L

MAX–810 Clear Coat

Characteristic: Double pack, it features smooth paint film and good gloss with durable resistance ton weather and pollution.
Substrates: 1K basecoat

	Surface Cleaning: Clean the dust and particles with tack cloth
	Mixing Ratio: Clear Coat + Hardener + Thinner = 2 : 1 : 0-0.1 < 18℃: MAX-810 / MAX–811 / M–1 18–24℃: MAX-810 / MAX–812 / M–1/M–2 25–30℃: MAX-810 / MAX–812 / M–2/M–3 >30℃: MAX-810 / MAX–813 / M–3
	Pot–Life at 20℃: 2 hours with MAX–811 fast hardener 3 hours with MAX–812 standard or MAX–813 slow hardener
	Spray Gun: Gravity Feed: 1.2–1.4mm Siphon Feed: 1.3–1.5mm Spray Up: Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar
	Coats & Thickness: 2–3 coats, total 40–60um Flash–Off Time: At 20 ℃, 5–10 minutes between coats Air–Drying Time: Allow 15–20 minutes air drying time before force drying
	Drying Time:

Temperature	Dust Free	Tack Free	Dry to Handle	Dry to Polish
20℃	45 minutes	2–3 hours	10 hours	16 hours
60℃	5 minutes	15 minutes	30 minutes	60 minutes

Note:
1. At temperature lower than 15℃, air–dry at ambient temperature is not recommended. Allow a full bake at 60℃.
2. At ambient temperature higher than 30℃, add Retarder Solvent into thinner to avoid blushing. Details please refer to the technical data sheet of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5–1% Anti Silicon in the paint remained and re–spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. Details please refer to the technical data sheet of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.
7. If there are particles or runs after spray, sand the affected area with P1200–P2000 sand paper after thorough drying, then polish to solve the problem.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L/4L

MAX-810 Plus Clear Coat

Characteristic: Developed with hyper branch technology, great paint flowing, high gloss and build, easy application, suitable for spots repairs and rapid repairs of large areas under low temperature.

Surface Cleaning: Clean the dust and particles with tack cloth


Mixing Ratio	Clear Coat	+	Hardener
	2		1
< 18°C	MAX-810		MAX-811
18-24°C	MAX-810		MAX-812
25-30°C	MAX-810		MAX-812
> 30°C	MAX-810		MAX-813


Spray Gun	Gravity Feed: 1.2–1.4mm Siphon Feed: 1.3–1.5mm
Spray Up	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar


Coats & Thickness	Wet spray 2 coats, spray viscosity (20°C, Ford Cup DIN 4) 16-18 seconds, film thickness: 40-60um
Flash–Off Time	At 20°C, 2-3 minutes between coats, 10-15 minutes before baking

Drying Time:

Temperature	Dust Free	Dry to Polish
10℃	40 minutes	4 hours
15℃	30 minutes	8 hours
20℃	25 minutes	12 hours
60℃		20 hours

Note:
1. At temperature lower than 15°C, air-dry at ambient temperature is not recommended. Allow a full bake at 60°C.
2. Mix the clear coat according to the proportion indicated by manufacturer. The mixture should be used up within 2 hours.
   Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
   Packaging: 1L/4L

Maxytone

MAX-1000 Standard Clear Coat

Characteristic: Medium solid clear coat, high gloss and good build, color and gloss protective power.
Substrates: 1K basecoat

Surface Cleaning: Clean the dust and particles with tack cloth


Mixing Ratio	Clear Coat	+	Hardener	+	Thinner
	2		1		0.2–0.3
< 18℃	MAX-1000		MAX-3611		M–1
18–24℃	MAX-1000		MAX-3612		M-1/M-2
25–30℃	MAX-1000		MAX-3612		M–2/M–3
> 30℃	MAX-1000		MAX-3613		M-3

Pot-Life at 25℃: 2 hours with MAX-3611 fast hardener
3 hours with MAX-3612 standard or MAX-3613 slow hardener


Spray Gun Set Up	Gravity Feed: 1.2-1.4mm Suction Feed: 1.3-1.5mm
	Conventional: 3-4 bar RP: 2.0-2.5 bar HVLP: 2.0 bar


Coats & Thickness	2-3 coats, total 40-60 um
Flash–Off Time	At 20°C, 5-10 minutes between coats
Air-Drying Time	Allow 15-20 minutes air drying time before force drying

Drying Time:

Temperature	Dust Free	Tack Free	Dry to Handle	Dry to Polish
20℃	45 minutes	2–3 hours	10 hours	16 hours
60℃	5 minutes	15 minutes	30 minutes	60 minutes

Note:
1. At temperature lower than 15°C, air-dry at ambient temperature is not recommended. Allow a full bake at 60°C.
2. At ambient temperature higher than 30°C, add Retarder Solvent into thinner to avoid blushing. For details please refer to the TDS of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5-1% Anti Silicon in the paint remained and re-spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.
7. If there are particles or runs after spray, sand the affected area with P1200-P2000 sand paper after thorough drying, then polish to solve the problem.
   Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
   Packaging: 1L/4L

MAX-2000 HS Clear Coat

Characteristic: High performance double component clear coat, high gloss, good build, strong chemical resistant, excellent color and gloss protective power, suitable for overall refinishing and spot repair.
Substrates: 1K basecoat

Surface Cleaning: Clean the dust and particles with tack cloth

Mixing Ratio

	Clear Coat	+	Hardener	+	Thinner
	2		1		0.2–0.5
< 18℃	MAX-2000		MAX-3621		M–1
18–24℃	MAX-2000		MAX-3622		M-1/M-2
25–30℃	MAX-2000		MAX-3622		M–2/M–3
> 30℃	MAX-2000		MAX-3623		M-3

Pot-Life at 25℃: 2 hours with MAX-3621 fast hardener
3 hours with MAX-3622 standard or MAX-3623 slow hardener

Spray Gun Set Up	Gravity Feed: 1.2-1.4mm Suction Feed: 1.3-1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP：2.0 bar

Coats & Thickness	2-3 coats, total 50-70 um
Flash-Off Time	At 20°C, 5-10 minutes between coats
Air-Drying Time	Allow 15-20 minutes air drying time before force drying

Drying Time:

Temperature	Dust Free	Tack Free	Dry to Handle	Dry to Polish
20℃	45 minutes	2–3 hours	10 hours	16 hours
60℃	5 minutes	15 minutes	30 minutes	60 minutes

Note:
1. At temperature lower than 15°C, air-dry at ambient temperature is not recommended. Allow a full bake at 60°C.
2. At ambient temperature higher than 30°C, add Retarder Solvent into thinner to avoid blushing. For details please refer to the TDS of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5-1% Anti Silicon in the paint remained and re-spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.
7. If there are particles or runs after spray, sand the affected area with P1200-P2000 sand paper after thorough drying, then polish to solve the problem.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L/4L

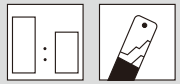
Maxytone

MAX-3511 Extra Fast Clear Coat

Characteristic: Double pack acrylic extra fast drying clear coat, easy application, good gloss, suitable for metal, solid basecoat and spot repair.

Substrates: 1K basecoat

Surface Cleaning: Clean the dust and particles with tack cloth



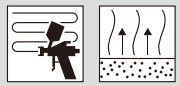
Mixing Ratio

	Primer Surfacer	+	Hardener
	2		1
<18°C	MAX-3511		MAX-811
18-30°C	MAX-3511		MAX-812
> 30°C	MAX-3511		MAX-813

Pot-Life at 25℃: The mixture should be used up within 1 hour

Spray Gun Set-up

Gravity Feed	1.2-1.5mm 3-5kg/cm2	Suction Feed	1.4-1.7mm 3-5kg/cm2
Conventional	45 minutes	2–3 hours	10 hours
HVLP	5 minutes	15 minutes	30 minutes



Coats & Thickness	2–3 coats, total 50–70um
Flash–Off Time	At 20℃, 5–10 minutes between coats
Air-Drying Time	Allow 15-20 minutes air drying time before force drying

Drying Time:

Temperature	Dust Free	Dry to Handle	Dry to Polish
20℃	30–40 minutes	120 minutes	6 days
15℃	20–30minutes	60 minutes	6 days
25℃	15–20minutes	40 minutes	6 days
60℃	5 minutes	10 minutes	80 minutes

Re-coat: Sand the affected area with P-2000 sandpaper where there are particles or runs after thorough drying, then polish to solve the problem.

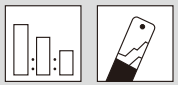
Note:
1. When temperature lower than 5°C in winter, allow a full bake at 60°C to speed up drying.
2. At ambient temperature higher than 30°C, add Retarder Solvent into thinner to avoid blushing. For details please refer to the TDS of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5-1% Anti Silicon in the paint remained and re-spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L/4L

MAX-5000 Mirror Effect Clear Coat

Characteristics: Medium-high solid two-pack fast drying clear coat with mirror effect and deep rich gloss, suitable for overall refinish and spot repair while offering durability, yellowing resistance and excellent chemical resistance.
Substrates: 1K Basecoat

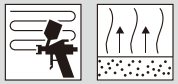
Surface Cleaning: Remove wax, silicon or other contaminations with degreaser



Mixing Ratio	Clear Coat	+	Hardener	+	Thinner
	2		1		0.2-0.4
< 18℃	MAX-5000		MAX–3671		M–1
18–24℃	MAX-5000		MAX–3672		M–1/M–2
25–30℃	MAX-5000		MAX–3672		M–2/M–3
>30℃	MAX-5000		MAX–3673		M–3

Pot-Life at 20℃:
2 hours with MAX-3671 fast hardener
4 hours with MAX-3672 standard or MAX-3673 slow hardener

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



Coats & Thickness	2-3 coats, total 40-60um
Flash-Off Time	At 20℃, 5-10 minutes between coats
Air-Drying Time	Allow 15-20 minutes air drying time before force drying

Drying Time:

Temperature	Dust Free	Tack Free	Dry to Handle	Dry to Polish
20℃	45 minutes	2–3 hours	10 hours	16 hours
60℃	5 minutes	15 minutes	30 minutes	60 minutes

Note:
1. When temperature lower than 5°C in winter, allow a full bake at 60°C to speed up drying.
2. At ambient temperature higher than 30°C, add Retarder Solvent into thinner to avoid blushing. For details please refer to the TDS of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5-1% Anti Silicon in the paint remained and re-spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.
   Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
   Packaging: 1L/4L

Maxytone

MAX-3800 Plus High Velocity Clear Coat

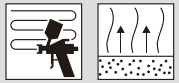
Characteristic: Double pack acrylic extra fast drying clear coat, easy application, good gloss, suitable for metal, solid basecoat and spot repair.
Substrates: 1K basecoat

Surface Cleaning: Clean the dust and particles with tack cloth

Mixing Ratio	Clear Coat	+	Hardener
	2		1
<18°C	MAX-3800		MAX-3671
18-30°C	MAX-3800		MAX-3672
> 30°C	MAX-3800		MAX-3673

Pot-Life at 25℃: Within one hour

Spray Gun Set Up	Gravity Feed: 1.2–1.4mm Suction Feed: 1.3–1.5mm
	Conventional：3–4 bar RP：2.0–2.5 bar HVLP: 2.0 bar



Coats & Thickness	2 coats, 40 um
Flash-Off Time	No flash-off time

Drying Time:

Temperature	Dust Free	Dry to Polish
10℃	30–40 minutes	120 minutes
15℃	20–30minutes	60 minutes
25℃	15–20minutes	40 minutes

Re-coat: If there are particles or runs after spray, sand the affected area with P2000 sand paper after thorough drying, then polish to solve the problem.

Note:
1. At temperature lower than 15°C, air-dry at ambient temperature is not recommended. Allow a full bake at 60°C.
2. At ambient temperature higher than 30°C, add Retarder Solvent into thinner to avoid blushing. For details please refer to the TDS of Retarder Solvent.
3. In the event of fisheyes during application, add 0.5-1% Anti Silicon in the paint remained and re-spray the affected area.
4. In the overspray area of new and existing finish, apply directly Thinner SRA to achieve an invisible transition. For details please refer to the TDS of Thinner SRA.
5. The products mixed with hardener should be used up soon and can not restore for future use.
6. Clean equipments immediately with solvent after application.
7. If there are particles or runs after spray, sand the affected area with P1200–P2000 sand paper after thorough drying, then polish to solve the problem.
   Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
   Packaging: 1L/4L

MAX 2K Series Hardener

A series of yellow resistant hardener, specially designed for 2k solid colors and clear coats. To match different products, application area and conditions, it includes various versions as standard, fast, slow drying and high solid hardener and so on.

	Match with: 2K Solid Colors MAX-1000 Standard Clear Coat MAX-2000 HS Clear Coat MAX-3800 Plus High Velocity Clear Coat

Characteristic

MAX-3611 Fast Hardener	Medium solid fast drying hardener for 2K solid colors and MAX-1000, suitable for spot repair and low temperature application below<18°C.
MAX-3612 Fast Hardener	Medium solid standard drying hardener for 2K solid colors and MAX-1000, suitable for spot repair and overall refinishing at 18-30°C.
MAX-3613 Fast Hardener	Medium solid standard drying hardener for 2K solid colors and MAX-1000, suitable for spot repair and overall refinishing above 30°C.
MAX-3621 Fast Hardener	High solid fast drying hardener for MAX-2000, suitable for spot repair and low temperature application below<18°C.
MAX-3622 Fast Hardener	High solid standard drying hardener for MAX-2000, suitable for spot repair and overall refinishing at 18-30°C.
MAX-3623 Fast Hardener	High solid slow drying hardener for MAX-2000, suitable for spot repair and overall refinishing above 30°C.
MAX-3671 Fast Hardener	High velocity fast drying hardener for MAX-5000 and MAX-3800, suitable for spot repair and low temperature application below<18°C.
MAX-3672 Fast Hardener	High velocity standard drying hardener for MAX-5000 and MAX-3800, suitable for spot repair and overall refinishing at 18-30°C.
MAX-3673 Fast Hardener	High velocity slow drying hardener for MAX-5000 and MAX-3800, suitable for spot repair and overall refinishing above 30°C.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 0.5L /1L / 4L

Maxytone

MAX Series Thinner

High quality thinner, specially developed for MAX primer, basecoat and topcoat. Available with fast, standard, slow and extra slow drying speed to match different products and different application requirements.

	Usage: To reduce the application viscosity, increase the smoothness of paint film. Good solubility.

Characteristic

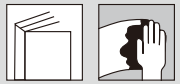
M-5 Fast	1K basecoat only, with very fast evaporation speed, suitable for spot repair or application below 15°C.
M-1 Standard	Standard thinner for 1K basecoat and 2K products, with medium evaporation speed, suitable for spot repair or application at 15-25°C.
M-2 Slow	For 1K basecoat and 2K products, with slow evaporation speed, suitable for spot repair or overall refinishing or application at 25-30°C.
M-3 Extra Slow	2K products only, with every slow evaporation speed, suitable for overall refinishing, large area application or application over 30°C.

Note:
1. If the temperature and humidity are too high, 10–30% MAX–3960 Retarder Solvent can be added.

Shelf Life: 2 years in original sealed can at cool and dry place at 20℃
Packaging: 1L/4L

MAX-3911 Degreaser

Characteristic: Able to remove grease, oil and other surface contaminants to avoid paint film defects.
Substrates: Existing finishes, primer, putty and metal.

	Mixing Ratio: Ready for use.
	Usage: 1. Clean the substrate with water to remove water–soluble contaminants and then dry it off. 2. Degrease the substrate with tack rag wetted with degreaser. 3. Wipe and dry the surface with another clean tack rag.

Note:
1. Use Degreaser before sanding to avoid oil contamination going into the sanding mark.
2. Degreaser and clean the surface again with Degreaser after sanding.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L/4L

MAX-3920 Thinner SRA

Characteristic: To dissolve the rough overspray area of new and existing finishes and achieve an invisible transition for panel repair.
Field of application: Overspray area of 2K solid colors, clear coat in panel repairs.

	Mixing Ratio: The product is ready to use. Can mix with the paint remained in the spray gun in the ratio of 1:1
	Application Method: Spray lightly one coat over the overspray area with Thinner SRA right after the finish. Second coat in 20 seconds.

Note:
1. Not suitable with 1K basecoat and primer.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L

Maxytone

MAX-3930 Anti-Silicon

Characteristic: Additive for 2K solid colors or clear coats, able to remove fisheyes or craterings on the paint film.
Match with: 2K solid colors or clear coat

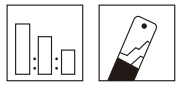
	Mixing Ratio: Paint ready for use: anti silicon = 1L : 0.5-2 tin cap (about 4-15g)
	Application Method: Spray one or two coats over the paint film with fisheyes or craterings by paint mixed with anti silicon.

Note:
1. Mix with right ratio of anti silicon. Excess addition may cause defect of small bubbles or pinholes.
2. In serious problems, fisheyes affected paint film must be sanded out and filled when it is hard dry. Refinish with paint mixed with anti silicon.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L

MAX-3940 Matting Agent

Characteristic: Used to reduce the brightness of the paint film. Good matting ability with smooth paint film. Suitable for 1K and 2K system.
Match with: 2K solid colors, clear coats and 1K basecoat



Mixing Ratio:MAX-3940 = (85-70) : (15-30)

2K topcoat:

Effect	2K topcoat	MAX-3940	Hardener
All matte	30 parts	70 parts	15 parts
Half matte(egg shell)	50 parts	50 parts	25 parts
Half bright	70 parts	30 parts	35 parts

Application Method: Refer to the technical data sheet of the matching products for proper application.

Note:
1. The matting agent is easy to crystallize when exposed to air too long. To avoid particles in the paint film, especially when applied in combination with clear coat, remove crystallized particles and other contaminations around the can rim before use and pour out with filter.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L

MAX-3960 Retarder Solvent

Characteristic: Additive to prolong volatilization of solvent. Helps to produce a quality refinishing job of good leveling and blushing-free at circumstances of high temperature, humidity or large area repair.
Match With: 1K basecoat, 2K solid colors and clear coats

	Mixing Ratio: Add 10-30% retarder solvent into M-2 or M-3 thinner when the ambient temperature is over 30°C.
	Application Method: Refer to the technical data sheet of the matching products for proper application.

Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L

MAX-3980 Quick Drier

Characteristic: Specially designed for 2K solid colors and clear coat, can speed up the dust free time and air drying time of paint film, suitable for spot repair or application at low temperature.

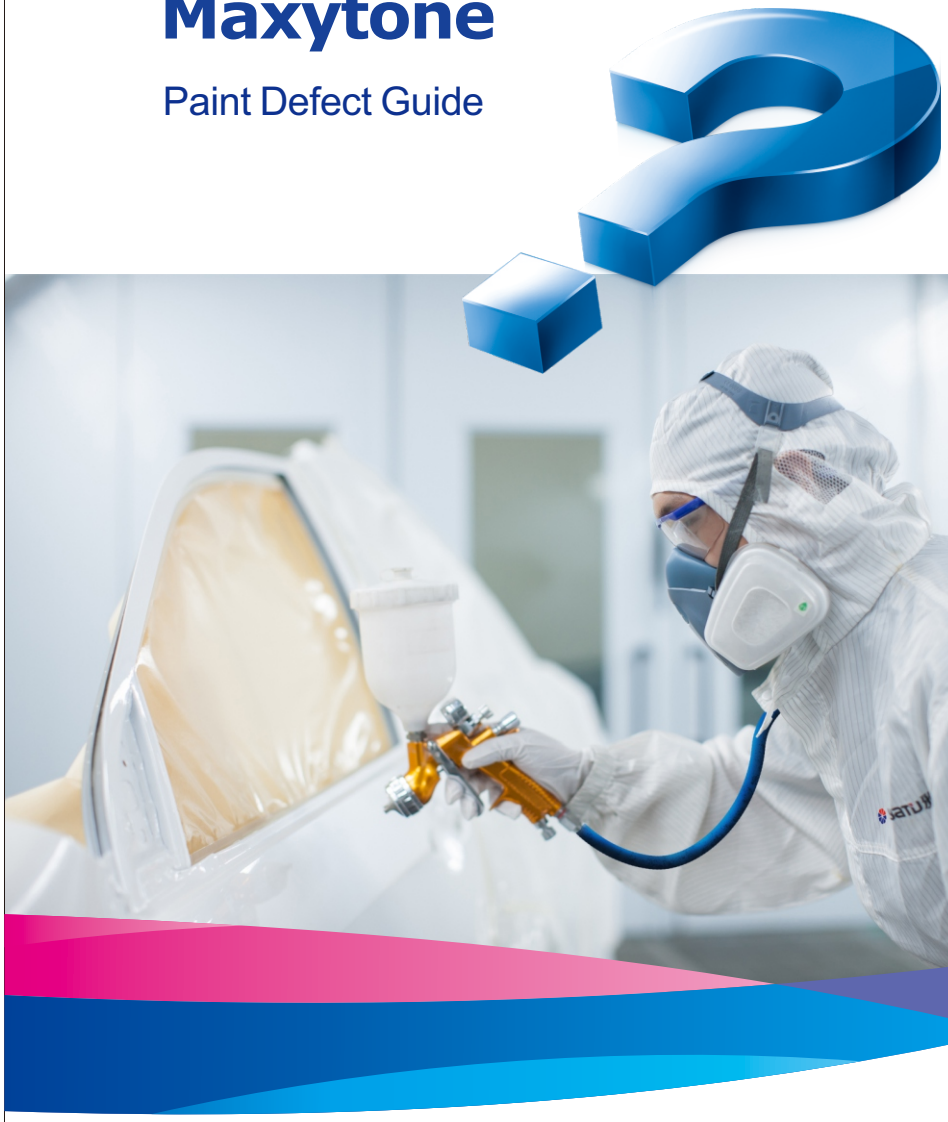
	Mixing Ratio: 1. 10-15°C: 5-6g MAX-3980 Quick Drier into 1L ready-to-spray paint; 2. 0-10°C: 6-10g MAX-3980 Quick Drier into 1L ready-to-spray paint; 3. Below 0°C: 10-15g MAX-3980 Quick Drier into 1L ready-to-spray paint.

Note:
1. Pot life of paint mixed with MAX-3980 Quick Drier would be shortened considerably, use up as soon as possible;
2. Recommended addition of MAX–3980 Quick Drier is not over than 15g for 1L ready–to–spray paint, otherwise it would cause paint film embrittlement and loss of gloss.
3. MAX-3980 Quick Drier can not be used as hardener.

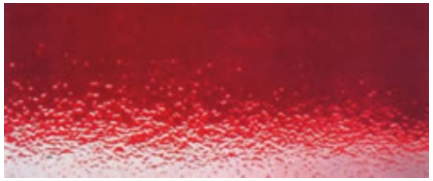
Shelf Life: 2 years in original sealed can at cool and dry place at 20°C
Packaging: 1L

Maxytone

Paint Defect Guide



Orange Peel



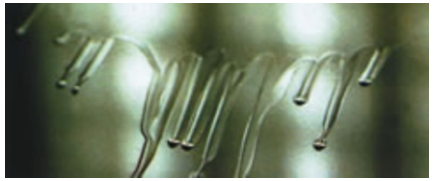
(Poor Flow, Texture)
Paint film having an uneven texture, much like the skin of an orange.

Cause
(1) The paint is under reduction. The viscosity is too high for spray conditions.
(2) Thinner/reducer evaporates too fast for spray conditions.
(3) Extreme shop temperature. When ambient temperature is too high, droplets lose more solvent and dry out before they can flow and level properly.
(4) Improper gun adjustment and techniques.
① Excessively thick or thin film, spray gun too far from surface.
②Incorrect compressed air pressure and nozzle adjustment.
(5) Improper flash-off or recoat time between coats.
(6) The substrate was not sanded thoroughly.

Prevention
(1) Reduce to proper viscosity in recommended ratio.
(2) Select recommended thinner/reducer based on temperature, humidity, air movement, and size of repair.
(3) Use proper gun adjustments, techniques, and air pressure.
(4) Ensure sufficient flash-off and drying time.
(5) Prepare and sand substrate correctly.
(6) Avoid temperature and humidity extremes. The temperature of the substrate shall be less than 50°C. Recommended air temperature is around 20°C.

Repair
(1) Compound or polish to reduce surface texture.
(2) Or, sand smooth with very fine grit sandpaper, compound and polish to restore gloss.
(3) Or, sand down to smooth surface and refinish.

Runs/Sags



Coatings that fail to adhere uniformly, causing beads, droplets, or slippage of the total film.

Cause
(1) Over reduction and/or too slow evaporating thinner.
(2) Applying paint materials without proper flash-off time between coats.
(3) Applying excessive wet coats due to:
① Holding the gun too close to the surface.
② Slow gun speed.
③ Double coating.
(4) Incorrect gun set-up and too low air pressure.
(5) Unbalanced spray pattern.
(6) Ambient or substrate temperature too low, or/and poor ventilation.
(7) Surface is contaminated by oil, grease, etc. or existing paint film is not sanded.

Repair
(1) Remove the wet paint film with solvent, clean and refinish.
(2) Or, after finish is completely dry. remove excess paint by block sanding with P1200 or finer grit sandpaper, compound and polish to restore gloss.
(3) Or, sand to a smooth surface and refinish.

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Blushing

(Milkiness)
A milky gray cloud appears on the surface of the paint film.

Cause
When spraying during humid conditions, air from the spray gun and solvent evaporation lowers the substrate temperature below the dew point, causing moisture in the air to condense in or on the paint film. The condition is aggravated when
(1) Too fast drying or poor quality thinner is used;
(2) Fanning dry the paint film to speed up solvent release;
(3) Inadequate heating and / or air movement.

Prevention
(1) Use good quality and proper thinner for spraying conditions.
(2) Add the recommended amount of retarder solvent when spraying in humid conditions.
(3) Use proper gun set-up and techniues.
(4) Ensure the paint booth is properly ventilated, adequately heated.

Repair
(1) Should blushing occur during application:
① apply heat to the affected area, or
② add retarder solvent and apply additional coats.
(2) If the finish has dried, minor blushing may be corrected by compounding or polishing.
(3)Severe cases will require sanding and refinishing.

Fisheyes

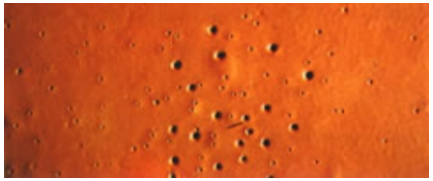
(Silicone Contamination, Cratering)
Small circular, crater-like openings in the finish.

Cause
(1) Contaminations
① Surfaces contaminated with oil, wax, silicone, grease, etc. Silicones adhere firmly to the paint film and require extra effort for their removal. Even small quantities in sanding dust, rags can cause this type of failure.
② The remains of soap, detergent in surface cleaning.
③ Use of silicone-containing polishes in proximity to the spray area.
④ Contaminated air supply, spray gun, other tools and equipments for application.
(2) spray in too high air pressure, hold the spray gun too close to the surface.

Prevention
(1) Thoroughly clean the surface with wax and grease remover.
(2) Avoid using silicone polishes in proximity to the paint shop.
(3) Install an air filtering system that removes and prevents oil and moisture contamination.
(4) Regular maintenance of the air supply.
(5) Ensure that the spray gun and compressed air equipment is properly maintained.

Repair
(1) For mild cases, respray the affected area right after the flash off time with paint added fisheye preventer.
(2) In severe cases, sand the affected area, clean thoroughly and repaint.

Pinholes



Depressions as small as pin holes or pores of the leather, appear from the top to the bottom of coatings.

Cause
Pinholes are mainly caused by solvent or moisture, gathering underneath the top layer, no way to volatilize.
(1) Excessive paint film thickness and no enough time for drying.
(2) Air trapped in putty and become pinholes after sanding.
(3) Bad choice of thinner, such as wrong ratio, bad quality, or incorrect type of dry time.
(4) Incorrect initial cleaning or other pre-treatment, lead moisture existing and bringing about pinholes in the process of evaporation.
(5) Unsuitable spray techniques, such as incorrect spray gun adjustment or too short distance to the working substrate.
(6) Insufficient flash-off time before force drying, sudden heating-up, too fast exterior drying.
(7) Too high temperature of the repair substrate itself.

Repair
(1) Sand through to putty layer, fill pinholes and redo putty works where needed, then sand smooth and continue the repair process.
(2) Pinholes or scratches in the putty surface after sanding can be filled by a thin coat of polyester putty or pinhole filler. Hold the spreader vertical to the surface so that the spreader may push the putty into the holes and does not pull it out at each stroke.

Solvent Popping

Small bubbles in the top paint film, some burst.

Cause
It is often seen that more or less moisture goes into the paint film, even in the best refinishing job. When moisture brings enough pressure to paint film, it will lessen adhesion between coats or adhesion of the whole coating to the substrate. Then small bubbles come out. It is often happens in hot, rainy or humid days.
(1) Main reason: improper preparation and cleaning of surface. Surface not completely dry after sanding or cleaning with water. Use petrol instead of recommended degreaser to degrease, its content of water soluble or foreign matters remain on the surface.
(2) No enough time for complete evaporation for solvent due to insufficient flash-off between coats or excessive coating thickness of primer.
(3) Use too fast evaporating thinner or high viscosity paints.
(4) Bad quality thinner will make the primer not dry properly. After topcoating, solvent remained in the undercoats evaporates by heat and cause poping.
(5) Insufficient flash-off time before force dry, sudden heating-up, too fast exterior drying.
(6) Too high temperature for drying.
(7) Too high air pressure of spray gun or dry spray method for applying primer.

Repair
Sand and refinish.

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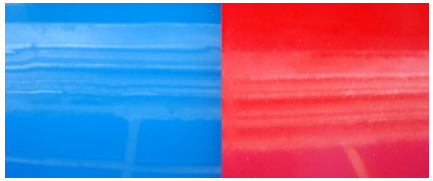
Loss Of Gloss

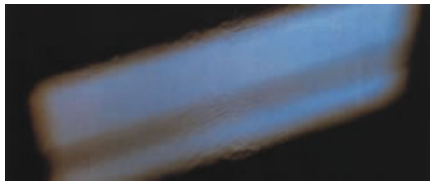


Beautiful shine of wet film but loss of gloss as the film dries or ages.

Cause
(1) Coarse substrate and rough sanding paper lead to higher absorption of top coats.
(2) Excessive thickness and roughness of silver basecoat lead to absorption of clear coat.
(3) Thick coating of putty which is not thoroughly dry.
(4) Insufficient dry of the clear coat before polish.
(5) Improper thinner ratio.
(6) Thinner choice does not match spray booth condition.
(7) Bad condition of spray booth may lead moisture trapped onto top coat:
① Insufficient air ventilation or unsuitable air circulation.
② Too hot, too cold or too humid.

Repair
Polish to improve gloss after paint film dries completely. If ineffective, sand and refinish.

Lifting / Solvent Aggression

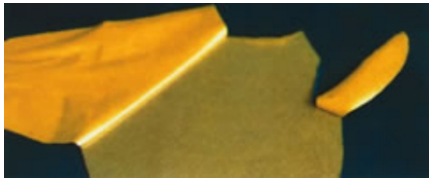


Top coat lifts the undercoat, which causes wrinkling, expanding and bubbling.

Cause
(1) Spray top coat before undercoat dries.
(2) Unsuitable flash-off time between coats.
(3) Bad solvent resistant of undercoat or too powerful solvency of top coat.
(4) Bad adhesion of undercoat.
(5) Excessive thickness of each layer.

Repair
Lightly sand the affected area and seal the surface, then re-spray; Extra care to the sensitive substrate; Keep each layer thin and flash off time long enough; If lifted seriously, completely remove the entire area and apply the paint system again.

Poor Adhesion



Bad joint between top coat and primer, or between top coat and existing paint, or between primer and bare metal.

Cause
(1) Main reason: Incorrect surface cleaning and preparation. Dust or other contaminations remained on the surface lead to poor adhesion.
(2) Incompatibility of primer and top coat or incompatibility of primer and substrate.
(3) Spray top coat before the under coat dries.
(4) Insufficient sanding or absolutely no sanding makes the substrate too smooth.
(5) Bad quality thinner and lack of solvency.
(6) Masking without the first color completely dry during dual-color application.
(7) While painting silver color, no enough flash-off time between coats or too high viscosity.
(8) Too long flash-off time between basecoat and clear coat.
(9) There is invisible water film on the primer surface when spray top coat:
① The weather is too humid while applying primer surface.
② Dry overnight os the primer in humid environment.
(10) The paint film dry too much before removal of masking may cause peel-off at the edge.

Repair
(1) In serious case, remove the existing paint and apply the color system again.
(2) If caused by the paster, re-sand the affected area and re-spray.

Poor DIO

Distinctness of Image (DIO) is a value indicates the surface quality of the paint film, which is closely related to the smoothness and gloss of the paint film. Poor DIO means bad decoration performance. DIO can be felt by vision or measured by instrument.

Cause
(1) Coarse substrate, rough sanding paper or not fine enough sanding.
(2) Paint applied runs vertically, lack of gloss, fails in fineness and opacity.
(3) Bad spray booth condition lead to particles existing on the top and lack of gloss.
(4) Bad atomization causes serious orange peel.
(5) Insufficient thickness makes lack of saturation.

Repair
Compound and polish after the topcoat is completely dry or refinish with another good quality product.

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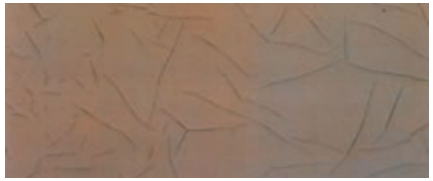
Cracking

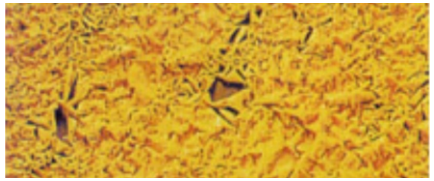


Cracks or lines of various width, length and depth exist in the coating finish.

Cause
(1) Existing cracking of the old paint film is not sanded completely before top coat.
(2) Imperfect aged existing paint which is incompatible to the refinishing system.
(3) Unsuitable substrate treatment:
① too rough sanding material.
② not clean enough.
③ improper application of body filler.
(4) Spray thermopaint onto the insufficient hardened paint film or thermoplastic acrylic coat.
(5) Cracks of putty.
(6) Excessive thickness: the thicker of the paint (especially air dried type), the lower tolerance to cold and lead to crack.
(7) The paint is not mixed well with hardener and thinner before spraying, under reduced or reduced with wrong type of thinner.
(8) Th substrate is too cold or too hot while spraying.

Repair
(1) If slight affection, re-sand the affected area and re-spray.
(2)In serious case, remove the existing paint and apply the color system again.

Wrinkling



Textured surface of the paint film with uneven wave type formation. This happens when the surface of the paint film dries faster than the substrate coats.

Cause
(1) Excessive coat thickness.
(2) Bad dry condition:
① too low or too high temperature.
② too large or too small air flow.
③ polluted air.
(3) Insufficient flash-off time, or high temperature accelerated drying, or sun exposure.
(4) Incorrect thinner: too powerful penetrability of thinner may swell to wrinkle.
(5) Too long time for some synthetic resin baking finish to dry in the air before baking.
(6) Sray polyurethane coat onto the existing nitryl paint and re-mend later.

Repair
(1) Make paint film completely dry.
(2) If slight affection, re-sand the affected area and polish.
(3) In serious case, remove the existing paint and apply the color system again.

Particles and Dust

Particles or dirt and dust in the paint surface.

Cause
(1) Faulty ceiling filters in the spray booth or baking room.
(2) Incorrect cleaning of the surface before application of the paint.
(3) Dirty packing tin and paint not adequately filtered before use.
(4) Dust in the gaps of the car body not completely blown off.
(5) Dirty spray booth.
(6) Incorrect air filtering.
(7) Dirty application area.
(8) After spraying, particles in the air drop on the paint surface.
(9) Paint deterioration.

Repair
(1) For very small particles, sand lightly with water and polish.
(2) If seriously contaminated, sand and then re-spray.

Poor Drying

The paint film could not dry thoroughly after normal necessary time and requires an extra long drying period, or fails to cure thoroughly.

Cause
(1) Incorrect mixing ratio of 2K paint (too much or less of hardener) .
(2) Unsuitable hardener.
(3) The temperature could not reach requirement. Normally speaking, when the temperature is lower than 10℃, the drying process would be excessively slow.
(4) Over-thickness of the paint film.
(5) Poor weather condition and poor ventilation.
(6) Insufficient, bad quality or wrong thinner.
(7) Incorrect application method.

Repair
(1) Increase the drying temperature to make the paint film dry thoroughly.
(2) If the paint film could not dry thoroughly even by increasing the temperature, sand or remove the paint, then re-spray.

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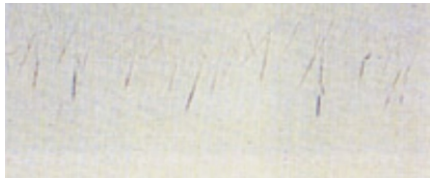
Clouding or Mottling

Uneven color or poor effect of metallic finishes due to the uneven thickness of sprayed paint and the poor distribution of silver granules.

Cause
(1) Insufficient mixing of paint.
(2) Incorrect thinner or thinner of poor solubility.
(3) Unsuitable spray viscosity.
(4) Uneven spray thickness and poor spraying technique.
(5) Insufficient flash-off time.
(6) Spray too thick or too wet.
(7) Incorrect application temperature.

Repair
(1) Further spray one coat of paint with correct technique to cover the defects.
(2) Sand and re-spray when the defected surface is thoroughly dry.

Sanding marks

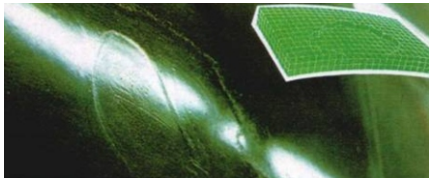


Sanding marks in the substrate show in the topcoat after paint drying.

Cause
(1) Incorrect substrate preparation: insufficient filler or poor quality and excessive coarse sanding paper.
(2) Poor sanding tools or wrong sanding method.
(3) Insufficient paint thickness of topcoat.
(4) Sand with no sanding board in flat finishes.
(5) The primer prior to topcoat is over thick and insufficient drying time for the primer.
(6) Incorrect preparation of the old existing paint finishes.

Repair
(1) Sand with extra fine paper, then polish.
(2) If the surface is seriously defected, sand, then re-spray.

Putty Marks or Edge Shrinking

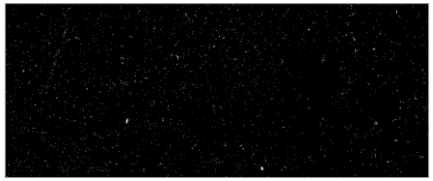


The repaired area by polyester putty or its edge showing in the topcoat.

Cause
(1) Insufficient sanding of putty.
(2) Sanding paper of wrong size.
(3) Paint absorption of putty is too serious because putty is not sealed by primer surfacer.
(4) Putty layer too thick and before over-coated, not thoroughly drying.
(5) Excessive shrinkage of putty; distortion after drying.

Repair
(1) Sand the putty layer sufficiently and ensure smooth and even edge of putty.
(2) Use primer surfacer to seal the repaired area by putty.
(3) Use putty with small shrinkage.

Paint Mist, Dry Spray



In the spray process, paint mists drop on the paint finish and make the paint finish rough, full of small particles and loss of gloss.

Cause
(1) Incorrect spray method: Spray gun too far away from the surface, not vertical to the surface, spray speed too fast, or air pressure too high.
(2) Incorrect viscosity; thinner too fast.
(3) Too near to the surface and easily affected by the paint mist.
(4) Poor ventilation of the spray booth.
(5) No covering of the part unnecessary for application.
(6) Dirty or damaged spray gun.

Repair
(1) Primer: Allow it dry, then sand.
(2) Topcoat: Fine sand the last layer of dry spray, then polish.
(3) Single layer silver basecoat: Sand and re-spray.

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Color Floating

Because the granule size, shape, density and dispersion of pigments are different, the pigments in the top layer and under layer disperse unevenly, and there is color difference in different spray layer.

Cause
Color floating relates closely with pigment convection during the formation process of paint finishes, thus incorrect manufacturing formula and technique are the main reason for this paint defect.
(1) In the manufacturing which needs more than two pigments, color floating occurs easily because solvent in the coating volatilizes differently.
(2) Excessive difference in density of different pigments.
(3) Dispersion of color paste could not reach requirement, incorrect dispersion method, or unsuitable dispersing machine.
(4) Lack of anti-floating agent.
(5) Low viscosity.

Repair
Re-spray with qualified paint over the defected paint finish.

Putty Patch or Substrate Scratches

During the paint drying process, paint finish loses gloss and the under layer defects like putty patches and substrate scratches could be seen easily.

Cause
(1) Wrong size of sanding paper and poor sanding.
(2) Substrate dry spray.
(3) Insufficient flash-off time between layers.
(4) Poor drying condition.
(5) Primer is sanded when it is not thoroughly drying.
(6) Uneven stirring of the primer.
(7) Poor solubility of thinner.

Repair
(1) For small defect, after thoroughly drying, fine sand, then polish.
(2) In serious cases, after thoroughly drying, fine sand, then re-spray.

Polyester Putty Adhesion Loss

Adhesion loss between polyester putty and the substrates.

Cause
(1) Substrate not properly prepared (main reason).
(2) Unsuitable polyester putty.
(3) Improper use of infrared baking machine.

Repair
Sand the damaged area and redo the repair. (Before application of the putty, better to clean the existing paint finishes with thinner, if the existing paint color fades, sand the existing paint finishes to ensure good substrate).

Uneven Color, Color Variation

Uneven color in part of the paint finish with streaks or patches of lighter or darker tint.

Cause
(1) Poor dispersion of paint pigments; insufficient mixing of different color paint; use thinner with poor solubility; improper viscosity.
(2) Uneven spray thickness. In thickly sprayed parts, pigments convect and make color floating.
(3) Poor spraying technique: improper overlapping, too near from the paint surface, wrong angle between the spray gun and the surface (main reason).
(4) In the application site, there is gas source able to react with paint finish, such as ammonia, or carbon dioxide.
(5) Spray tools not clean enough.
(6) Incorrect spray nozzle and spray pressure.
(7) Unsuitable thinner.

Repair
Allow the paint finish dry thoroughly, sand wet, then re-spray.

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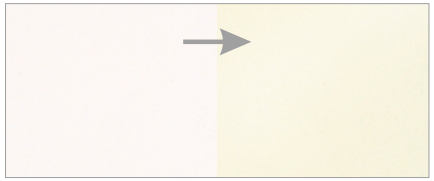
Off color, Color Mismatching

The new sprayed color of the repaired parts is different from the original color of the car being repainted.

Cause
(1) Poor color mixing technique or poor spray of spot repair.
(2) Incorrect application technique, too wet, too dry or poor coverage.
(3) Color of the mixed paint is different from the color swatch.
(4) Finish color changes under different light.
(5) Wrong color formula.
(6) Insufficient stirring of color tinter.
(7) Insufficient mixing with hardener or thinner.

Repair
(1) For small color mismatch, polish the paint finish.
(2) In serious cases, fine sand and re-spray with right formula.

Yellowing of Clear Coat



Clear coat has a yellow hue to it.

Cause
New paint:
(1) Contaminated mixing equipment.
(2) Defective clear coat or /and hardener.
Old paint:
(1) Clear coat too thin.
(2) Contaminated hardener, no cross link.
(3) Defective clear coat.
(4) Influence of corrosive conditions.

Prevention
(1) Ensure lids are tightly replaced after using hardeners.
(2) Follow recommendations per Technical Data Sheets.
(3) Use recommended hardener.

Repair
Allow the finish properly dry. Sand and repaint.

Transparency, Poor Hiding

The under coat or existing finish is visible through the topcoat.

Cause
(1) Insufficient number or/and film thickness of color coat applied.
(2) Colors not well stirred.
(3) Colors over thinned.
(4) Topcoat over compounded or polished.
(5) Substrate's color was not correct and uniform.
(6) Inadequate lighting in spray area.

Prevention
(1) Use thinner according to recommended ratio.
(2) Stir color thoroughly.
(3) Use proper undercoat.
(4) Install adequate lighting device.
(5) Compound or polish in appropriate technique.

Repair
Apply sufficient coats of color until hiding is achieved. Or sand and repaint.

Bleeding

Exiting finish color or peroxide hardener from polyester body filler seeping through the topcoat, causing a discoloration of the new finish.

Cause
(1) Solvent in the new topcoat dissolves soluble dyes or pigments in the exiting finish. This is usually true with older shades of red or maroon.
(2) Apply top coat on undercoat not thoroughly dry.
(3) Existing finish not well sealed.
(4) Use of too much hardener in the polyester putty or filler.
(5) Insufficient mixing of the polyester putty or filler.

Prevention
(1) Test existing finish by spraying a small area.
(2) Use sealer on existing finish.
(3) Mix polyester putty with recommended hardener by weight and mix thoroughly.
(4) Ensure the undercoat is properly dry.

Repair
Sand down to existing finish, isolated with proper sealer and repaint.

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Chalking

A chalky white appearance on the surface of the paint film.

Cause
(1) Pigment is no longer held and protected by resin, resulting in a powder-like surface and lack of gloss due to
① Nature weathering of the paint film;
② Use improper thinner, or/and hardener;
③ Inadequate paint film thickness;
④ Repeat exposure to harsh environment or strong sunlight.

Prevention
(1) Use recommended thinner/hardener.
(2) Avoid exposure to strong sunlight and harsh environment.

Repair
Compound and polish to restore gloss. In severe cases, sand and repaint topcoat.

Fading

Color pigments changed after exposure to prolonged sunlight.

Cause
(1) Inferior paint used for refinishing.
(2) Repeated exposure to strong sunlight or corrosive atmosphere or contaminations .
(3) Use inappropriate hardener which lower the properties of the paint film.

Prevention
(1) Use quality paint for refinishing.
(2) Protect the vehicle from bright sunlight when not in use.
(3) Keep vehicle clean and well maintained.
(4) Use recommended hardener per Technical Data Sheet.

Repair
Sand and repaint.