Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Unprimed Plastic Parts Refinishing

Area: Paint Prep

STEP 1:

Perform a substrate test. Using P600, dry sand a small area on the inside of the plastic part.
If the part powders, it must be sanded and cleaned with 4600800 Premium Waterborne Spray Gun and Surface Cleaner before proceeding to Step 2.
If substrate gums up during sanding, clean with 4600800 Premium Waterborne Spray Gun and Surface Cleaner before proceeding directly to Step 2.

STEP 2:

Scuff all surfaces (back and front) with a white or gold scuff pad along with USP90 Liquid Scuffing Agent, paying close attention to small grooves and depressions.

STEP 3:

Thoroughly rinse off the scuffing agent with clean water and completely dry the surface.

STEP 4:

Thoroughly clean the plastic substrate with FA1XPC Aerosol Plastic Anti-Static Cleaner and a gold scuff pad. Dry excess material with a clean cloth and re-apply FA1XPC Aerosol Plastic Anti-Static Cleaner, followed by wiping the part dry with a clean cloth.

Area: Spray Booth

STEP 5:

Apply 1 medium coat of Clear Adhesion Promoter UPO7228 for low VOC or UPO7229 for National Rule to the bare plastic. Allow 10 minutes to flash.

STEP 6:

Apply 1 smooth and uniform coat of P30 or P27 Primer Sealer. Allow to flash handslick before topcoating.
NOTE: For VOC Restricted areas use P27.

STEP 7:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 8:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 9:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations. Follow all mixing and application recommendations on the Product Data Sheets.

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WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For additional product information, please contact (216) 566-2917.

SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Primed Plastic Refinishing

Area: Paint Prep

STEP 1:

Solvent test factory-primer. If insoluble please proceed to Step 2. If factory-primer is soluble, remove the primer and follow the "Unprimed Plastic Parts" procedure.

STEP 2:

Clean part with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 3:

Thoroughly scuff with gray nylon scuff pad and USP90 liquid scuffing agent.

STEP 4:

Thoroughly rinse off with clean water and completely dry the surface.

STEP 5:

Re-clean the part with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.
Make sure all residue is removed.

Area: Spray Booth

STEP 6:

Apply 1 smooth and uniform coat of P30 SpectraSeal® Primer Sealer or P27 2.1 VOC Sealer to the exterior of panel. Allow Sealer to flash at least 5 minutes before topcoating. (Use P27 in Low VOC areas.)

STEP 7:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 8:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 9:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations. Follow all mixing and application recommendations on the Product Data Sheets.

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SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Blend Area Refinishing

Area: Paint Prep

STEP 1:

Clean blend areas with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 2:

Sand blend areas with P800 grit sandpaper on a random orbital sander.
Thoroughly scuff unsanded areas with gray nylon scuff pad.

STEP 3:

Re-clean with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

Area: Spray Booth

STEP 4:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved. If blending is necessary, refer to AS9801 Ultra 9K™ Basecoat Color Product Data Sheet.

STEP 5:

Allow Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 6:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations.
Follow all mixing and application recommendations on the Product Data Sheets.

SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Jambing Parts Refinishing

OEM E-Coated Parts

Area: Paint Prep

STEP 1:

Thoroughly clean part with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 2:

Scuff sand exterior of part with a gray scuff pad or DA sander using P600 on an interface pad.

Area: Spray Booth

STEP 3:

Apply 1 smooth and uniform coat of P30 SpectraSeal® Primer Sealer or P27 2.1 VOC Sealer to the edge/cut-in and exterior of panel. Apply a second coat of P30/P27 sealer to the exterior of the panel. Allow P30/P27 to flash at least 5 min. before topcoating.

STEP 4:

Apply Ultra 9K™ Basecoat Color to edge/cut-in areas.

STEP 5:

For low VOC areas apply HPC21 HP Process™ 2.1 Clearcoat. See clearcoat Product Data Sheet. For National Rule Areas HPC15 HP Process™ Clearcoat can be used over Ultra 9K™ Basecoat Color.

Painted Jambs

Area: Paint Prep

STEP 1:

Scuff sand the jamb area using a gray nylon scuff pad along with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 2:

Re-clean jamb with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 3:

Apply 1 smooth and uniform coat of P30 SpectraSeal® Primer Sealer or P27 2.1 VOC Sealer. Allow to flash at least 5 minutes before topcoating. (Use P27 in Low VOC areas.)

Area: Spray Booth

STEP 4:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 5:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 6:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations. Follow all mixing and application recommendations on the Product Data Sheets.

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SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

New Parts (Factory Primer) Refinishing

Area: Paint Prep

STEP 1:

Solvent test E-Coat. If insoluble proceed to Step 2. If E-Coat is soluble, remove E-Coat and follow "Repaired Metal Part Refinishing" procedure.

STEP 2:

Thoroughly clean part with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 3:

Remove Factory E-Coat imperfections using a DA with P600 grit sandpaper on an interface pad, minimizing any breakthrough of E-Coat to metal substrate.
NOTE: If P30/P27 Sealer was applied to the exterior of the new part in the "Jambing Parts Refinishing" procedure, sand the P30/P27 Sealer with P600 grit before topcoating.

STEP 4:

Re-clean the new part with FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

STEP 5:

Small cut-throughs in the factory coating may be treated with P30 or P27 Primer Sealer. Large areas must be treated with PE995 or E2G970 Corrosion Shield® Primer.

Area: Spray Booth

STEP 6:

Apply 1 smooth and uniform coat of P30 or P27 Primer Sealer. Allow to flash handslick before topcoating.
NOTE: If the exterior of the new part has been prepared using the "NOTE" under Step 3, no additional P30/P27 Sealer is required and can be directly topcoated.

STEP 7:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 8:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 9:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations. Follow all mixing and application recommendations on the Product Data Sheets.

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SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Repaired Metal Part Refinishing

Area: Body Repair

STEP 1:

All bodywork must be finished with P180 grit sandpaper or finer.

STEP 2:

Featheredge the repair area with P220 grit DA sandpaper, followed by P320 grit DA sandpaper. Extend the sanded area around the repair with P400 sandpaper to accommodate the primer application. Note: Thoroughly clean off then use FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.

Area: Paint Prep

STEP 3:

Treat all large areas of bare metal (5" X 5" or larger) with PE995 or E2G970 Corrosion Shield Primer.

STEP 4:

Apply 2–3 coats of P27 or P30 Primer Surfacer making sure that primer is not applied beyond P400 sand scratches. If using P27, allow a 1-5 minute flash between coats.

STEP 5:

Allow to either air dry or force dry with short wave infra-red heat - as per Product Data Sheet.
After primer has cured, apply a dry guide coat before block sanding sheet.

STEP 6:

Block-sand with P400 grit sandpaper and re-apply dry guide to repair area - Do not wet sand.

STEP 7:

Finish sand repair area with P600 grit sandpaper - Do not wet sand.
If using a DA to finish sand, an interface pad may be used.

Area: Spray Booth

STEP 8:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 9:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 10:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations.
Follow all mixing and application recommendations on the Product Data Sheets.

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SHERWIN-WILLIAMS Automotive Finishes

Best Demonstrated Practices

Achieving Color Excellence

Ultra 9K™ Waterborne Basecoat System

Notes:

- It is important to practice good inventory management of any waterborne product, as the shelf life is typically shorter than solventborne products.
- Make sure that the Ultra 9K™ Basecoat products you are using are within shelf life.
- Ultra 9K™ Basecoat products must be stored/transported at temperatures between 40°F and 90°F.
- Shelf life for Ultra 9K ™ Basecoat products is 24 months with the exception of the following products: U9176, U9174 (12 months), U9002, U9004, U9010, U9020, U9120, U9123, U9124, U9125, U9141, U9170 (18 months).

STEP 1A: PREPARING NEW TONERS FOR USE

- When replacing a toner, hand agitate packaging for ~ 45 sec.
- Use a new valve each time you replace a toner.

STEP 1B: DAILY TONER MAINTENANCE

- Before use, hand agitate packaging for ~ 10 sec.
- Use the Dispensing Extender to dispense paint.

STEP 2: SELECTING THE BEST FORMULA

- The color selection/verification process, including paint sprayout panels, should be completed while the vehicle is in the "tear-down" phase of the repair planning process.
- Before mixing the color use the Color Access formula retrieval system and the GCB – Global Color Box system. A Colorator® color match rating tool can be used if necessary.
- Enter the color code of the vehicle and/or vehicle manufacture information into the Color Access system. On the Select Formula By Paint Code page, formulas are listing in Standard / Variant order. Simply click on the Standard or Variant formula and note the chip number listed in the Color Box section of the screen. Locate the deck and chip in the GCB system and take this deck to the vehicle.
- Polish and clean the area to be evaluated. Place the chip (or chips) out of the GCB deck against the vehicle and access the color match. Select the chip that best matches the vehicle.
- Note: Assess the color match in full sunlight or by using a color corrected light. View the color at all angles from left to right and from up to down. Pay special attention to sidetones. You cannot blend a color with a bad sidetone!
- Then go back to the Color Access Software and select the formula for the chip that best matches the vehicle.
- If there is no color chip available, then mix the formula for the color code (Step 3) and prepare a sprayout panel and verify color (Step 4).
- If there is no color code for this vehicle, or the vehicle has been refinished with a different color, go directly to the Sherwin-Williams Color Map Books, and select a chip that best represents the vehicle color.
- NOTE: Before mixing the color review your sprayout library and custom formulas to determine if a better formula already exists. All sprayout cards need an appropriate 2K clearcoat applied to assure color match to the vehicle. Store the completed panel in a sprayout library cabinet or binder for protection.

STEP 3: MIX COLOR

- Select the amount of material needed for the size of the repair.
- Use the Dispensing Extender to dispense the correct amount of toner shown on screen.
- NOTE: If excess air is present in the container, place it on top of the Dispensing Extender with the valve open and press down slightly until air no longer comes out.

SHERWIN-WILLIAMS Automotive Finishes

STEP 4: PREPARE A SPRAYOUT PANEL AND VERIFY COLOR

During the repair planning process it is recommended that a sprayout card is prepared with color, appropriate 2K clearcoat, and proper labeling to support all blend decisions. Always use the Sherwin-Williams Colorator® Color Match Rating Tool during the color verification process. All sprayout cards are to be labelled with a printed label from the Color Access formula retrieval system and filed in a sprayout library cabinet or binder for future reference.

NOTE: To determine the number of coats required to duplicate the GCB - Global Color Box chip, specific gun settings are required per the Sherwin-Williams spraygun selection charts. The vehicle must be refinished using the same gun settings and technique for consistent color alignment.

- All colors must be viewed under equal gloss. Polish the adjacent panels to those being refinished or blended.
- Always use natural sunlight or "color corrected" lights when comparing the vehicle color to the sprayout.
- Always compare the sprayout from ALL angles – head-on (face) and side tone (flop).
- Use the Colorator® Color Match Rating Tool to help determine a good match to the vehicle.
- Using the Colorator® - Place the sprayout in the middle window of the Colorator® and apply to the vehicle. Can you see a difference in color when viewing the sprayout compared to the vehicle at the 5 mm gap? If the answer is YES, then compare the sprayout versus the vehicle at the 25 mm gap. Can you see a difference here? If the answer is NO, then the formula is a blendable match to the vehicle and the repair can be completed. If the answer is YES, then the formula may need to be adjusted, ask yourself: "The car is what compared to the sprayout?"

  Examples:

  Darker or Lighter

  More Green, More Red, More Blue, or More Yellow

  More Saturated or Less Saturated
- Three-stage formulas always require a let-down panel to determine how many coats of mid coat are necessary.

  Note: You cannot blend a color with a bad side tone!

STEP 5: ASK YOURSELF:

"WHAT IF ANYTHING ADDITIONAL WILL BE REQUIRED TO MEET CUSTOMER/INSURANCE COMPANY QUALITY EXPECTATIONS?"

- Nothing: Refinish following the Sherwin-Williams Best Demonstrated Practices.
- Tinting: Tint following standard color adjustment practices, and re-evaluate color match quality.
  » When tinting, ask yourself: "The car is **what** compared to the paint?"
  The answer to "**what**" will tell you which direction to adjust the color.
  » Be sure to use the Ultra 9K™ Tinting Guide AS9802 to help you select the correct toner for tinting.
- Blending: Properly prepare and blend adjacent panels per Sherwin-Williams BDP blending policy.

COLOR AND TECHNICAL HOTLINE: 1-800-798-5872

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Best Demonstrated Practices

Waterborne Basecoat Intermix Color (U9K)

Ultra 9K™ Waterborne Basecoat System

PRODUCT DESCRIPTION

The Ultra 9K™ Waterborne Basecoat is one of the most user friendly waterborne systems on the market. Perfected in the lab and proven in the shop this innovative basecoat is well-suited for dealerships, multi-shop owners and premium collision centers.

SURFACE PREPARATION

1. Sealer: Final sand repair area with P400-P600 grit or finer sandpaper.
2. Primer Surfacer: Final sand primer surfacer with P600 grit sandpaper. Dry sanding of the primer surfacer is recommended on a random orbital sander - Do not wet sand the primer surfacer.
3. Blend Panels: Sand with P800 grit sandpaper on a random orbital sander.
4. Solvent clean with appropriate Sherwin-Williams® surface cleaner and wipe dry with a clean cloth.

SUITABLE SUBSTRATES

- OEM Finishes
- Aged Refinishes
- P27/P30 Primers and Sealers

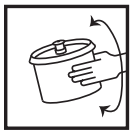
NR CLEARCOATS

- HPC15 - HP Process Clearcoat
- CC200 - Dynamic Clearcoat
- 1100755 - Elegance Clearcoat
- 1100727 – Matte Clearcoat

COMPLIANT CLEARCOATS

- HPC21 - HP Process Clearcoat
- 1100757 - Performance Clearcoat
- 1100755 - Elegance Clearcoat
- 1100751 – Elegance Plus Clearcoat
- 1100727 – Matte Clearcoat

MIXING



- Use a new valve each time you replace a new toner.
- When replacing a toner, hand agitate packaging for ~ 45 sec. **Only hand agitate ULTRA 9K™** Toners.
- Before use hand agitate toner package for 10 sec. before dispensing.
- Use the Dispensing Extender to dispense paint.

1	+	10%
Ultra 9K™ Basecoat Color		U9R1 Standard Reducer

- Recommended Potlife of reduced Ultra 9K™ basecoat is 5 days.
- Incorporate reducer into Ultra 9K™ Basecoat with a plastic stir stick. **Hand stir only.**
- Refresh container and filter when using material previously reduced or stored material.

NOTES

- Recommended strainer: 125 micron.
- Do not add fisheye eliminator to Ultra 9K™ Basecoat Color.
- 5 minutes after dropcoat application, increased airflow (i.e. Venturi) can be applied.
- Ultra 9K™ Basecoat Color may be dry sanded after dehydration with P800 grit or finer sandpaper to remove imperfections. Apply additional basecoat to sanded areas prior to clearcoating.
- Refer to Ultra 9K™ toner shelf life and storage recommendations.

GRAY SHADES

If a gray shade undercoat is recommended, you must use as directed in Color Access™ to ensure proper color match.

SHERWIN-WILLIAMS Automotive Finishes

Best Demonstrated Practices

Waterborne Basecoat Intermix Color (U9K)

BASECOAT APPLICATION

- There are two different application methods for Ultra 9K™ basecoat.
- See individual methods for application instructions below.
- Adhere to the outlined spray gun settings for optimal sprayability and color match.
- Dehydrate basecoat till hand slick prior to dropcoating.
- Dehydrate basecoat till thumbtwist prior to clearcoating.
- Refer to the Ultra 9K™ spraygun chart for individual Spraygun settings

For additional information and details by repair scenario please refer to the Ultra 9K™ Best Demonstrated Practices.

WET-ON-WET APPLICATION METHOD

Preferred application method; provides better metal control, speed, ease of application and material transfer.

- Tack Coat (as needed)
- Dehydration
- 1st coat: Full Wet Coat (Coverage Coat)

  -- No Dehydration – Immediately followed by
- 2nd Coat: Medium Wet Coat (Orientation Coat)

  Note: Back spray gun 2" as compared to 1st full coverage coat.
- Dehydration (hand slick)
- Drop Coat

  Note: Double distance, half the pressure

Troubleshooting

Blotchy after 1st coat - Proceed with orientation coat

Streaky after 1st coat - Dehydrate and repeat 1st full coverage coat

Blotchy after orientation coat - Repeat orientation coat

Do not correct metal control with multiple dropcoats

OPTIONAL APPLICATION METHOD

Recommended for black solid colors, large repair sizes, and high humidity conditions.

- Tack Coat (as needed)
- Dehydration
- 1st coat: Medium Wet Coat (Coverage Coat)

  Dehydration (hand slick)

  2nd Coat: Medium Wet Coat (Orientation Coat)

  Note: Maintain spray gun distance to allow for sufficient wetting.
- Dehydration (hand slick)
- Drop Coat

  Note: Double distance, half the pressure

Troubleshooting

Blotchy after 1st coat - Proceed with orientation coat

Streaky after 1st coat - Repeat 1st coverage coat

Blotchy after orientation coat - Repeat orientation coat

Do not correct metal control with multiple dropcoats

BASECOAT RECOAT

- Apply recommended Sherwin-Williams® Premium Clearcoats over Ultra 9K™ Basecoat Color once fully dehydrated.
- To avoid surface contamination it is recommended to clearcoat Ultra 9K™ Basecoat Color within 24 hours, preferably same day.
- Beyond 24 hours it is advised to remove and reapply.

Best Demonstrated Practices

Waterborne Basecoat Intermix Color (U9K)

DRYING SCHEDULE

Dehydration times between coats of base and base to clearcoat are dependent on temperature, humidity, and airflow. The use of Venturi and heated air diffuser equipment will shorten flash times. Ultra 9K™ basecoat color must be hand slick in between coats of color and thumb twist dry prior to clearcoat.

- **Hand Slick** - When a finger is dragged lightly across the paint film and no marks are left behind on the painted surface.
- **Thumb Twist** – Apply moderate pressure with a thumb and rotate or twist the thumb adjacent to the repair panel (i.e. masking tape) Note the reaction of the paint film - if no movement of the film is observed, this is considered passing.

NOTE: Higher humidity will extend flash times. Lower humidity will shorten flash times.

TACK COAT

It is recommended that a tack coat be applied prior to coverage coats. The application of this tack coat is threefold:

1. To reveal irregularities on the surface
2. As a "grip coat" for the wet on wet double coat to lay into
3. For faster coverage

Apply a tack coat on all sanded areas. This would include a refinish panel or a blend panel in the event a blender is not used.

BLENDER

1
Ultra 9K™ U9020
Basecoat Additive

+

10%
U9R1
Standard Reducer

- The blender once reduced at 10% with U9R1 has a potlife of 5 days.
- Incorporate reducer into Ultra 9K™ U9020 with a plastic stir stick. Hand stir only.
- Recommended strainer: 125 micron.
- Refresh container and filter when using material previously reduced or stored material.

BLENDER APPLICATION

- Apply one full even wet coat of blender.
- Dehydrate blender till hand slick.
- Refer to the Ultra 9K™ Spraygun Chart for individual spray gun settings.

PERSONAL PROTECTION

- Read label, directions, and MSDS before use and refer to MSDS for specific information
- Wear a NIOSH approved organic vapor respirator when using this product
- Wear a NIOSH approved dust particulate mask when sanding, mixing or applying this product
- Keep product, paint and overspray off of the skin, wear goggles, coveralls, and chemical protective gloves when using this product.

LABEL CAUTION INFORMATION

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Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Repaired Aluminum Part Refinishing
Using PE995

Area: Body Repair

STEP 1:

Solvent test OE coating by the repair area. If insoluble, proceed to Step 2.
If soluble, either remove coating or prepare to prime the complete panel.

STEP 2:

All bodywork must be finished with P180 grit sandpaper or finer.

STEP 3:

Featheredge the repair area with P220 grit DA sandpaper, followed by P320 grit DA sandpaper. Extend the sanded area around the repair with P400 sandpaper to accommodate the primer application.

STEP 4:

Thoroughly clean off, then use FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.
NOTE: Assign DA(s) with an interface pad and sanding discs to be used specifically on aluminum. Do not allow equipment and sanding materials used on other metal substrates to intermix with aluminum repairs!

Area: Paint Prep

STEP 5:

Apply 2–3 coats of PE995 Corrosion Shield™ LCF Etching Primer (National Rule or Low VOC options) making sure that primer is not applied beyond P400 sand scratches.

STEP 6:

Allow PE995 to dry at least 15 minutes before applying a Primer Surfacer or Sealer.
NOTE: A Primer Surfacer or Sealer must be applied before topcoating with color.

STEP 7:

Apply 2–3 coats of P27 or P30 Primer Surfacer or Sealer making sure that primer/sealer is not applied beyond P400 sand scratches. If using P27, allow a 1-5 minute flash between coats. If using P30, no flash necessary — not to exceed 2 minutes.

STEP 8:

Block-sand with P400 grit sandpaper and re-apply dry guide to repair area.

STEP 9:

Finish sand repair area with P600 grit sandpaper. If using a DA to finish sand, an interface pad may be used.

Area: Spray Booth

STEP 10:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 11:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 12:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations.
Follow all mixing and application recommendations on the Product Data Sheets.

See Safety Data Sheet and Labels for additional safety information and handling instructions. Safety Data Sheets for the products contained on this Product Data Sheet can be located at www.sherwin-automotive.com. Products shall not be repackaged, modified, blended, or tinted except as specifically instructed by Sherwin-Williams, including but not limited to the incorporation of non Sherwin-Williams products or the use or addition of products in proportions not specified by Sherwin-Williams. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.**
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For additional product information, please contact (216) 566-2917.

SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Basecoat System

Best Demonstrated Practices

Repaired Aluminum Part Refinishing
Using NP75

Area: Body Repair

STEP 1:

Solvent test OE coating by the repair area. If insoluble, proceed to Step 2.
If soluble, either remove coating or prepare to prime the complete panel.

STEP 2:

All bodywork must be finished with P180 grit sandpaper or finer.

STEP 3:

Featheredge the repair area with P220 grit DA sandpaper, followed by P320 grit DA sandpaper. Extend the sanded area around the repair with P400 sandpaper to accommodate the primer application.

STEP 4:

Thoroughly clean off, then use FA1XSC Surface Cleaner or for VOC restricted areas use 4600800 Premium Waterborne Spray Gun and Surface Cleaner.
NOTE: Assign DA(s) with an interface pad and sanding discs to be used specifically on aluminum. Do not allow equipment and sanding materials used on other metal substrates to intermix with aluminum repairs!

Area: Paint Prep

STEP 5:

Apply 2–3 coats of NP75 Primer Surfacer making sure that primer is not applied beyond P400 sand scratches.

STEP 6:

Allow to either air dry or force dry with short wave infra-red heat - as per Product Data Sheet. After primer has cured, apply a dry guide coat before block sanding.

STEP 7:

Block-sand with P400 grit sandpaper and re-apply dry guide to repair area.

STEP 8:

Finish sand repair area with P600 grit sandpaper. If using a DA to finish sand, an interface pad may be used.

Area: Spray Booth

STEP 9:

Apply Ultra 9K™ Basecoat Color until desired coverage is achieved.

STEP 10:

Allow the Ultra 9K™ Basecoat Color to flash 15–30 minutes or until fully dehydrated before clearcoating (thumbtwist).

STEP 11:

Apply one of the Sherwin-Williams Automotive Finishes Premium Clearcoats - check local VOC regulations.
Follow all mixing and application recommendations on the Product Data Sheets.

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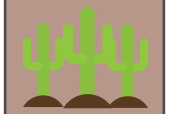
SHERWIN-WILLIAMS Automotive Finishes

Ultra 9K™ Waterborne Refinish System

Extreme Heat and Low Humidity Recommendations

Please use the recommendations below when encountering extreme high heat and low humidity conditions. These recommendations are being issued in addition to spraygun chart AS9804 and product data sheet AS9801.

Extreme Heat/ Low Humidity



Temp: 100°F+

Humidity: <10%

Spray Gun Settings

Selecting your spraygun: HVLP vs. Compliant

Warm-dry conditions could require an adjustment in the painters' spray gun or technique, but in extreme conditions further action may be required.

When using a H.V.L.P. spray gun and adjusting to a 1.4mm tip size, sprayability will improve, however for best results in extreme conditions, (100°F+ with less than 10% humidity), a compliant spray gun with 1.4mm tip size would be preferred, especially if these extreme conditions are experienced frequently based on geographical location.

Please contact your local training center or technical sales representative with further questions.

Spraygun	Model	PSI Coverage / Orientation Coat	Gun Distance Coverage Coat*	Gun Distance Orientation Coat	PSI Dropcoat	Dropcoat Gun Distance	Fluid Turns out	Fan Setting	Tip size
Iwata	Entech	20-24*	6 - 8 "	8 - 11"	14	10 - 12 "	Full Open	1.5 - 2 turns closed	1.4
Iwata	EVO	24-28*	6 - 10 "	9 - 13 "	14	10 - 12 "	Full Open	1.5 - 2 turns closed	1.4
Sata 5000	HVLP	24-28*	4 - 8"	7 - 11 "	14	11 - 15 "	Full Open	Full Open	1.4
Sata 5000	RP	24-28*	8 - 10 "	11 - 13 "	14	14 - 18 "	Full Open	Full Open	1.4
Tekna Prolite	TE20	22-26*	8 - 11"	9 - 12 "	14	13 - 15 "	Full Open	Full Open	1.4

* Only decrease pressure if the wetting of the basecoat needs to be further improved after the correct tip size has been selected.

Application Recommendations in Extreme Heat / Low Humidity Conditions

- Along with optimizing your spraygun settings pay attention to application speed and panel distance as both affect the wetting of the basecoat.
- Always apply the basecoat wet-on-wet in these extreme conditions, with no flash in between coats, with the exception of black solid colors where a single coat application is required.
- Application of tack coat is optional in these extreme conditions.
- Follow reduction recommendations using Ultra 9K reducer U9R1 listed in product data sheet AS9801 (1:10%).

Use of Blender in Extreme Heat / Low Humidity Conditions

When to use Blender:

- The use of blender is required in these extreme conditions. Incorrect use can manifest itself in a mottled/blotchy appearance within the blending zone due the incorrect orientation of metallic and or pearl particles which is magnified after clearcoat application.

Two-Gun Method:

- Please note that two spray guns will be needed when applying at these extreme conditions. One for the application of the blender and one for the application of the basecoat.

Spray Gun Settings and reduction ratio:

- Apply blender reduced at 10%, following standard spraygun settings (larger tip sizes can cause over application of blender).

Blender before Coverage Coats:

- Apply one uniform coat of blender 4-6" from the edge of the panel you are blending into.
- Apply your coverage coats wet-on-wet into the blender using it as a wetbed. Do not let the blender fully dehydrate.

Blender before Dropcoat:

- Once your coverage coats have fully flashed, apply one uniform coat of blender, extending 2-3" beyond your coverage coats.
- Apply your dropcoat into the blender using it as a wetbed. Do not let the blender fully dehydrate.

Solid Colors / 3-Stage Colors (solid layers):

- The use of blender is not required for solid colors.

Ultra 9K™ SPRAY GUN SETTINGS

AIR PRESSURE SETTINGS

These are recommended starting points using the spray guns listed. Due to inconsistencies that exist between various brands of Air Pressure Regulators, these recommended pressures may need to be adjusted based on the specific equipment your are using. It is important to select spray guns according to your spray environment.

SPRAY GUN DISTANCES

Use the below spray gun distance ranges as starting points based on your spray conditions.

- For dry conditions (< 20% RH), the lower end of the listed distance range is recommended.
- For humid conditions (> 55% RH), the higher end of the listed range is recommended.

Spray Gun	Model	PSI Coverage/ Orientation Coat	Gun Distance Coverage Coat*	Gun Distance Orientation Coat	PSI Dropcoat	Dropcoat Gun Distance	Fluid Turns Out	Fan Settings	Tip Size		
Iwata	Entech	24	6-8″	8-11″	14	10-12″	Full Open	1.5-2 Turns Closed	1.3	1.4	1.4
Iwata	EVO	28	6-10″	9-13″	14	10-12″	Full Open	1.5-2 Turns Closed	1.3	1.4	1.4
Sata 5000 /5500	HVLP	28	4-8″	7-11″	14	11-15″	Full Open	Full Open	1.3	1.4	1.4
Sata 5000 /5500	RP	28	8-10″	11-13″	14	14-18″	Full Open	Full Open	1.3	1.4	1.4
Tekna Prolite	TE20	26	8-11″	9-12″	14	13-15″	Full Open	Full Open	1.3	1.4	1.4
Tekna	7E7	22	8-11″	9-12″	14	13-15″	3 Turns Open	Full Open	1.3	1.4	1.4
DeVilbiss	DV1	20	8-11″	9-12″	14	13-15″	Full Open	Full Open	1.3	1.4	1.4

COOL AND HUMID**
Temp: 60-68°F
Humidity: >55%

MODERATE WEATHER
Temp: 68-95°F
Humidity: 20-80%

HOT/WARM AND DRY
Temp: 85+°F
Humidity: <20%

* If applying a single coat application with full dehydration in between coats. Please refer to "coverage coat" gun distances.
** In "Cool and Humid" conditions a 1:2 fluid tip may be preferred for small repairs.

NOTE:

- A dirty or worn nozzle set/air cap will not produce the results of a clean, properly maintained one.
- For questions regarding the correct spray equipment for your environment, please contact your local Sherwin-Williams Automotive Finishes Technical Representative for assistance.