

2006 Application Guide



manufacturer of custom automotive paints

Application Guide

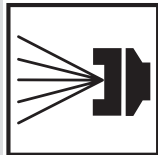
Updated May, 2005. Supercedes all previous versions. Visit www.autoaircolors.com for additional product information.

Auto Air Colors™ is a durable paint intended for use as base coat and graphic paint for automotive finishes and other exterior applications. Auto Air Colors are meant to be top coated with a durable, urethane clear. Auto Air Colors™ are compatible with all urethane, waterborne and water-based paint systems. For use with lacquer and enamel paint systems, test first.

Conditions

Recommended painting conditions: 70° F or higher in a dry, dust-free environment. When painting in humid or colder conditions, allow for extended drying time. Use of warm moving air, a heat gun or infra-red lamp is recommended to decrease cure time. Air source should be free of contaminants, especially oil and water.

Set-Up



Spray Gun Size: 1.2mm : 35-40+ psi, pressure settings may vary, adjust for optimum atomization.

Auto Air Colors™ work best with set ups that allow for increased air pressure and smaller sized nozzles & needles. For smaller spray guns/ touch-up guns, use a 0.8mm to 1.0mm size needle & nozzle. Spray Gun should be at optimum distance from substrate to best utilize its spray pattern's atomization. Follow spray gun manufacturers recommendation for distances.

Airbrush Size: 0.5mm : 40-50+ psi

0.3mm: Transparent Colors thinned with Auto Air Reducer approx 300% or more (3 Reducer : 1 color)

0.2mm: Transparent Colors thinned with Auto Air Reducer approx. 500% or more (5 Reducer : 1 color)

To improving atomization when using an airbrush, Auto Air Reducer may be used to thin paints. Often, colors are reduced up to 400% (Auto Air Reducer 4:1 Auto Air Color) when using an airbrush. Mix ratios may vary per color and Color Series. Exact ratios are not required.

Materials



A 4 oz. bottle of Auto Air Color will generally cover 3 square feet.

For motorcycles: 1 quart and 1 pint
Medium to large vehicle: 2 1/2—3 quarts

For complete paint jobs: Small vehicle: 2 quarts
Full size truck or SUV: 1 gallon

Preparation



Proper preparation is crucial to ensuring a successful paintjob. Prepare surface using normal custom painting methods with attention to the following:

Clean surface thoroughly, before and after sanding. Use a solvent based degreaser/ panel wipe.

Scuff: Over primed surfaced, use 800 grit wet & dry paper/scuff pad or coarser.

1. When applying graphics over urethane finish which serves as base color for Auto Air Colors, scuff with 800 grit wet & dry paper to avoid large scratches.

2. Sanding and/or scuffing needs to completely remove any gloss points from the surface. Close attention needs to be made with crevices, edges, folds and other areas that are difficult to sand with broad strokes.

Primers



Auto Air Colors™ are compatible with all urethane, waterborne and epoxy automotive primers. Use of a sealer is not necessary when working over substrates other than exposed, untreated metal as the 4000 Series Base Coat Sealers may be used as the sealer.

Metal – Use urethane or epoxy primer over any areas with exposed, untreated metal to prevent corrosion. Use of urethane sealer over a catalyzed urethane primer is not necessary. Instead use 4000 Series Base Coat Sealers.

Plastics – Use of an adhesion promoter necessary when working over plastics which have an oily composition. Scuff thoroughly removing all gloss. An adhesion/tape test is the best method to determine whether an adhesion promoter is necessary.

Aluminum – Apply 4000 Series Base Coat Sealer direct to substrate after scuffing.

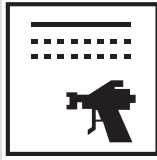
Urethane, Enamel and Lacquer Finishes – Auto Air Colors™ may be used direct to existing any cured finish, urethane, lacquer, enamel and others. Apply 4000 Series Base Coat Sealer direct to substrate after scuffing. If using finish as base color for graphics with Auto Air Colors, use direct to finish after scuffing with 800 grit wet & dry paper without use of Base Coat Sealer.

Fiberglass - Apply 4000 Series Base Coat Sealer direct to substrate after scuffing.

Carbon-fiber - Apply 4000 Series Base Coat Sealer direct to substrate after scuffing.

After-market Panels – Apply 4000 Series Base Coat Sealer direct to substrate after scuffing. Coat any exposed metal with a urethane or epoxy sealer.

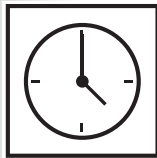
Application and Dry Times



3 Coats – The majority of the colors achieve coverage in 3 coats; 1 light coat followed by 2 medium coats. Avoid wetted coats. 4200 Series Transparent and 4600 Series Candy Colors require working in lighter coats than other color series and require an additional coat(s). See specific color series technical sheets for further information.

Apply the first coat lightly. – Apply the first coat of Auto Air Colors™ as a light coat, similar to a guide coat. The second and third coat may be applied with more material create an even finish. Avoid wet coats with excess material build-up. Applying a wet coat over a wet coat which has not dried significantly increases drying times.

- Initial coats have a speckled appearance. Additional coats fill in coverage producing even finish. Final coat should fill in field of color and create an even finish.
- Working in light coats is important to ensuring successful results. A light coat of a water-based paint is much thinner than a light coat of urethane paint. Do not try to get total coverage from one coat. Avoid overly wet coats. Overly wetted coats may cause pigment to migrate causing a “fish-eye” effect. The last coat should be applied with more material to create an even finish
- There are no time windows when working with Auto Air Colors™. Additional coats may be applied at any time once the underlying coat has dried. Additional coats may be done within minutes of the last coat or several days may pass before the next coat is applied without the need to sand or scuff.



Recoat Time:

Booth conditions- Generally 1-3 minutes.

Open conditions- Generally 5-10 min., depending on humidity levels. Use of moving air and/or heat will reduce recoat time. Allow coat to dry prior to application of next coat. Curing each coat with heat is recommended but not necessary if colors are applied with adequate dry time in between coats and final finish is completely cured prior to taping or clearing. When air curing, avoid applying wet coat over wet coat. Allow each coat to dry prior to applying next coat.

Mid-Coats: Use of 4004 Transparent Base as mid-coat prior to taping by protect colors from markings during taping. Transparent Base also serves as a filling coat over large pearl and metal flaked colors prior to clearing.

- Apply 1 – 2 coats after curing underlying paintjob.
- Humid conditions: use of a urethane mid-coat (colorless urethane binder) may work best instead when protecting colors prior to taping in high humidity conditions to avoid tracking due to excessive moisture rewetting paint.
- Transparent Base used as a filling mid-coat over large pearl-flaked and metal-flaked colors prior to clear coat application. Use over 4400 Series Gem Color-Shift™ Colors and 4500 Series Hot Rod Sparkle™, Cosmic Sparkle™ and Sparkle Flake™ Colors prior to clearing.
- Use 4004 Transparent Base as a protective mid-coat prior to taping over 4600 Series Candy Colors. If Candy Colors are thoroughly cured and conditions are dry with low humidity levels, use of the mid-coat not necessary.

Spot Repair



Before attempting spot repair, make sure paint is thoroughly cured.

- 1.) Sand paint off failed area. Use coarse dry paper, do not wet sand.
- 2.) Sand paint past failed area insuring all failed paint is removed.
- 3.) Begin repairing by painting sanded area first. Apply enough coats to completely cover.
- 4.) After filling in sanded area, blend by painting entire panel or extended area surrounding repair.

Curing



Auto Air Colors can be cured in a spray booth with air movement, by infrared heat lamps, or a heat gun

Curing in Spray Booth- A spray booth is the preferred environment for painting vehicles with the Auto Air Colors. Bake paint at 120-150°F for 15-20 minutes or until colors are completely dried.

For quicker drying times, increase airflow rate and booth temperature. Colors may be cured in excess of 300°F.

Curing in Open Conditions- Recommended minimum temperature 70°F and low humidity. Curing Auto Air Colors™ in humid or cold damp conditions may require extended exposure to heat. Use airflow to speed up drying time. Cure when colors are wet or dry.



- Auto Air Colors™ are cured with heat and/or airflow. Use heat gun or infra-red lamp to cure colors. If not curing with heat, allow colors ample time to dry prior to taping or clear coat application. Drying time will vary depending upon environment.
- In Infra-red lamp (IR) – allow lamp to cure colors at a safe distance generally over 12 inches to prevent blistering paint. Duration may vary from 5 – 30 mins. due to coat build-up, wetness and environment. Cure colors dry to the touch without tack.
- A heat gun is effective when curing smaller areas such as body panels, tanks, fenders, helmets, etc. Generally colors cure 1-2 minutes per square foot. Keep heat gun moving and at a safe distance of 6” or more to avoid blistering. Cure colors dry to touch without tack.

Taping



When used correctly, Auto Air Colors™ will not peel when taped. Most types of tape work excellent. For transfer tape, use a high tack tape.

Tape Time:

Air dry only: 1 – 6 hours, depending upon room temperature, humidity levels and proper application of colors namely allowing individual coats to dry prior to application of the next coat.

Booth conditions: without heat but airflow: 30 min. to 1 hr.

With heat: varies but dry times are greatly decreased allowing taping sooner. In ideal conditions (heat applied directly to painted surface), colors may be taped within 10-20 minutes.

Helpful Tips for Masking and Taping.

1.) Use of 4004 Transparent Base as Mid-Coat prior to taping.

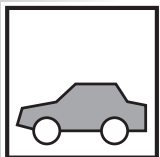
Use of Transparent Base or a urethane mid-coat/ inter-coat clear over base color prior to taping allows for easier application as overspray may be removed without marking colors. Application of mid-coat also allows tape to better adhere to Auto Air Colors. The mid-coat creates a less-textured surface upon which masking material, fine-line tape and low-tack tape can better lay down without lifting (not peeling the paint up, but the tape lifting off the surface). Use of urethane mid-coat recommended when taping in high humid conditions to avoid tape tracking.

2.) Recoat With Base Colors- To create a cleaner, crisper edge along the tape line, apply another coat of base color prior to applying graphics color. Auto Air Colors™ porous texture creates spaces between the tape and surface which subsequent coats may crawl into, creating a bled edge. Additional coat of base color fills in open spaces under tape, creating a crisper line when the graphic color is applied.

Cleaning

Before clearing, use a low solvent based degreaser to remove any dust, particulates, smudges or fingerprints that may be on the painted surface. Do NOT clean with water.

Clearing



Auto Air Colors are compatible with all urethane clears. Some colors may dry to a textured, porous surface. Applying multiple tack coats creates an even film upon which wet coats may be applied. Use a slower activator/ hardener to allow for more reflow & self-leveling, allowing clear time to soak into paint. There are no time window limitations to follow when applying the clear. Once the Auto Air Colors™ have been cured with heat, the clear may be applied.

When clearing over large flaked colors such as 4400 Series Gem Color-Shift™ Colors and 4500 Series Colors, use of a high solids clear is recommended to bury the pearl flakes with few coats of clear than what would be required with a low-build clear.

Application of 4004 Transparent Base as mid-coat prior to urethane clear application is recommended to create a smooth surface for clear coat, especially with larger flaked colors such as Hot Rod Sparkle™, Sparkle Flake™, Gem Color-Shift™, etc.

a) Start with 1 light tack coat. Allow 10-15 minute flash time.

b) Apply wet coats. Follow clear manufacturer's instructions. Do not mix clear outside of manufacturer's specifications without testing first for compatibility, i.e. do not add extra amounts of reducer when clearing Auto Air Colors even though such a mixture may work over a urethane paint.

Equipment Clean Up

Use Auto Air Cleaner or Restorer as directed on label for best removal and maintenance of spray equipment when using Auto Air Colors.

Safety

Although Auto Air Colors™ contain 0.1 VOC, the user or any persons who may be exposed to the airborne particulates are required to wear a NIOSH/MSHA approved respirator. Protect from contact with skin or eyes. Use standard safety and handling procedures to minimize potential hazards. See Material Safety Data Sheets for complete safety and handling information.