

Hard Surface & Automotive Application Guide



This guide covers:

- Basic set-up and application information for using Createx paints in an automotive process, base-coat to top-coat clear. For product information, refer to Technical Data Sheets at creatextech.com.
- Use of Auto Air Colors, Wicked Colors and Illustration Colors, generally referred to as “Auto Air”.

Specifications are set with 4030 Balancing Clear added to all paints except AutoBorne Sealer.

Optimum painting conditions: Temperature 70°F / 21°C and 50% Relative Humidity

- Allow for extended drying times when temperatures are lower
- Use 4011 for temperatures over 80°F and arid conditions
- Add 4020 to 4011 or 4012 in cooler or more humid conditions
- Avoid temperatures lower than mid 50°F (11°C) and over 90 (33°C)

Preparation

This guide covers a general Three-Step paint process starting with a primed substrate or existing finish that is ready for paint.

Initial Sanding:

- OEM Finish: 320-grit dry / 500-grit wet sandpaper
- Bare Metal & Body Filler: 80-grit sandpaper
 - Must seal metal to prevent corrosion: direct to metal (DTM) primer recommended
- Final sand AutoBorne Sealer – not required
 - Optional sand dry 600- to 1000-grit sandpaper
- Clean oils or dirt after sanding

1. START WITH AUTOBORNE SEALER

Set-Up

- Spray Gun: 1.3-1.4mm, 22-25 psi
- Airbrush: large volume and tip-size, +0.5mm, 27-30+ psi
- Dilute: 5-10% 4012, allow mix 10+ minutes to acclimate before spraying

Substrates

Direct to existing finishes, primers and cured paint

- Most any substrate: Aluminum, wood, fiberglass
- Steel: To prevent corrosion, wipe first with phosphoric acid or apply DTM primer
- Plastic: Excellent adhesion to most plastics

For hard-to-paint plastics, apply either:

1. 6000 Transparent Sealer, or
 2. 7040 Adhesion Promoter
 - a. Activate 7040 by adding 4016 Cross-Linker 2% per vol., then dilute 5% 4012
 - b. Apply one medium coat for complete coverage with minimal excess build
 - c. Allow 15 minutes before applying top-coat color. See 7040 Technical Data Sheet for more.
- Glass: Apply 7040 Adhesion Promoter

Application

- Direct to surface prepared by scuffing 320- to 800-grit
- Apply medium coats with a 50/50% over-lapping spray pattern
- No one coat should cover completely, allow color to fill-in with subsequent coats
- 3 coats required for complete coverage with 6001 White, 6002 Grey and 6003 Black
- Other sealer colors may require additional coats

AutoBorne Sealer Drying Times

- Dries matte approximately 10 minutes
- Allow each coat to dry matte before applying next coat
- Allow 30 minutes air drying before applying Createx paint
- Allow 60 minutes before taping

2. MID-COAT / COLOR COATS

Apply Createx paint over AutoBorne Sealer

- Sanding AutoBorne Sealer prior to paint is not required
 - If applying primer other than AutoBorne Sealer, prep first 600-800 grit dry
- AutoBorne Sealers can be dry sanded to remove imperfections
 - 800-1000 grit dry works best to remove minor texture before paint
 - Allow colors to thoroughly dry so paint shaves finely and doesn't roll-up in sandpaper
- Cleaning generally not required
 - If cleaning paint, allow colors a minimum of 30 minutes to dry
 - Use odorless mineral spirits or a post-sanding solvent-based degreaser

Set-Up

Add 4030 Balancing Clear to color, then thin with 4011 or 4012.

Reduction Temperature Chart		
4011	4012	4020
80+ deg. F (27+ deg. C)	60 – 80 deg. F (16 – 27 deg. C)	Add to 4011 / 4012 in humid or cold conditions

Refer to spray gun manufacture for best set-up. This guide's spray gun tip-size and psi information is general.

Transparent & Fluorescent Colors

1. Mix color 3:1 4030 Balancing Clear, then
2. Thin 5-10% per volume 4011 / 4012
3. Allow mix 10+ minutes to acclimate before spraying
 - Spray Gun: 1.2mm, 26-29 psi
 - Mini-Gun: 0.8-1.0mm, 26-29 psi
 - Airbrush: 0.3-0.5mm, 30-35+ psi

➡ **All fluorescent colors fade as the pigment's decay is what make it fluoresce.
Apply fluorescent colors over color-keyed AutoBorne Sealer Base to hide fading.**

Pearlized & Metallic Colors

1. Mix color 3:1 4030 Balancing Clear, then
2. Thin 5-10% per volume 4011 / 4012
 - Use of 4011 when spraying in higher temperatures greatly improves flow and orientation, helping to prevent mottling and texture
3. Allow mix 10+ minute to acclimate before spraying
 - Spray Gun: 1.3mm, 26-29 psi
 - Mini-Gun: 1.0 -1.2mm, 26-29 psi
 - Airbrush: 0.5mm, 27-33+ psi

Set-Up (contd.)

- Apply pearl color over color-keyed AutoBorne Sealer Base
- Silvers and aluminums work over 6002 Sealer Black, 6003 Grey and 6013 Silver Sealer
- Gold, apply over an AutoBorne Sealer base made by mixing 6004 Yellow 1: 6011 Tan

candy₂O

candy₂O is a concentrated dye that needs to be mixed with 4030 Balancing Clear for all applications. Please read our candy₂O Technical Data Sheet before using for the first time.

Spray Gun (large panel application)

1. Mix 4030 Balancing Clear 3:1 candy₂O, then
2. Thin 5-10% 4011
3. Allow mix 10+ minutes to acclimate before spraying
4. Tip-size: 1.1-1.2mm
psi (inlet): ~27-29 psi

Mini-Gun (small panel, helmet size)

1. Mix 4030 Balancing Clear 1:1 candy₂O
 - 4030 can be added in greater amounts for improved color control, same as full-sized gun
2. Thin 5-10% 4011 / 4012
3. Allow mix 10+ minutes before spraying
4. Tip-size: 0.8-1.0mm
psi (inlet) ~27-29 psi

Airbrush

1. Mix 4030 Balancing Clear 30-50% per volume with candy₂O
 2. Thin 5-10% 4011 / 4012
 3. Allow mix 10+ minutes
 4. Tip-size: Any,
psi: 20-30
- 4040 Bleed Checker prevents dyes from leaching into top-coated colors and top-coat clear. Apply 4040 over candy₂O to “lock down candy₂O”, especially helpful when painting and taping graphics
 - candy₂O can be mixed with any color, including pearls and metallic colors for candy-pearl colors

Application

Proper atomization is important for a smooth finish, as well as, achieving best drying times and coating development.

- Well atomized paint should hit the surface in fine droplets that are wetted
- Follow the spray gun manufacturer’s recommendations for ideal fan pattern and distance from surface
- Avoid over-atomizing paint by applying at too high a pressure / psi setting.
 - Over-atomized paint leads to texture, especially in metallics
 - Over-atomized paint applied too far a distance and dry onto the substrate does not adhere well

Apply medium coats with a 75% overlapping pattern

Allow coats to dry matte before applying next coat. On average, this is a 10-minute re-coat time. The quickest time to tape and clear is achieved by allowing each coat to dry matte and tack-free.

No time windows. Auto Air may be top-coated with paint or clear any time after cured, even after extended periods.

Application (contd.)

Sanding colors is not required before top-coating with paint or clear.

- If sanded, apply additional coats of color to hide scratches before applying clear
- When thoroughly dried, colors shave well using 800- to 1000-grit sandpaper

Average coats required for complete coverage. Refer to TDS for specific color information

- 3 coats should be required for opaque colors
- 5 - 6 coats for transparent colors
- Pearlescent, Metallic and Sparklescent Colors:
 - 2-3 coats over a color-keyed AutoBorne Sealer
 - 3-5 coats over white / black sealer base.
- candy₂O may take 6-9 coats

Clean colors with post-sanding, solvent-based degreaser

- Cleaning is not imperative. Auto Air is not susceptible to trace oils.
- Allow colors to thoroughly dry before using cleaner
- Odorless mineral spirits may also be used to clean paint
- Use a lint-free rag meant for water-based paint

Drying Times

At spec'd 70°F / 21°C and paint properly atomized, general times are:

- Re-Coat: 10-15 minutes
- Tape: 45-60 minutes
- Top-Coat Clear: 60-90 minutes

More important than strict adherence to drying times is watching how paint is drying, forming the coating. Allowing each coat to dry before applying next coat is the quickest time to tape and clear, as well as best to achieving a fuller cure cycle in each coat.

Extra drying time, if needed, allows paint to dry to a harder coating, for less surface tension, allowing clear to flow-out.

3. TOP-COAT / CLEAR

For exterior and automotive applications, a durable clear must be applied over the paint as the top-coat.

Automotive refinishing: top-coat with a solvent-based, 2k (catalyzed) urethane clear

- Auto Air is universally compatible with solvent-based, urethane paints and clears
- Use a medium / slower reducer. Avoid clears with fast-curing reducers and activators.

Sign, outdoor architectural and other durable paintjobs onto hard-surface may be top-coated with a wide variety of clear types. Createx SSR Clears are an excellent top-coat clear for exterior application of any Createx Colors paint.

Createx SSR Clears are a water-based aliphatic, urethane-acrylic clear with exceptional adhesion, chemical resistance and durability.

- SSR Clears are available in 7130 Clear, 7131 Matte and 7132 Satin
- SSR Clears are not recommended for automotive refinishing.

Top-Coating (contd.)

Activate SSR Clear with Cross-Linker

- 4015 – nonflexible substrates
- 4016 – flexible substrates
- Add 4015 / 4016 2% per volume
- Refer to SSR and 4015 / 4016 Technical Data Sheet for more

Auto Air Colors are generally compatible with most any type of clear, both water-based and solvent-based.

Compatible clear types include:

- Urethane / polyurethane
- Acrylic
- Enamel
- Nitrocellulose lacquer
- Polyester – apply 6000 AutoBorne Transparent Sealer over colors to lock-them down

Top-Coating – Powder Coat

A low bake, sub 400°F / 205°C powder coating may be applied over Auto Air Colors

4. HEALTH & SAFETY

Read Cautions and Warnings on all product can labels.

Safety Data Sheets (SDS) available at www.creatextech.com.

Application variables are a major factor in product performance.

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