



DuPont Automotive Finishes

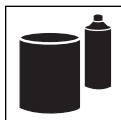
ChromaClear® 4700S™ UltraProductive (Hyper Cure™ -Air Dry)

Description

ChromaClear® 4700S™ is not only the world's fastest air dry/express bake clear, it also revolutionizes energy savings and productivity, without sacrificing appearance. This 4.2 VOC three-component clearcoat can be used for spot, multi-panel and overall repairs of OEM base/clear finishes. **This product eliminates the typical 30 minutes x 140°F baking step normally required to process clearcoat. It air dries in 1.5 hours at 70°F, or if rapid out of dust is required, the clear can be express baked using a 10 minute cycle and setting the booth temperature at 120°F. Finally, the energy savings alone makes this clearcoat more profitable to use than any other clear, including generic clears.**

ChromaClear® 4700S™ is also easy to spray and it buffs (if needed to remove dirt) readily after 1.5 hours air dry. When ChromaClear® 4700S™ is mixed with ChromaPremier® reducers and activator (ChromaClear® 4505S™ or 4507S™) according to the volume ratio 3:1:1, this product can be applied over ChromaSystem™ basecoats.

General Information



Components

ChromaClear® 4700S™ Clearcoat
 ChromaClear® 4505S™ Low Temp. Activator
 ChromaClear® 4507S™ Regular and High Temp. Activator
 DuPont ChromaSystem 19301S™ or ChromaClear® 7601S™ Blender

Reducers for 4.2 lbs./gal. VOC:

ChromaPremier® 12365S™ Fast Reducer
 ChromaPremier® 12375S™ Medium Reducer
 ChromaPremier® 12385S™ Slow Reducer
 ChromaPremier® 12395S™ Very Slow Reducer

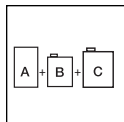
@ 4.2 lbs./gal. VOC

Application Temp.	70°F	80°F	90°F	100°F
ChromaPremier® Reducer	12365S™	12375S™	12385S™	12395S™

Tips for Success

For optimum appearance it is important to choose the correct ChromaPremier® Reducer for the temperature range (see above). Also, allow the sealer to flash for 20 min. before applying basecoat to ensure solvent release. If application enhancement is desired, use 1-2 oz. of DuPont 19379S™ Application Enhancer per ready-to-spray quart of activated clearcoat.

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Mix Ratio/Viscosity

Combine the components either by volume or weight, then mix thoroughly.

For 4.2 lbs./gal. VOC

	Volume	Weight (cumulative qt.)
ChromaClear® 4700S™ Clear	3	548 grams
ChromaClear® 4505S™ or 4507S™ Activator	1	748 grams
ChromaPremier® 12375S™ Medium Reducer	1	908 grams

With ChromaPremier® 12365S™ Fast Reducer, total is 909 grams

With ChromaPremier® 12385S™ Slow Reducer, total is 904 grams

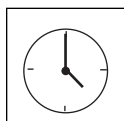
With ChromaPremier® 12395S™ Very Slow Reducer, total is 915 grams

Viscosity

15 - 17 seconds in a Zahn #2 (DuPont M-222) cup.

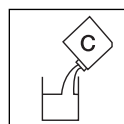
Tips for Success

Use mixing stick for accurate measurements.



Pot Life

1 hour at 70°F.



Additives

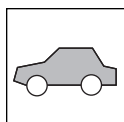
Application Enhancer: DuPont 19379S™; use 1-2 ounces per ready-to-spray quart. This additive will also extend pot-life, may improve appearance, and can be used to reduce clearcoat hardness under high temperature and high humidity application conditions.

Accelerator: MasterTint® 389S™; use 1/4 - 1/2 ounce per ready to spray quart. Use of accelerator may lead to dieback.

Fish Eye Eliminator: DuPont 459S™; use 1/4 - 1/2 ounce per ready-to-spray quart.

Flex Additive: Add 2 oz. Plas-Stick® 2350S™ per ready-to-spray quart of activated clearcoat or use Plas-Stick® 2350S™ as described below.

@ 4.2 lbs./gal. VOC	Volume	Weight (cumulative qt)
ChromaClear® 4700S™	9	450 grams
ChromaClear® 4507S™ Activator	3	617 grams
Plas-Stick® 2350S™ Flex Additive	1	668 grams
ChromaPremier® 12375S™ Reducer	3	805 grams

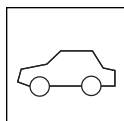


Basecoats

ChromaBase®

ChromaPremier®

Application



Substrates

ChromaBase®

ChromaPremier®

DuPont 222S™ Mid-Coat Adhesion Promoter for blend areas

ChromaClear® 4700S™ UltraProductive (Hyper Cure™ -Air Dry)



Surface Preparation

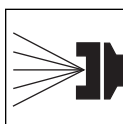
For application over a properly prepared basecoat

- Mask the entire vehicle to prevent overspray from sticking.
- Allow basecoat to dry 15 - 30 minutes prior to clearcoat application.
- Extend basecoat dry time to 30 minutes when applying several base color coats, tri-coat colors, or in cooler shop conditions.



Gun Setups 4.2 VOC

<i>Conventional</i>	Gravity	1.3 mm - 1.6 mm (.051" - .063")
	Siphon	1.4 mm - 1.8 mm (.055" - .070")
<i>HVLP</i>		1.3 mm - 1.4 mm (.051" - .055")



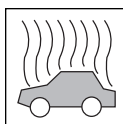
Air Pressure 4.2 VOC

<i>Conventional</i>	35 - 45 psi @ the gun
<i>HVLP</i>	8 - 10 psi @ the gun cap



Application

Apply 2 full coats.



Flash/Dry Times

Do not use IR heat. It may cause the clearcoat to solvent pop.

<i>Air Dry</i>	<u>For Optimum Appearance</u>
Flash between Coats:	7 - 10 minutes
Dust Free:	15 - 20 minutes
Time to Handle (Assemble):	1.5 - 2 hours
Time to Polish:	1.5 - 2 hours*
Time to Stripe:	1.5 - 2 hours
Time to Deliver:	1.5 - 2 hours
Time to Decal:	24 hours

***Although the clearcoat may fingerprint slightly at 1.5 hours, it will polish very well.**

Express Dry

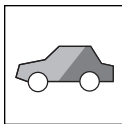
Flash between coats:	7 - 10 minutes
Flash before Force Dry:	0 minutes
Cycle Time:	10 min X 120°F (booth temp.)**
Dust Free:	out of express dry
Time to Handle (Assemble):	30 - 45 minutes
Time to Polish:	30 minutes
Time to Stripe:	1 hour
Time to Deliver:	45 minutes
Time to Decal:	24 hours

Examples for optimum bake cycles:**

Application Temp (ambient)	Bake Cycle (min)	Approx. Final Part Temp
70°F	10 min x 120°F	110°F
80°F	10 min x 120°F	115°F
90°F	10 min x 120°F	120°F

** If ChromaClear® 4700S™ is baked at higher temperatures than described above, dieback may occur.

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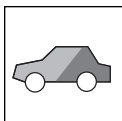
Blending

Panel repair is the approved procedure for clearcoat warranty repairs. This allows the refinisher to attain the recommended film builds. If the refinisher chooses to blend, use ChromaSystem 19301S™ Blender. Since this blender is higher solids, it is crucial to maintain air pressure (20 - 25 psi) when using this versus a blender like ChromaClear® 7601S™ where air pressure is typically reduced (10 - 15 psi) during application.

- Carefully taper the second coat of clear beyond the first
- After the final coat of clearcoat, step-out the coating by mixing 1 part ChromaSystem 19301S™ Blender to 1 part of the remaining clearcoat and taper the blend with the resulting mixture.
- After the final coat of clear has been blended with the mixture of ChromaSystem 19301S™ and clearcoat, further reduce the mixture and use the same gun to finish melting-in the edge

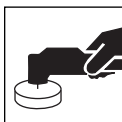
Tips for Success

For sail panel blending, be sure DuPont 222S™ is applied beyond the intended clearcoat area.



Recoatability/Re-repair

ChromaClear® 4700S™ UltraProductive Clearcoat may be recoated 1 h @ 90°F or 2h @ 70°F air dry. If the clear is force dried, wait 1 hour. If recoating after 24 hours, scuff sand with 1200 - 1500 grit. Also, use activated basecoat (ChromaBase® or ChromaPremier®).



Sanding, Compounding, Polishing

Optimum Times

Express Dry:	45 min. after cool down
Air Dry:	1.5 - 2 hours

Sanding

Use 1500 grit wet or finer or use a foam interface pad with P1500 DA or finer.

Compounding

Use finishing compound. Apply a thin ribbon of material to the area to be polished. Use a double-sided wool polishing pad. Maintain air polisher or variable speed buffer at 1800 - 3000 rpm. Remove excess finishing compound with a clean soft cloth prior to applying finishing polish.

If you can only use a foam pad, try a 3M white foam pad and use 3M Extra Cut Perfect-it III rubbing compound. Further, if you would like the clear to be softer, add 1 - 2 oz Plas-Stick® 2350S™ Flexible Additive or 1 - 2 oz DuPont 19379S™ Application Enhancer per ready-to-spray to moderate hardness.

Polishing

Use finishing polish (shake well before using). Apply a ribbon of material to work a 2 - 3 foot square area. Use a foam pad or a terry cloth cover. Maintain a variable speed buffer or an orbital polisher at 1200 - 1800 rpm. Keep the polisher/buffer moving at all times. Overlap each pass approximately 50%. As finishing polish begins to dry, stop polishing. Wipe off excess finishing polish with a clean soft cloth. Hand buff with a clean soft cloth as a finishing touch.

Tips for Success

- Always use clean water to wet sand and add a few drops of soap to help clear the paper.
- Always use a foam interface pad when DA sanding.
- Do not use medium to heavy-duty compounds. Use clean cloths and pads to insure that the clear does not get scratched with dirt particles from old or re-used cloths or pads.
- Do not wax for the first 120 days after painting.

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Physical Properties

@ 4.2 lbs./gal. VOC

Theoretical Coverage:	655 sq. ft. per ready-to-spray gallon at 1 mil
Weight Solids:	47.6% ready-to-spray
Volume Solids:	40.86% ready-to-spray
Recommended Dry Film Thickness:	2.0 - 2.4
Flash Point:	See MSDS

VOC Regulated Areas

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing and usage recommendations in the VOC Compliant Products Chart for your area.

Safety and Handling

Before using any DuPont product, be sure to read all safety directions and warnings. WEAR A POSITIVE-PRESSURE, SUPPLIED AIR RESPIRATOR (NIOSH TC-19C), EYE PROTECTION, GLOVES AND PROTECTIVE CLOTHING WHILE MIXING ACTIVATOR WITH PAINT, DURING APPLICATION AND UNTIL ALL VAPORS AND SPRAY MISTS ARE EXHAUSTED. Follow respirator manufacturer's directions for respirator use. INDIVIDUALS WITH HISTORY OF LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES SHOULD NOT BE EXPOSED TO THIS PRODUCT. Do not permit anyone without protection in the painting area. This product is intended for industrial use only by professional, trained painters.

