



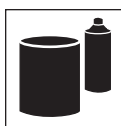
DuPont Automotive Finishes

ChromaBase® “4 to 1” Multi-Mix Clearcoat Customization

Description

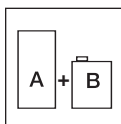
The unique design of ChromaBase® “4 to 1” clearcoats allows customization of clearcoat performance to meet the customer’s needs. The customization of clearcoat performance allows customers to build their own clears to suit their individual needs. The clearcoat attributes, such as appearance, productivity, and time to buff can be changed by mixing varying proportions of ChromaClear® 7779S™ and ChromaClear® HC-7776S™ and activating 4:1 with ChromaBase® “4 to 1” Activator Reducers.

General Information



Components

DuPont™ ChromaClear® HC-7776S™ Multi Mix Snap Dry Clear
 DuPont™ ChromaClear® 7779S™ Multi Mix Panel and Overall Clearcoat
 ChromaBase® “4 to 1” 7765S™ Activator-Reducer: (60° F-70° F)
 ChromaBase® “4 to 1” 7775S™ Activator-Reducer: (70° F-80° F)
 ChromaBase® “4 to 1” 7785S™ Activator-Reducer: (80° F-90° F)
 ChromaBase® “4 to 1” 7795S™ Activator-Reducer: (90° F-100° F)



Mix Ratio/Viscosity

For customization of attributes, ChromaClear® 7779S™ and ChromaClear® HC-7776S™ can be combined in any proportion and then activated 4:1 with ChromaBase® “4 to 1” activator-reducers.

The key clearcoat mix combinations or “sweet spots” are given below.

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

3 parts ChromaClear® 7779S™ to 1 part ChromaClear® HC-7776S™ to 1 part ChromaBase® “4 to 1” 77X5S

| | Volume | Weight (cumulative qt) |
|-----------------------------|--------|------------------------|
| ChromaClear® 7779S™ | 3 | 521 grams |
| ChromaClear® HC-7776S™ | 1 | 692 grams |
| ChromaBase® “4 to 1” 77X5S™ | 1 | 881 grams |

(X=6,7,8 or 9)

This corresponds to mixing 3 parts 7779S™ and 1 part HC-7776S™ and then activating 4 to 1 with Chromabase® “4 to 1” activators.

This combination provides excellent appearance with significantly enhanced bake and air dry productivity over 7779S™.

Particularly suitable for customers wanting to air dry 7779S™.

ChromaBase® “4 to 1” Multi-Mix Clearcoat Customization

2 part ChromaClear® 7779S™ to 2 part ChromaClear® HC-7776S™ to 1 part ChromaBase® “4 to 1” 77X5S

| | Volume | Weight (cumulative qt) |
|-----------------------------|---------------|-------------------------------|
| ChromaClear® 7779S™ | 2 | 347 grams |
| ChromaClear® HC-7776S™ | 2 | 690 grams |
| ChromaBase® “4 to 1” 77X5S™ | 1 | 879 grams |

(X=6,7,8 or 9)

This corresponds to mixing 1 part 7779S™ and 1 part HC-7776S™ and then activating 4 to 1 with Chromabase® “4 to 1” activators.

This combination provides excellent overall balance of appearance and speed.

Significantly better appearance than HC-7776S™

1 part ChromaClear® 7779S™ to 3 part ChromaClear® HC-7776S™ to 1 part ChromaBase® “4 to 1” 77X5S

| | Volume | Weight (cumulative qt) |
|-----------------------------|---------------|-------------------------------|
| ChromaClear® 7779S™ | 1 | 174 grams |
| ChromaClear® HC-7776S™ | 3 | 687 grams |
| ChromaBase® “4 to 1” 77X5S™ | 1 | 876 grams |

(X=6,7,8 or 9)

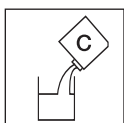
This corresponds to mixing 1 part 7779S™ and 3 parts HC-7776S™ and then activating 4 to 1 with Chromabase® “4 to 1” activators.

This combination provides excellent speed (air dry and bake) with significantly better appearance over HC-7776S™.

Improves application latitude of HC-7776S™ in the summer time.

Viscosity

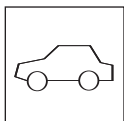
15 - 17 seconds in a Zahn #2 (DuPont M-222) cup.



Additives

Flex Additive: Add 2 oz Plas-Stick 2350S™ Flexible Additive per ready to spray quart of clearcoat.

Fish Eye Eliminator: DuPont 459S™ or 659S™: Use 1/4 or 1/2 oz per ready to spray quart of clear coat.



Basecoats

ChromaBase® Basecoat

ChromaPremier® Basecoat

Application

Substrates

ChromaBase® Basecoat

ChromaPremier® Basecoat

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

ChromaBase® “4 to 1” Multi-Mix Clearcoat Customization



Surface Preparation

For application over a properly prepared basecoat repair:

- Mask the entire vehicle to prevent overspray from sticking.
- Allow basecoat to dry 15 - 30 minutes.
- Extend basecoat dry time to 30 minutes when applying several base color coats and/or in cooler shop conditions.

Gun Setups*

| | 7779S™ | 7779S™:HC-7776S™ 3:1 | 7779S™:HC-7776S™ 1:1 | 7779S™:HC-7776S™ 1:3 | HC-7776S™ |
|------------------------|------------|-------------------------|-------------------------|-------------------------|------------|
| Conventional (gravity) | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm |
| HVLP (gravity) | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm | 1.4-1.6 mm |

Air Pressure*

| | 7779S™ | 7779S™:HC-7776S™ 3:1 | 7779S™:HC-7776S™ 1:1 | 7779S™:HC-7776S™ 1:3 | HC-7776S™ |
|------------------------|-----------|-------------------------|-------------------------|-------------------------|-----------|
| Conventional (gravity) | 30-40 psi | 30-40 psi | 25-35 psi | 20-30 psi | 20-30 psi |
| HVLP (gravity) | 8-10 psi | 8-10 psi | 7-9 psi | 6-8 psi | 6-8 psi |

*The listed setups cover the usual range for various application equipment. For information on specific manufacturers' equipment, see the "Equipment Information" Section in the Appendix of the ChromaSystem™ Technical Manual.



Application

Apply 2 medium-wet coats.



Flash/Dry Times

Air Dry

Various Combinations of ChromaClear® 7779S™ and HC-7776S™

| | 7779S™ | 7779S™:HC-7776S™:77X5S 3:1:1 | 7779S™:HC-7776S™:77X5S 2:2:1 | 7779S™:HC-7776S™:77X5S 1:3:1 | HC-7776S™ |
|----------------|------------|---------------------------------|---------------------------------|---------------------------------|------------|
| Application | Best | | Better | | Good |
| Tack Time | 11 minutes | 8 minutes | 6 minutes | 5 minutes | 4 minutes |
| Dust Free Time | 39 minutes | 32 minutes | 18 minutes | 16 minutes | 14 minutes |
| Appearance | Best | | Better | | Good |
| Time to Buff | Next Day | 5 hours | 3.5 hours | 2.5 hours | 2 hours |

X= 6,7,8 or 9

ChromaBase® “4 to 1” Multi-Mix Clearcoat Customization

Express Force Dry (15 minutes @ 140° F)

Various combinations of ChromaClear® 7779S™ and HC-7776S™

| | 7779S™ | 7779S™:HC-7776S™:77X5S 3:1:1 | 7779S™:HC-7776S™:77X5S 2:2:1 | 7779S™:HC-7776S™:77X5S 1:3:1 | HC-7776S™ |
|----------------|--------------|---------------------------------|---------------------------------|---------------------------------|--------------|
| Application | Best | 8 minutes | Better | 5 minutes | Good |
| Tack Time | 11 minutes | 8 minutes | 6 minutes | 5 minutes | 4 minutes |
| Dust Free Time | On Cool Down | On Cool Down | On Cool Down | On Cool Down | On Cool Down |
| Appearance | Best | 2.5 hours | Better | 30 minutes | Good |
| Time to Buff | 5 hours | | 1.5 hours | | 30 minutes |

X= 6,7,8 or 9

Standard Bake Option (30 minutes @ 140° F)

Various combinations of ChromaClear® 7779S™ and HC-7776S™.

| | 7779S™ | 7779S™:HC-7776S™:77X5S 3:1:1 | 7779S™:HC-7776S™:77X5S 2:2:1 | 7779S™:HC-7776S™:77X5S 1:3:1 | HC-7776S™ |
|----------------|--------------|---------------------------------|---------------------------------|---------------------------------|--------------|
| Handling | Best | 8 minutes | Better | 5 minutes | Good |
| Tack Time | 11 minutes | 8 minutes | 6 minutes | 5 minutes | 4 minutes |
| Dust Free Time | On Cool Down | On Cool Down | On Cool Down | On Cool Down | On Cool Down |
| Appearance | Best | 30 minutes | Better | 30 minutes | Good |
| Time to Buff | 3 hours | | 30 minutes | | 30 minutes |

X= 6,7,8 or 9

Note: Standard bake of HC-7776S™ could lead to solvent popping

Infrared Dry

Refer to the Infrared Guide for setup recommendations.

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.

- After the final coat of clearcoat, step-out the coating by mixing 1 part ChromaSystem™ 19301S™ Blender to 1 part of the remaining material and taper the blend with the resulting mixture.
- Place ChromaSystem™ 19301S™ Blender in a clean spray gun and taper the blend edge for final melt-in of the blended edge.

Tips for Success

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

Recoatability/Re-repair

DuPont™ ChromaBase® “4 to 1” Clearcoats may be recoated during any stage of dry or cure. If recoating after 24 hours, scuff sand with 1200 - 1500 grit.

Sanding

Use 1500 grit wet or finer. Or use P1500 DA or finer.

ChromaBase® “4 to 1” Multi-Mix Clearcoat Customization

Compounding

Use finishing compound. Apply a thin ribbon of material to the area to be polished. Use a double-sided wool polishing pad or a foam pad. Maintain air polisher or variable speed buffer at 1500 - 1800 rpm. Remove excess finishing compound with a clean soft cloth prior to applying finishing polish.



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

- 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.

Cleanup

Clean spray equipment as soon as possible with DuPont Lacquer Thinner.

Physical Properties

VOC: 4.2-4.3 lbs/gal ready-to-spray.

Theoretical Coverage: 495-555 sq. ft. per ready-to-spray gallon at 1 mil.

Weight Solids: 37.5-41.2% ready-to-spray.

Volume Solids: 30.4-34.8% ready-to-spray.

Recommended Dry Film Thickness: 1.8 - 2.2 mils in 2 coats.

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

WEAR A POSITIVE-PRESSURE, SUPPLIED-AIR RESPIRATOR (NIOSH APPROVED TC-19C), EYE PROTECTION, GLOVES AND PROTECTIVE CLOTHING WHILE MIXING ACTIVATOR WITH PAINT, DURING APPLICATION AND UNTIL ALL VAPORS AND SPRAY MIST 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 USE OR BE EXPOSED TO VAPOR OR SPRAY MIST. Do not permit anyone without protection in the painting area.

