

AEROSPACE COATINGS

PRODUCT DATA

SKYscapes[®] Mica Basecoat

850 Series (SP Colors)

DESCRIPTION

SKYscapes® effect colors use pearl / mica pigments to create special effects for commercial and general aviation aircraft. SKYscapes® technology delivers a consistent, durable, colorful finish. This coating meets the SAE AMS 3095 specification when used as part of a qualified primer/clearcoat scheme.

COATING PROPERTIES

Solids: Spray able By weight 44.3% - 55.4% depends on color By volume 34.1% - 39.0% depends on color Density: 0.94 - 1.15 g/ml depends on color Viscosity-Spray able Gardner Signature #2 Zahn Cup 15-17 seconds Mixed V.O.C. U.S. Exempt Solvent <3.5 lbs./gal (420 g/L) Non-Exempt Solvent <4.5 lbs./gal (535 g/L) **Useable Pot Life** 3 Hours At 77°F / 25°C **Theoretical Coverage** 548-626 ft.2 / gal. Per dry mil 13.4-15.4 m²/L Per 25 microns Dry Film Weight 0.0060 - 0.0087 lbs. / ft.² Per dry mil Per 25 microns $29.4 - 42.2 \,\mathrm{g} \,/\,\mathrm{m}^2$

SHELF LIFE

Shelf Life is applicable only for materials stored in unopened and undamaged original factory filled containers.

Minimum Storage Temp: 40°F / 4°C Maximum Storage Temp: 100°F / 37°C

SP-series mixed colors: 6 months CM0850**081**: 2 years CM0850**BR0**: 7 years CM0850**BR1**: 7 years

ADVANTAGES

- Uses translucent pearl / mica pigments to achieve special effect colors for aircraft
- Quick drying
- Allows for multiple color applications per day
- Two double track coat application for most colors
- No baking required
- Dries quickly at ambient temperatures
- No need to sand between coats
- Easy to mix
- Excellent leveling
- Long pot life
- Repairable
- Designed to work with Sherwin Williams SKYscapes® Basecoat system.





Sherwin–Williams Aerospace Coatings • 415 E. Commerce Street • Andover, KS 67002 Tel: 316.733.7576 • Toll Free: 888.888.5593 • Fax: 316.733.1348 www.swaerospace.com Revision 10, 08/22/2018, Page 1 of 3



PRODUCT DATA

MIXING INSTRUCTIONS

<u>Thoroughly agitate</u> color component for 15 minutes before admixing.

Mix by Volume:

4 Parts SKYscapes ® Mica Color

850 Series (SP Intermix Numbers)

1 Part SKYscapes ® Basecoat Hardener

CM0850**081**

3 Parts SKYscapes ® Basecoat Activated Reducers

(Select from options below. Both can be used

for ground and mica coats.) CM0850**BR0** – Extra Slow. CM0850**BR1** – Slow.

Reducer Selection options:

 <u>CM0850BR0:</u> Use in hot, humid conditions for full repaint for wide bodied commercial aircraft or application process times that are slow per coat.

 CM0850BR1: Use in ambient conditions for full repaint for narrow and wide bodied commercial aircraft or application process times that are fast per coat.

Add the Hardener and Reducer into the color Component. Stir in slowly and allow a 15 minute induction time.

IMPORTANT: Mica Basecoat Colors require constant stirring or agitation.

RECOMMENDED EQUIPMENT INFORMATION

This product can be applied using **Typical Fluid Tip Sizes**:

HVLP / compliant guns. Fluid Tips 1.3 or 1.4 mm E/S air spray with pressure pot E/S AAA Fluid Tips 1.0 to 1.4 mm Fluid Tips 6.11 or 6.13

Note: SKYscapes® basecoat clearcoat system can be applied with all types of professional spray equipment, including conventional air spray, HVLP Gravity, siphon or pressure; Electrostatic air spray or air assisted airless (AAA).

Before application commences, ensure that the equipment is clean, and is performing properly. Always ensure that the fan pattern is even by conducting a static horizontally and vertically test on paper adjacent to the AC or component. Poor gun performance and an uneven fan pattern/distribution could effect mica orientation.

THREE STAGE MICA APPLICATION INSTRUCTIONS

1 - GROUND COAT APPLICATION

The ground coat's main function is to establish an opaque color foundation. Apply light closed film coats and minimize any post flow. One cross coat is typically required, although certain groundcoat colors may require additional coats to achieve full opacity.

Avoid heavy film applications, flooding and saturating the substrate. This may produce picture framing, pigment flooding and flotation, which could influence the final color and shade of the full scheme once complete.

Note: Full opacity and an even color of this layer is very important for the mid coat layers orientation.

Recommended dry film thickness is 1.2 - 2.0 mils (30 -50 microns).

2 - MICA MID COAT APPLICATION

The mica mid coat material is **TRANSLUCENT** and its main function is to establish an even effect and color foundation. Full opacity will never be attained.

Apply multiple, light, even closed film coats. Minimize any post flow. Apply this mid layer perpendicular to the surface. Be conscious of consistent gun distance and pass overlaps. Take time to apply this material. Apply 2 wet closed film double track coats allowing a min of 15 minutes apart per application. This should be followed by a light random scatter coat to ensure even mica orientation.

Note: Some Mica colors may require additional coats to achieve the correct esthetic effect.

Recommended dry film thickness is 1.2 - 2.0 mils (30 -50 microns).

Final note: Avoid heavy film applications, flooding and saturating the substrate. This approach may produce picture framing, pigment flooding and flotation, which could influence the final color, shade and mica orientation.

3 - CLEAR COAT APPLICATION

All SKYscapes® Mica Basecoat colors **must be** clearcoated. SKYscapes ® Clearcoat (CM0850180), SKYscapes General Aviation Clearcoat (CM0850CC1 or CM0855CC3), Acry Glo Clearcoat (CM0571080) and Acry Glo HS Clearcoat (CM0830080) are all acceptable depending upon your application. Refer to the applicable clearcoat product data sheet for mixing and application procedures.







DRYING SCHEDULE

Typical mica mid coat dry times is based on the dry film thickness of 2.0 mils (50 microns).

Air Dry Times (75°F / 25°C and 50% RH)	<u>Min</u>	<u>Max</u>
850BR1 Dry to tape	3 Hrs.+	72 Hrs.
To lightly sand	4+ Hrs.	
To apply Clearcoat*	2+ Hrs.	
Air Dry Times (> 95°F / 35°C and 80% RH+) 850BR0 Dry to tape To lightly sand To apply Clearcoat*	Min 2 to 3 Hrs. 4+ Hrs. 2+ Hrs.	<u>Max</u> 72 Hrs.

NOTE: Lower temperatures, heavy film thickness, and poor air flow / movement will extend the dry time.

MICA BASECOAT REWORK TIPS

Use one of the following options when needing to re-apply groundcoat and mica.

- Use 320-grit D/A papers or higher.
- Fine grade Wet/dry sandpaper (600+) may also be used
- Red or Gray scotchbrite (abrade uniformly)

NOTE: MICA EFFECT COATINGS, ONCE SANDED, WILL REQUIRE THE RE-APPLICATION OF THE ORIGINAL SOLID COLOR GROUNDCOAT.

UNSANDED MICA BASECOAT PREPARATION PRIOR TO CLEAR COATING

Prep 1. For simple paint schemes that are under the 72 hour non-scuff dry time and the area has not been touched and is perfectly clean (no tape gum or fingermarks), tack thoroughly and apply clearcoat directly. No prepaint wiping is necessary.

Prep 2: When multiple colors or an elaborate scheme has been applied (requiring multiple handling and/or back masking), remove any light contamination (such as tape gum and fingermarks) with **CM0110158 Basecoat Surface Cleaner** (preferred) or **CM0110120 Pre-paint Wipe Cleaning Solvent**. Use the wipe on, wipe off technique changing cloths regularly. Allow these materials to flash off for a minimum of 15 minutes before applying clearcoat.

Note: For basecoats less than 12 hours old, **test** the pre-paint wipe cleaning solvents for sensitivity on a low light area before general cleaning of all areas.

EQUIPMENT CLEANUP

Use clean Ketone—type solvents such as CM0110308. Do not allow material to cure inside equipment.

PRODUCT INFORMATION

Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application, which are not known, or under our control, The Sherwin–Williams Company cannot make any warranties as to the end result.

