# Technical Data Sheet Aerospace Coatings



# PPG BOUNDLESS™ CA6500 Special Effect Mica System

## **Product description**

PPG BOUNDLESS™ CA6500 Special Effect Mica System coating is based on current CA6500 technology and has been developed to provide greater flexibility and choice in selection of special effect color exterior livery systems for Light General Aviation and Recreational Aircraft Market.

- Available in a wide range of mica particle sizes
- Easy to apply, excellent flow and leveling properties
- VOC Content < 350 g/l</li>
- HAP's Free and Heavy Metal Free Formulations
- Resistant to Hydraulic Fluids, Lubricating Oils, and Diesel Fuel.

## Components

#### Mix ratio (by volume):



CA6500 Clear base component CA6500B Activator CA6500CT Series thinners 3 parts 1 part 0.50 parts

Thinner options: CA6500CT (Slow) CA6500CT1 (Standard) CA6500CT2 (Fast) CA6500CT3 (Faster)

# **Specifications**



PPG BOUNDLESS CA6500 Special Effect Mica System is qualified to:

DeSoto Standard

Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.

#### **Product compatibility:**

PPG BOUNDLESS CA6500 Special Effect Mica System is compatible with the following PPG Aerospace coatings:

- PPG BOUNDLESS CA6500
   Polyurethane Buffable Topcoat
- PPG BOUNDLESS CA6500/B900
   Polyurethane Buffable Clearcoat
- PPG BOUNDLESS CA6510/B900 Polyurethane Flat Clearcoat
- Desothane<sup>™</sup> HS CA9005 High Gloss Clearcoat
- Desothane™ HD CA9007/B900 High Gloss Clearcoat
- Desothane™ HD 9008/B900D High Gloss Clearcoat

## Surface preparation and pretreatments



PPG BOUNDLESS CA6500 Special Effect Mica System can be applied over clean, dry, and intact PPG BOUNDLESS CA6500 Polyurethane Buffable Topcoat. Refer to the PPG BOUNDLESS CA 6500 Polyurethane Buffable Topcoat technical data sheet for the appropriate overcoat window. The overcoat window for the CA6500 Series Topcoats is from dry-to-tape (DTT) to 72 hours.

## **Instructions for use**



#### Mixing instructions:

Mechanically shake the base component (Part A) thoroughly before combining to ensure all solids are completely dispersed. Add one volume of activator component (Part B) to three volumes of base component (Part A), then add half volume of thinner component (Part C). Mix by hand stirring, paint shaker or mechanical mixing to ensure the mixture is homogeneous. Shake or mechanically mix for 5 minutes.

Note: It is important to condition the paint for 24 hours prior to mixing by placing all materials in the shop or hangar, with ambient temperatures between 13° and 35°C (55° to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.



#### Induction time:

Not Required



Viscosity: (23°C/73°F)

#2 Signature Zahn cup (fresh mix)
 15 - 20 seconds

Note: Viscosities quoted are typical values obtained when using specified mix ratio.



Pot life: 22 - 30°C (71 - 86°		
CA6500CT	3 hours	
CA6500CT1	2 hour	
CA6500CT2	1 hour	
CA6500CT3	45 minutes	

# **Application guidelines**

#### Optimum recommended application conditions:

Temperature 15 - 30°C (59 - 86°F)

Relative humidity 20 - 75%

### Application:

Ground the aircraft and the application equipment before top coating. Stir the topcoat slowly during the application. The recommended dry film thickness is 37.5 to

50 microns (1.5 to 2.0 mils). This can be accomplished by two or three medium coats with a 50% overlap. Note the first coat should be allowed to tack up before applying the second coat. If the second is applied before the first coat has tacked up, sagging may occur. If the first coat is completely dry, a heavy orange peel could result.

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#### Note:

Remove ALL filters from the spray gun and pumps before spraying and agitate Mica during the application.

Brush or roll application is not recommended for *PPG* BOUNDLESS CA6500 Special Effect Mica System

*PPG BOUNDLESS* CA6500 Special Effect Mica System must be clearcoated in order to achieve full performance properties. Consult the Technical Data Sheet of the compatible clearcoats listed below for application details.

- PPG BOUNDLESS CA6500/B900 Polyurethane Buffable Clearcoat
- PPG BOUNDLESS CA6510/B900 Polyurethane Flat Clearcoat
- Desothane™ HS CA9005 High Gloss Clearcoat
- Desothane<sup>™</sup> HD 9008/B900D High Gloss Clearcoat
- Desothane™ HD CA9007/B900 High Gloss Clearcoat

When clearcoating *PPG* BOUNDLESS CA6500 Special Effect Mica System, the overcoat window is from Dry-to-tape (DTT) to 72 hours.

These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables



#### Theoretical coverage:

15.78 square meters/liter at 25 microns dry film (643 square feet/gallon at 1 mil dry film) Recommended dry film thickness; 37.5 to 50 microns (1.5 to 2.0 mils)



#### Dry film weight:

28.97 grams/square meter at 25 microns dry film (0.00592 pounds/square foot at 1 mil dry film)



## **Equipment:**

PPG BOUNDLESS CA6500 Special Effect Mica System is compatible with all current forms of spray equipment.

Equipment type	Tip size	Pot pressure	Atomization pressure at the cap
Electrostatic air spray gun	1.2 mm to 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)
Electrostatic air assisted airless spray gun	#611 or #613 (Graco nomenclature)	700 to 1200 psi (48 to 82 bar)	40 to 60 psi (2.8 to 4.1 bar)
High volume low pressure spray gun (HVLP)	1.2 mm to 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	10 psi maximum (0.69 bar)
Conventional air spray gun	1.2 mm to 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

#### **Equipment cleaning:**

Clean spray equipment as soon as possible after use. Flush spray equipment with IS-213 Polyurethane Reducer (MIL-DTL-81772 Type I) DeSoto® CN20, DeSoto® CN44, or Desoclean 45 high performance solvent cleaner. Once material is fully cured, use an approved chemical paint removal system to strip off coating.

## **Physical properties (product)**



**Color:** Mica effects are available in a wide range of colors



Gloss 60°: 90+ gloss units

Dry times at 22 – 30°C (71 - 86°F) 50% R.H.							
Thinner component	CA6500CT	CA6500CT1	CA6500CT2	CA6500CT3			
Time between coats	40-60 minutes	35-45 minutes	20-30 minutes	15-20 minutes			
Dry to touch	4-6 hours	2-4 hours	1-2 hours	0.5-1 hour			
Dry to tape	8-14 hours	7-9 hours	5-8 hours	2-3.5 hours			
Full cure	14 days	14 days	14 days	14 days			

**Note:** The times listed above are dependent upon film thickness, airflow, and spray technique. Lower film thickness, better airflow, spraying "dry" will decrease the dry-to-tape, and time between coats.



Mixed, ready to use VOC (EPA method 24) < 350 grams/liter



#### Flash point closed cup:

Base Component 42.8°C (109°F)
Activator Component 38.0°C (100.4°F)
Thinner Component (CT1) 23.9°C (75°F)

#### Shelf Life:

24 months from date of manufacture for DeSoto Standard.

Note: Shelf life is provided for original, unopened containers.

<u>Note:</u> The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

## Storage recommendations



Inspect the condition of the container to ensure compliance. The material should be stored at temperatures between 5°C to 35°C (41°F to 95°F) to ensure shelf life.

Note: When procuring to a qualified material specification, follow those storage instructions.

# **Health precautions**

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which

provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An SDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

For industrial use only. Keep away from children.

Additional information can be found at: www.ppgaerospace.com

For sales and ordering information call the local PPG office at the numbers listed below:

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