Technical Data Sheet

Aerospace Coatings



CA7045 HS Polyurethane Primer

Product Description

CA7045 is a two pack, chromated polyurethane primer for application to suitably pretreated aluminium alloys. CA7045 has been specifically designed for long term corrosion protection of aircraft structural components, including fuel tanks.

- Quick drying
- High solids, (low VOC)
- Excellent wetting and adhesion characteristics
- Long term corrosion protection
- Excellent chemical resistance and flexibility

Components



Mix Ratio (by volume)

CA7045 (Base) 3 parts
 CA7045B (Activator) 1 part

Specifications



CA7045 is qualified to:

- AIMS 04-04-001
- AIMS 04-04-003
- AIMS 04-04-004
- BS2X33A

CA7045 meets the performance requirements of:

- BAMS 565-001
- BAMS 565-008
- BS2X33B (over suitably pretreated metal)

Product Compatibility

CA7045 is listed on the following topcoat specifications:

- AIMS 04-04-003
- BSB2X34A+B

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

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Surface Preparation and Pretreatment



Ensure that the correct surface pre-treatment has been carried out. Ensure the surface is clean, dry and intact - DeSoto[®] CN20 or Desoclean[™] 45 solvent cleaners are recommended. Ensure temperature and humidity are within specified process limits.

Instructions for Use



Base may require mechanical agitation. Ensure all components are adequately mixed. Before adding the activator to the base, thoroughly stir or shake the base until a smooth uniform mix is obtained. Immediately after adding the activator to the base, stir thoroughly until uniform.

Note: All products and components should be placed in ambient conditions of 15-30°C (59-86°F) for at least 24 hours prior to mixing and application.



Induction Time:

Not required

Viscosity: (23°C/73°F)

 AFNOR2.5 	58 - 67 seconds
AFNOR4	17 - 18 seconds
• BSB3	32 - 34 seconds
• BSB4	17 - 21 seconds
• FORD4	15 - 16 seconds
• ISO3	54 - 65 seconds
• ISO4	25 - 32 seconds
• ZAHN2	20 - 21 seconds

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



Pot Life:

3 hours @ 21 - 25°C (70 - 77°F)

Application Guidelines

Recommended Application Conditions:

Temperature 15 - 35°C (59 - 95°F) Relative Humidity 30 - 85%

Application:

Apply as an even wet coat to achieve a dry film thickness of 15 - 25 µm (0.6 - 1 mil)



Theoretical Coverage: (ready for use)

30 m² Lt @ 20 µm dry film thickness 1200 ft² US gal @ 0.8 mil dry film thickness

Recommended Dry Film Thickness:

15 - 25 µm 0.6 - 1 mil



Dry Film Density:

1.68 g/cm³ 14 lbs/US gal

Dry Film Weight:

34 g/m² @ 20 µm dry film thickness 0.0069 lbs/ft² @ 0.8 mil dry film thickness

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

Equipment:



Equipment Type	Tip Size	Pressure	
Airmix	11 thou	29 to 51 psi (2 to 3.5 bar)	
HVLP Air Spray	1.0 to 1.8 mm	29 to 43 psi (2 to 3 bar)	
Conventional Air Spray	1.0 to 1.8 mm	43 psi (3 bar)	
Airless	11 thou	1015 psi (70 bar)	
Air-assisted Airless Electrostatic	9 thou	29 to 51 psi (2 to 3.5 bar)	
Low Pressure Electrostatic	1.0 to 1.2 mm	58 psi (4 bar)	

Equipment Cleaning:

Clean spray equipment before use and as soon as possible after use. Recommended Thinner 0436/9000

Physical Properties



Colour:

Yellow-Green BAC452 approx (7045) Black (7045C09553)



Gloss:

<15 units with a 60° gloss meter



Drying Times	23°C (73°C)	40°C (104°F)	50°C (122°F)	60°C (140°F)	70°C (158°F)
Dust Free	1 hour	30 minutes	15 minutes	10 minutes	5 minutes
Through Dry	4 hours	2 hours	1.5 hours	1 hour	45 minutes
Dry to Tape	1 hour	25 minutes	20 minutes	15 minutes	10 minutes
Dry to Sand	2 hours				
Dry to Overcoat	2 hours (min.) 72 hours (max.)				
Full Cure	7 days				3 hours

Note: Drying times listed above are dependent upon film thickness applied, air flow conditions and application technique.



Flash Off Time:

15 minutes prior to overcoating.



Special Note:

After 72 hours primer must be cleaned, lightly abraded with 320 grit sandpaper or Red Scotch-Brite[™] pad and refreshed with further coat of CA7045 before application of topcoat. For wet on wet application allow 10 - 20 minutes before application of second coat.



VOC: (ASTM)

Mixed ready for use <350 g/Lt CA7045 Base Component 370 g/Lt CA7045B Activator 255 g/Lt



Flash Point:

CA7045 Base Component 18°C (64°F) CA7045B Activator 25°C (77°F)

Shelf Life:

CA7045 Base Component 24 months in original unopened container CA7045B Activator 24 months in original unopened container

Note: Shelf life may vary due to OEM specification requirements. Refer to container label for specific shelf life information.

Note: 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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ASC – Australia Tel 61 (3) 9335 1557 Fax 61 (3) 9335 3490

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