# Technical Data Sheet Aerospace Coatings



# **Desoprime**<sup>™</sup> 7521 Chrome Free Epoxy Primer

# **Product Description**

7521 is an air-drying, epoxy, chromate free primer designed for both exterior applications and the protection of interior and structural parts of aircraft. 7521 is suitable for application direct to pre-treated aluminium alloy and can be overcoated with conventional or high solid topcoats.

- High solid, low VOC
- Excellent adhesion & chemical resistance
- Good flexibility
- Corrosion resistance

### **Components**



#### Mix Ratio (by volume)

•	7521 (Base)	4 parts
•	7521B (Activator)	1 part
•	7521C (Thinner)	0.5 part

## **Specifications**



7521 is approved to:

- DGQT 1.7.0.0150
- DGT 99 993 (External Applications)
- DGT 127028 (Non Critical Structural Applications)
- HMRC0154 (Structural Applications)
- HMRC0155 (Structural Applications in Combination with CA8000 Topcoat)

7521 meets the performance requirements of:

Def Stan 80-225 Type I & Type II

#### **Product Compatibility**

7521 is compatible with the following topcoat specifications:

- AIMS 04-04-025
- BAMS 565-009
- Def Stan 80-161

- ASNA 3626
- BMS 10-60 T2
- DHMS C4.04

- ASNA 4247
- BMS 10-72 T8
- HMRC0155A

- BLGG 140301
- BMS 10-125
- MSRR 1006

- BAMS 565-002
- BS2X34B

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

# **Surface Preparation and Pretreatment**



Ensure surface is clean, dry and intact using a high performance solvent cleaner. DeSoto<sup>®</sup> CN20 or Desoclean<sup>™</sup> 45 solvent cleaners are recommended.

# **Instructions for Use**



Thoroughly stir or shake for a minimum of 10 minutes until a smooth and homogenous mix is obtained. Slowly add activator to base while stirring, then add required thinner while continuing to stir

Note: All products and components should be conditioned at 20-35°C (68-95°F) for at least 24 hours prior to mixing and application.



#### **Induction Time:**

Not required



Viscosity: (23°C/73°F)

AFNOR4 16 - 22 seconds
ISO4 26 - 34 seconds
ZAHN2 22 - 29 seconds

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



#### Pot Life:

2 hours @ 21 - 25°C (70 - 77°F)

# **Application Guidelines**

#### **Recommended Application Conditions:**

Temperature 20 - 35°C (68 - 95°F)

Relative Humidity 20 - 80%

#### Application:

Apply as an even wet coat to achieve the recommended dry film thickness. For small structural parts, apply 2 to 3 light single coats to achieve the recommended thicknesses with a flash off time of 10 to 30 minutes between coats.



Theoretical Coverage: (ready for use)

15 m<sup>2</sup>/Lt @ 20 µm dry film thickness 600 ft<sup>2</sup>/US gal @ 0.8 mil dry film thickness

#### **Recommended Dry Film Thickness:**

15 - 25 µm 0.6 - 1 mil



#### **Dry Film Density:**

1.8 g/cm³ 15 lbs/US gal

#### **Dry Film Weight:**

 $36 \text{ g/m}^2$  @  $20 \mu \text{m}$  dry film thickness  $12 \text{ lbs/ft}^2$  @ 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	Flow Rate	Air Pressure
Airmix	Not recommended		
HVLP Air Spray	Not recommended		
Conventional Airspray	1.2mm		58 to 97 psi (4 to 6 bar)
Airless	Not recommended		
Air-assisted Airless Electrostatic	Not recommended		
Electrostatic Spray PRO Graco XS	1.2 or 1.5mm	280 to 320 ml/min	72 to 97 psi (5 to 6 bar)



#### Note:

Purge during 5 minutes minimum before fluid rate adjustment.

#### **Equipment Cleaning:**

Clean spray equipment before use and as soon as possible after use. DeSoto® CN20 or CN44 solvent cleaners are recommended.

# **Physical Properties**



#### Colour:

Cream (7521) Grey (7521B00707) Lagoon (7521E05329)



#### Gloss:

Not applicable



Drying Times @ 50% Relative Humidity	23°C (73°F)	60°C (140°F)
Dust Free	1.5 to 2 hours	25 to 30 minutes
Dry to Handle	2 to 3 hours	35 minutes
Dry to Tape	5 to 7 hours	45 minutes
Dry to Sand	7 hours	
Dry to Overcoat	5 hours (min.) 72 hours (max.)	30 to 60 minutes
Full Cure	7 days	3 hours

#### **Accelerated Cure:**

Allow 15 to 30 minutes flash off at 24°C  $\pm$  5.6°C (75°F  $\pm$  10°F) followed by 2 hours at 49°C (120°F) for dry to topcoat

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



#### Flash Off:

15 to 30 minutes prior to force dry application



#### VOC: (ASTM)

Mixed ready for use <350 g/Lt 7521 Base Component 322 g/Lt 7521B Activator 204 g/Lt 7521C Thinner 794 g/Lt



#### **Flash Point:**

7521 Base Component -5°C (23°F) 7521B Activator 27°C (80°F) 7521C Thinner -18°C (-0.4°F)

#### Shelf Life:

7521 Base Component 24 months in original unopened container 7521B Activator 24 months in original unopened container 7521C Thinner 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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1 (818) 362-6711 or 1-800-AEROMIX

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www.ppgaerospace.com Issue Date: 01/23

Lit: 4359