

5421/2921 Polyurethane Anti-Static Coating TYPE I

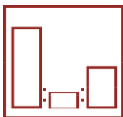
TECHNICAL DATA SHEET

Product Description

5421/2921 is a two component, polyurethane, anti-static primer, designed to conduct the electrostatic charges from composite parts to the aircraft metallic structure. 5421/2921 is applicable on non-conductive surfaces such as glass or aramid fibre resin laminates and other plastic materials.

- High conductivity for general use on fairings
- Not suitable for use on radomes & antenna
- Compatible with most types of composite materials
- Good flexibility
- Water resistant
- Resistivity <50 kohms

Components



Mix Ratio (by volume)

- | | |
|-------------------------|---------|
| • 5421/2921 (Base) | 5 parts |
| • 0707/9000 (Activator) | 1 part |
| • 0491/9000 (Thinner) | 2 parts |

Specifications



5421/2921 is qualified to:

- AIMS 04-04-005

Product Compatibility

5421/2921 is compatible with the following specifications:

- AIMS 04-04-002
- AIMS 04-04-011
- BS2X34A+B

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

Surface Preparation and Pretreatment



Apply over suitably prepared primer/surfacer. Ensure that the correct surface pre-treatment has been carried out, and that drying and overcoat times are observed. Ensure the surface is clean, dry and intact using high performance solvent cleaner - DeSoto® CN20 or Desoclean™ 45 solvent cleaners are recommended.

5421/2921 Polyurethane Anti-Static Coating TYPE I

Instructions for Use



Hand stir or shake the base component to ensure all components are adequately dispersed. Add the activator to the base and thoroughly stir until a smooth uniform mix is obtained. Finally add thinner and stir well before use.

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)

• AFNOR4	17 - 19 seconds
• BSB3	32 - 36 seconds
• BSB4	18 - 21 seconds
• FORD4	15 - 17 seconds
• ISO4	25 - 42 seconds
• ZAHN2	20 - 22 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	15 - 30°C (59 - 86°F)
Relative Humidity	30 - 80%

Application:

Apply in light cross coats to achieve the recommended dry film thickness 40 - 50 µm.



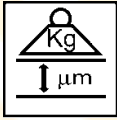
Theoretical Coverage: (ready for use)

5 - 6 m²/Lt @ 45 µm dry film thickness
200 - 240 ft²/US gal @ 1.8 mil dry film thickness

5421/2921 Polyurethane Anti-Static Coating TYPE I

Recommended Dry Film Thickness:

40 - 50 μm
 1.6 - 2 mil



Dry Film Density:

1.33 g/cm^3
 11 lbs/US gal

Dry Film Weight:

60 g/m^2 @ 45 μm dry film thickness
 0.012 lbs/ft^2 @ 1.8 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: 5421/2921 is compatible with most current forms of spray equipment



Equipment	Tip Size	Air Pressure
Conventional Air Spray	1.5 mm	43 to 58 psi (3 to 4 bar)

Equipment Cleaning:

Clean spray equipment before use and as soon as possible after use. DeSoto[®] CN20, CN44 or Desoclean[™] 45 solvent cleaners are recommended.

Physical Properties



Colour:
 Black



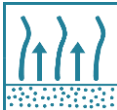
Gloss:
 Not applicable

5421/2921 Polyurethane Anti-Static Coating TYPE I



Drying Times @ 50 % R.H.	23°C (73°F)	60°C (140°F)
Dry to Touch	90 minutes	30 minutes
Dry to Handle	4 hours	
Dry to Overcoat	1 to 72 hours	
Dry to Tape	8 to 10 hours	
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:

20 minutes at ambient temperature



VOC: (ASTM)

Mixed ready for use	680 g/Lt
5421/2921 Base	675 g/Lt
0707/9000 Activator	460 g/Lt
0491/9000 Thinner	790 g/Lt



Flash Point:

5421/2921 Base	7°C (45°F)
0707/9000 Activator	50°C (122°F)
0491/9000 Thinner	-3°C (27°F)

Shelf Life:

5421/2921 Base	24 months in original unopened container
0707/9000 Activator	24 months in original unopened container
0491/9000 Thinner	10 years 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.

5421/2921 Polyurethane Anti-Static Coating TYPE I

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.



5421/2921 Polyurethane Anti-Static Coating TYPE I

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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