PPG Aerospace
PRC-DeSoto

DeSoto® 528X310 Conductive Coating

TECHNICAL DATA SHEET

Product Description

DeSoto® 528X310 Conductive Coating is a conventional solids, carbon filled, epoxy coating with controlled conductive properties. 528X310 is used to obtain high surface conductivity on non-conductive composite substrates.

- Compatible with Desothane® HS topcoats
- Excellent adhesion to composite surfaces
- Excellent fluid resistance
- Compatible with all non-electrostatic spray equipment
- Resistivity of 0.1 to 100,000 ohms per square
- Can be applied in a wide range of conditions
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components

Mix ratio (by volume):

• 528X310 (base component)	1 part
• 910X464 (activator component)	1 part

Specifications

528X310 primer is qualified to:

- 299-947-142
- BAMS 565-12 Type III
- BMS 10-21 Type III
- CMFS033 Type III
- CMS-CT-233 Type II
- HMBS-29-007
- HMS 15-1141
- HS 16469 Type III
- MM1260
- SMS 111207 Type 8
- STM0875 Type I

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

Product Compatibility:

528X310 is compatible with the following topcoat specifications:

- BAMS 565-009 Type II
- BMS 10-60 Type I & Type II
- BMS 10-72 Type VIII
- BMS 10-125 Type III
- DPM 6456
- DPM 6546
- MEP 10-069

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Surface Preparation and Pretreatments

DeSoto® 528X310 Conductive Coating can be applied over clean, dry, intact composite surfaces.

Instructions for Use

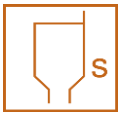
Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Add the activator to the base component and stir well, maintain constant agitation for 10 minutes to ensure proper mixing.

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:

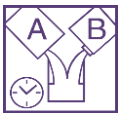
Not Required



Viscosity: (23°C/73°F)

• #1 Signature Zahn cup	30 to 40 seconds
• #2 Signature Zahn cup	15 to 20 seconds
• #4 Ford cup	10 to 15 seconds
• ISO 3mm cup	31 to 50 seconds
• ISO 4mm cup	15 to 22 seconds
• BSB3 cup	24 to 30 seconds
• BSB4 cup	14 to 17 seconds
• AFNOR #2.5 cup	41 to 56 seconds
• AFNOR #4 cup	13 to 16 seconds

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



Pot Life:

4 hours @ 21 - 25°C (70 - 77°F)

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Application Guidelines

Recommended Application conditions:

Temperature	15 - 30°C (59 - 86°F)
Relative Humidity	20 - 90%

Application:

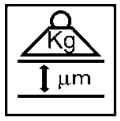
Ground the aircraft and the application equipment before priming. Stir the coating slowly during the application. The suggested film thickness is 15 to 25 microns (0.6 to 1.0 mils). This can be accomplished with one medium coat with a 50% overlap.

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:

6.6 square meters/liter at 25 microns dry film (267 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 15 to 25 microns (0.6 to 1.0 mils)



Dry Film Density:

1.36 grams/cubic centimeter (11.33 pounds/gallon)

Dry Film Weight:

39 grams/square meter at 25 microns dry film (0.00804 pounds/square feet at 1 mil dry film)

Equipment:

528X310 primer is compatible with all forms of current conventional and HVLP spray equipment.

Equipment Type	Tip Size	Pot Pressure	Atomization Pressure at the Cap
High Volume Low Pressure Spray Gun (HVLP)	1.0 mm to 1.4 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 1.8 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

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Equipment Cleaning:

Clean spray equipment as soon as possible after use. Flush spray equipment with DeSoto® CN20, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner.

Physical Properties (product)

Color: Black

Gloss: Not Applicable

Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Dust Free	25 minutes	15 minutes	10 minutes
Tack Free	2 ½ hours	2 hours	1 ½ hours
Dry Through	5 hours	4 hours	3 hours
Dry Overcoat	4 - 24 hours	4 - 24 hours	4 - 24 hours
Full Cure	7 days	7 days	7 days

Accelerated cure for dry hard:

Allow 15 minutes flash off at 24°C ± 3°C (75°F ± 10°F)
followed by 30 - 45 minutes at 60°C (140°F)

VOC:

Mixed, ready for use VOC (EPA method 24)	700 grams/liter
Base Component	611 grams/liter
Activator Component	791 grams/liter

Flash point closed cup:

Base Component	-6°C (22°F)
Activator Component	-6°C (22°F)

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Shelf Life:

12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

24 months from date of manufacture for PRC-DeSoto Standard.

Note: The coating shelf life is provided for original, unopened containers.

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.

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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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