

Koroflex® 823X439 Conventional Solids Primer

TECHNICAL DATA SHEET

Product Description

Koroflex® 823X439 primer is a single component, moisture cured polyurethane elastomeric coating. This primer stretches and recovers rather than cracking around fasteners and at laps and joints during service.

- Compatible with Desothane® HS topcoats
- Prevents moisture, salt, and chemical intrusion
- Excellent adhesion and corrosion resistance
- Extremely flexible even at low temperature
- Excellent lubricating oil and hydraulic fluid resistance
- Compatible with all spray equipment
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix ratio (by volume):

At 22 - 28°C (71 - 84°F) and relative humidity above 50%, Koroflex® 823X439 primer can be used as a single component.

In low humidity conditions, accelerator component 910X751 may be added per the instructions below.

At 40% to 50% relative humidity the following ratio is recommended:

- 823X439 (base component) 1 gallon
- 910X751 (accelerator component) 12 ounces

Below 40% relative humidity the following ratio is recommended:

- 823X439 (base component) 1 gallon
- 910X751 (accelerator component) 16 ounces

Specifications



823X439 primer is qualified to:

- FMS-3035 Type I Class I
- GP111CT Type I
- GAMPS 4000
- TT-P-2760 Type I Class I

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

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Product Compatibility:

823X439 primer is compatible with the following topcoat specifications:

- DMS 2115
- MIL-PRF-85285
- MMS-420

Surface Preparation and Pretreatments



Koroflex[®] 823X439 primer can be applied over clean, dry, intact aluminum and composite surfaces. Aluminum surfaces shall be treated with materials conforming to MIL-C-5541 or equivalent.

Instructions for Use



Mixing Instructions:

Prior to mixing, thoroughly shake the 823X439 base component. If the environmental conditions are, in excess of 50% 22 - 28°C (71 - 84°F) then the base component needs no accelerator. If the humidity is less than 50%, then add the 910X751 accelerator at the level listed in the mix ratio section, 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



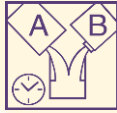
Viscosity: (23°C/73°F)

- | | |
|-------------------------|------------------|
| • #4 Ford cup | 14 to 24 seconds |
| • #2 Signature Zahn cup | 20 to 33 seconds |
| • ISO 4mm cup | 22 to 53 seconds |
| • BSB3 cup | 30 to 54 seconds |
| • BSB4 cup | 19 to 29 seconds |
| • AFNOR #4 cup | 16 to 27 seconds |

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



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Pot Life without Accelerator:

8 hours @ 21 - 25°C (70 - 77°F)

Pot Life with Accelerator:

3 hours @ 21 - 25°C (70 - 77°F)

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 primer slowly during the application. The suggested film thickness is 30 to 45 microns (1.2 to 1.8 mils). This can be accomplished with one medium cross coat with a 50% overlap.

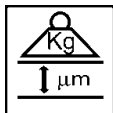
These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.



Theoretical Coverage:

11.9 square meters/liter at 25 microns dry film (486 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 30 to 45 microns (1.2 to 1.8 mils)



Dry Film Density:

1.56 grams/cubic centimeter (13.03 pounds/gallon)

Dry Film Weight:

39 grams/square meter at 25 microns dry film (0.00801 pounds/square feet at 1 mil dry film)

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Equipment:

823X439 primer 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 or 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)	1.0 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)

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: Yellow



Gloss: Not Applicable



Dry Times @ 22 - 28°C (71 - 84°F)	Less than 40% R.H *	Between 40-50% R.H*	Above 50% R.H*
Tack Free	1 hour	1 hour	1 hour
Dry Hard	5 hours	5 hours	5 hours
Dry to Overcoat	2 - 24 hours	2 - 24 hours	2 - 24 hours
Full Cure	7 days	7 days	7 days

*Note: See mix ratio section for application at these R.H.

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VOC:

Mixed, ready to use VOC (EPA method 24)	600 grams/liter
Base Component	583 grams/liter
Accelerator Component	762 grams/liter



Flash point closed cup:

Base Component	-6°C (22°F)
Accelerator Component	16°C (60°F)

Shelf Life:

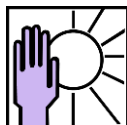
12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

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

Note: 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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ASC – Australia
Tel 61 (3) 9335 1557
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Issue Date: 8/15
Lit: 4123