



PPG Aerospace
PRC-DeSoto

PR-1199

**Secondary Fuel Barrier Coating
Application Guide**



Where Smart Solutions Take Flight®

Use

PR-1199 is a sprayable, polyurethane coating designed for use as a secondary fuel barrier on composite aircraft integral fuel tanks.

Surface Preparation

Good surface preparation is essential to ensure the maximum adhesion of the coating is obtained. The following is an outline of the recommended surface preparation procedures:

1. If the surface cleaning is required, the following steps are to be followed:
 - a. Clean panel using a clean lint free cloth that has been soaked in solvent.
 - b. Immediately wipe dry with a separate clean lint free cloth.
 - c. Repeat the procedure until no residue is seen on the cloth.
2. Some surfaces require abrasion using 220 or finer grit abrasive paper and then cleaning the surface in accordance with (1) above.
3. Next apply 0.3 to 0.8 mil of DeSoto® primer 512X310.
4. Allow to air dry for a minimum of 30 minutes before further handling.
5. Unless otherwise noted, apply the fuel barrier coating within 10 hours of application of 512X310 primer.

Aged Primer

An aged primer is more than 10 hours old since it was applied. A typical procedure for applying new primer over an aged one requires the following steps:

1. Abrade the primer with 240 grit sandpaper to reactivate the surface.
2. Solvent wipe the surface with Desoclean™ 110 cleaner and wipe dry.

Material Inspection Prior To Use

Prior to using, inspect the containers for damage or leaks that may have occurred during shipping. Part A should be translucent and not cloudy or murky.

Mixing

Before mixing the primer, the material should be allowed to reach room temperature. This can be achieved by leaving the primer at room temperature for about 24 hours before mixing. Be sure all mixing and measuring containers are clean and free from contamination.

The mix ratio by weight is 100:26.3 (base:catalyst) and by volume is 100:25. Then paint shake for 2-3 minutes. All components should be mixed at the proper ratios.

During mixing do not use a syringe or any equipment containing silicone oil.

Note: Do not use material beyond its shelf life, which is at least 12 months when stored between 50°F and 95°F (10°C and 35°C) in original unopened containers.

Pot Life

Sprayable pot life is 30 minutes at 77°F ±5°F; less than 45% RH.

Note: Discard any material that has exceeded its usable pot life and also clean the spray equipment.

Spray Equipment

PR-1199 has been developed for use with HVLP spray equipment.

Note: Air spray guns or HVLP atomize the coating more effectively than airless or assisted airless spray equipment and are recommended for PR-1199.

HVLP

Binks Mach 1

Fluid Nozzle	1.7mm
Air Nozzle	97AP
Line Pressure	20-30psi

Application

Apply PR-1199 to an average dry film thickness of 10-12 mils (0.010 to 0.012 inches). This can be accomplished by applying the material to a wet film thickness of 18-22 mils (0.018 to 0.022 inches) in multiple passes (typically 2-4 passes for spray applications). It is important to note that spraying of PR-1199 is to be performed on a horizontal surface.

Application Conditions

The best conditions for applying PR-1199 are 65°F to 85°F (4°C to 30°C) and relative humidity of less than 45%. Excessive humidity can cause blistering and bubbling.

Note: Avoid mixing old coating with freshly mixed coating. This can reduce the pot life of the freshly mixed primer and cause severe appearance problems.

Cure Schedule

Accelerated Cure

The cure can be accelerated with heat. After a flash off time of 2 hours the primed part can be placed in an oven for 24 hours at 120°F (49°C).

Clean Up

Flush equipment with appropriate cleaning solvent.

The coating is a chemically reacting system. It is no longer soluble in solvents after it has cured. For this reason, equipment should be cleaned as soon as possible after the coating has been applied and always before the material has cured. Note that even a fresh coating deposits a film on the equipment that does not dissolve easily. Agitation with a brush or cloth will help to remove these deposits.

Health and Safety

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the PPG Aerospace “Safe Handling Guide” for aerospace coatings and the Material Safety Data Sheet (MSDS) which provide information on health, physical and environmental hazards, handling precautions, and first aid recommendations. An MSDS is available on request. Avoid overexposure. All mixing and spraying must be conducted with adequate ventilation and proper personal protective equipment as recommended. Obtain medical care in case of extreme overexposure.

For industrial use only. Keep away from children.
for emergency information call: 1-412-434-4515.
Additional information can be found at: www.ppgaerospace.com
For sales and ordering information call 1-800-AEROMIX (237-6649).

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PPG Aerospace
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Where Smart Solutions Take Flight®

PRC-DeSoto International, Inc.
12780 San Fernando Road
Sylmar, CA 91342
USA
Telephone (818) 632-6711
Toll Free (800) AEROMIX

www.ppgaerospace.com

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