

primer has been applied and always before the material has been 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. For information on the application of coatings, read and understand PPG's aerospace, PRC-DeSoto "Safe Handling Guide". for information on the health, physical and environmental hazards, handling precautions and first aid recommendations, refer to the Safety Data Sheet (SDS) before using this product. An SDS 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 symptoms of overexposure as outlined in the Safety Data Sheet (SDS).

For industrial use only. Keep away from children.

For emergency medical information call 1-800-228-5635.

Additional information can be found at: www.ppgaerospace.com

For sales and ordering information call 1-800-AEROMIX (237-6649).

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Aerospace Sealants Application Guide

PR-2870 Sprayable Sealant Corrosion inhibitive sprayable sealant



PR-2870 Sprayable sealant

Use

PR-2870 Sprayable is a corrosion inhibitive sealant and elastomeric primer used on aluminum and composite surfaces to obtain superior corrosion resistance and adhesion.

Surface preparation

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

Aluminum substrates

To apply this primer over aluminum, the substrates should be chemically cleaned and then treated with a chromate conversion coating such as Alodine 1200 or Alodine 600.

1. Wet abrade with a fine Scotch-Brite™ pad and water.
2. Solvent clean with Desoclean® 45 or 110 cleaner and wipe dry.
3. Use an alkaline cleaner and rinse with warm water to make sure no residue remains.
4. Acid etch with a mild acid brightener. Agitate the brightener with Scotch-Brite™ pads.

Note: Mix the brightener according to manufacturer's instructions.

5. Water wash to neutralize the acid brightener. Next, observe the surface to water breaks. If a water break occurs, repeat steps 4 and 5. Also check pH level of run off water.
6. Apply the chromate conversion coating.

Note: If the chromated conversion coating cannot be used, delete this step.

7. Rinse with water.
8. Look for a water break-free surface.
9. Allow the surface to dry completely.
10. Apply PR-2870 Sprayable sealant within 24 hours of applying conversion coating.

Composite surfaces

1. Abrade the composite surface with 240 grit sandpaper.
2. Clean the surface to manufacturer's specifications.
3. Apply filler surface (CA 7650 or 8620) if required.
4. Apply PR-2870 Sprayable sealant.

Note: Some carbide sandpapers contain silicone or stearate binders which will cause dewetting or crawling problems.

Aged polysulfide primer

An aged polysulfide primer is more than 7 days 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® 45 or 110 cleaner and wipe dry.
3. Apply PR-2870 Sprayable sealant.

Material inspection prior to use

Prior to using, inspect the containers for damage or leaks that may have occurred during shipping. The containers should be sealed in their original unopened packages.

Mixing

Part B has a tendency to settle out during storage; therefore, proper mixing and correct proportions are extremely important if maximum results are to be obtained.

Thoroughly stir or paint shake Part B to obtain a uniform consistency before addition of Part A. Paint shake Part B for 5 minutes is recommended.

The recommended mixing method is a with a paint shaker. Add all the Part A to the Part B, being sure to scrape the sides and bottom of the container. Replace the lid on the Part B container. For mixing pint, quart, or gallon kits, use a standard gallon capacity paint shaker. Vibrate the shaker at 1350 vibrations/minute for 5 minutes. Larger quantities such as 5 gallons are generally mixed in 10 gallon pressure pots using an air driven agitator. Full containers cannot be mixed on a paint shaker. Longer paint shaking will decrease application time and tack free time.

For ease in spray applications, the material may be thinned by the addition of the optional PR-2870 Thinner Component. Thinning of the mixed material must be accomplished only after mixing of Part B and Part A components. Therefore, immediately after mixing, transfer the mixed material to a self-stirring pressure pot. Depending on the spraying equipment and technique employed, thin up to 20 percent by volume (five parts mixed PR-2870 Sprayable, one part PR-2870 Thinner Component) and mix in the pressure pot for two minutes at 70 rpm.

Movement of the air past the surfaces after application of PR-2870 Sprayable facilitates removal of solvents and speeds up the tack free time.

Note: Do not use material beyond its shelf life, which is at least 9 months when stored @ 40°F to 80° (5°C to 27°C) in original, unopened container.

Pot life

PR-2870 Sprayable sealant needs no induction time before spraying. Strain the mixed primer to remove any particles that may have been introduced into the primer during mixing and measuring. Stir the mixed material before and during use. Sprayable pot life is 1 hour 77°F ± 5°F and 50% ± 10 R.H.

Note: Discard any unused material that has exceeded its usable pot life. A primer that has exceeded its usable pot life may still have low viscosity, but it will develop severe orange peel and have high gloss.

Spray equipment

PR-2870 Sprayable sealant has been developed for use with conventional and HVLP spray equipment.

Note: The final appearance depends on many factors. In general, small particles will create a smoother film with less orange peel. Air spray guns or HVLP atomized the paint more effectively than the airless or assisted airless spray equipment and are recommended for PR-2870 Sprayable sealant.

HVLP

PR-2870 Sprayable sealant primer has been developed for use with conventional and HVLP spray equipment.

Airverter	
Tip size	1.6 to 1.8 mm
Air cap	10 to 12
Compressor pressure	100 psi
Atomization pressure at gun	40 psi maximum
Binks mach 1	
Tip size	#97
Pot pressure	5-15 psi
Atomization pressure at gun	40 psi maximum
Graco 1265	
Tip size	0.047" to 0.057"
Pot pressure	5-15 psi
Atomization pressure at gun	10 psi maximum

Note: In order to achieve 45-50 psi air atomization pressure at the spray gun, the regulated pressure at the mixing pot should be set higher to compensate for pressure loss in the hose. Table I lists air regulator pressure requirements for different hose lengths.

Table I

Air regulator pressure required to maintain 45-50 psi automation pressure at the gun.

Air hose length	At regulator pressure
4 ft. (2m)	45 psi (3 bar)
15 ft. (5m)	55 psi (3.5 bar)
25 ft. (8m)	55 psi (4 bar)
36 ft. (11m)	65 psi (4.5 bar)
50 ft. (15m)	70 psi (5 bar)
75 ft. (23m)	85 psi (6 bar)
100 ft. (30.5m)	100 psi (7 bar)

Note: Conversion: 15 psi = 1 bar

Application

PR-2870 Sprayable sealant to an average dry film thickness of 5 to 8 mils (127 to 203 microns.)This can be accomplished by two medium coat applications of PR-2870 Sprayable sealant primer with a 50% overlap.

Application conditions

The best conditions for applying PR-2870 Sprayable sealant are 65°F to 90°F (20°C to 32°C) and 40% to 60% relative humidity. Temperatures outside these limits may cause longer topcoat times, longer time to put an aircraft into service, shorter pot life, orange peel, and shorter wet edge.

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 1 hour, the primed part can be placed in an oven for 8 hours at 125°F (52°C).

Topcoat application

The length of time before applying the topcoat depends upon the temperature. If the primer is older than the maximum time recommended in the table the following schedule is recommended.

24 to 72 hours

Solvent clean with Desoclean® 110 cleaner, then topcoat.

72 hours and above

Lightly abrade the primer surface with Scotch-Brite™ pads, clean with Desoclean® 110 cleaner, then topcoat.

Clean up

Flush equipment with appropriate solvent.

The primer is a chemically reacting system. It is not longer soluble in solvents after it has cured. For this reason equipment should be cleaned as soon as possible after the