

Desoprime® HS sanding surfacer - CA 8600

Description

Desoprime® HS sanding surfacer is a crystalline silica-free, chromate-free, chemically cured, chemical and solvent resistant polyurethane surfacer.

Desoprime® HS sanding surfacer is heavily pigmented and designed to fill in the irregularities and surface defects commonly experienced on aluminum, fiberglass, and composite surfaces, and has a very good intercoat adhesion to polyurethane topcoats and epoxy primers.

Desoprime® HS sanding surfacer has excellent fluid and solvent resistance but does not have corrosion resistance properties and must be used in conjunction with a corrosion inhibiting primer when used over aluminum surfaces.

Desoprime® HS sanding surfacer is compatible with all forms of spray equipment, easy to apply, and easy to sand to a smooth finish. For further details on the application parameters for this primer, consult the Desoprime® HS-CA 8600 sanding surfacer application guide or contact your local PRC-DeSoto International Application Support Center.

Desoprime® HS sanding surfacer has been evaluated in accordance to the following specifications:

- BPS 299-947-127
- PRC-DeSoto International standard

Desoprime® HS sanding surfacer is compatible with the following topcoat specifications:

- BMS 10-60
- BMS 10-72
- MIL-PRF-85285C
- DPM 6338
- DMS 2433
- EMS 53181

Application properties

Application temperature	55°F - 95°F (13°C to 35°C)
Application humidity	15% - 95%
Mix ratio (by volume)	
Base (CA 8600A)	4 parts
Activator (CA 8600B)	1 part
Viscosity	
Initial mix, #3 Zahn cup	12 sec.
Pot life (2 hours)	25 sec.
VOC, EPA method 24 (mixed system)	350 grams/l
Dry film density	0.009 lbs/ft ² at 1.0 mil dry film
Theoretical coverage	1200 ft ² /gal at 1.0 mil dry film
Recommended dry film thickness after sanding	1-9 mils (25 - 225 microns)
Drying times @ 77°F (25°C), 50% relative humidity	
Dust free	10 minutes
Dry to sand	2 hours
Dry to overcoat	2 hours
Full cure	7 days
Accelerated cure	15 minutes flash off @ 77°F (25°C), then 30 minutes at 120°F (49°C)
Spray equipment	Compatible with all forms of spray equipment
Color	Gray
Shelf life	12 months from date of manufacture

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Performance properties

Service temperature	
-65 to 350°F (-54°C to 177°C)	Conforms
Impact flexibility	
10% GE Impact tester	Conforms
Fluid resistance	
MIL-L-23699	
24 hours @ 250°F (121°C)	Conforms
MIL-H-5606	
48 hours @ 77°F (25°C)	Conforms
MIL-T-5624	
48 hours @ 77°F (25°C)	Conforms
Distilled H ₂ O	
4 days @ 120°F (49°C)	
w/topcoat	Conforms
Skydrol (LD-4)	
30 days @ 77°F (25°C)	Conforms

Note: The application and performance property values above are typical for the material, but not intended for use in specification or acceptance inspection criteria because of variations in testing methods, conditions, and configurations.

Storage life

Inspect the condition of the container to ensure compliance to FED-STD-141, Method 3011.1. The material should be stored at temperatures between 40°F to 90°F (4.4°C to 32.2°C) to ensure shelf life.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the PRC-Desoto International "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 and the Safe Handling Guide are 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 medical information call 1-800-228-5635.

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

Desoprime is a trademark of PRC-DeSoto International, Inc., registered with the U.S. Patent Office.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

Desoprime® HS - CA 8600
sanding surfacer application guide

Use

Desoprime® HS sanding surfacer is designed to be used on fiberglass, composite, and aluminum surfaces. This sanding surfacer is designed to be sanded to a smooth finish to cover surface defects of fiberglass, composite, and aluminum surfaces. Desoprime® HS sanding surfacer contains no chrome, cadmium, lead, or zinc metals.

Note: Apply corrosion resistant primer on aluminum surfaces prior to the application of Desoprime® sanding surfacer.

Surface preparation

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

A. Aluminum substrates

Desoprime® HS sanding surfacer is not recommended for aluminum substrates unless there is a corrosion resistant primer already on the aluminum. Desoprime® HS sanding surfacer contains no chromates, so it is not recommended to be sprayed direct to metal.

B. Composite/fiberglass substrates

1. Abrade the composite surface with 240 grit sandpaper.
2. Clean the surface to the manufacturer's specifications or wipe with Desoclean® 110.
3. Apply Desoprime® HS sanding surfacer.
4. First abrade with 180 grit sandpaper and wipe off the dust.
5. Next abrade with 240 grit sandpaper to eliminate any scratch marks.
6. Clean with either a very mild solvent such as Desoclean® 110 or Naptha or with water.
7. Tack the surface. Make sure it is free of sanding dust.
8. Apply a polyurethane topcoat, such as Desothane® HS topcoat.

Material inspection prior to use

Prior to using, inspect the containers for damage or leaks that may have occurred during shipping. The condition of the curing solution is an important factor in obtaining the best properties from Desoprime® HS sanding surfacer. The appearance of a white haze in the curing solution is an indication of moisture contamination.

Mixing

Before mixing the sanding surfacer, the material should be allowed to reach room temperature. This can be achieved by leaving the sanding surfacer at room temperature for 24 hours before mixing. Be sure all mixing and measuring containers are clean and free from contamination. Shake the base component or stir it thoroughly until there is no solid material left on the bottom of the can.

Note: Do not use material beyond its shelf life, which is one year from the date of shipment.

The mix ratio, by volume, of CA 8600 is four parts of CA 8600A base component to one part CA 8600B activator component. Do not add thinner. Mixed VOC is 350 grams per liter.

Pot life

Desoprime® HS sanding surfacer needs no induction time after mixing. Strain the mixed sanding surfacer through a fine mesh cloth to remove any particles that may have been introduced during mixing and measuring. Stir the mixed material thoroughly before spraying.

Table I

Pot life versus temperature

Temperature	Pot life
60°F to 70°F (17°C to 21°C)	3-4 hours
71°F to 80°F (22°C to 27°C)	2-3 hours
81°F to 95°F (27°C to 35°C)	1-2 hours

Note: Discard any unused material that has exceeded its usable pot life.

Spray equipment

Desoprime® HS sanding surfacer is compatible with all forms of spray equipment.

HVLP

Airverter

Tip size	1.2 or 1.5 mm
Air cap	10 or 12
Compressor pressure	40 to 60 psi
Atomization pressure at gun	10 psi maximum

Binks Mach I

Tip size	#91 or #94
Pot pressure	15 to 35 psi
Atomization pressure at gun	10 psi maximum

Graco 1265

Tip size	0.047 to 0.057 inches
Pot pressure	15 to 35 psi
Atomization pressure at gun	10 psi maximum

Note: 15 psi = 1 bar, 1 inch = 25.4 mm

Note: In order to achieve 45-50 psi (3 to 3.5 bar) 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 II lists air regulator pressure requirements for different hose lengths.

Table II

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

Air hose length	Air regulator pressure
4 feet (2 meters)	45 psi (3 bar)
15 feet (5 meters)	50 psi (3.5 bar)
25 feet (8 meters)	55 psi (4 bar)
35 feet (11 meters)	65 psi (4.5 bar)
50 feet (15 meters)	70 psi (5 bar)
75 feet (23 meters)	85 psi (6 bar)
100 feet (30 meters)	100 psi (7 bar)

Application

Apply Desoprime® HS sanding surfacer to an average wet film thickness of 3.0 mils (75 microns) per coat. This can be accomplished by one horizontal application with a 50% overlap or with a box coat (one pass vertically and one pass horizontally). Multiple coats can be applied by waiting 15 minutes between coats. The total maximum dry film thickness before sanding is more than 9 mils (225 microns). The recommended dry film thickness after sanding is 1 to 9 mils (25 to 225 microns).

Application conditions

The best conditions for applying Desoprime® HS sanding surfacers are 55°F to 95°F (13°C to 35°C) and 15% to 95% relative humidity. The following table describes the cure characteristics at various temperatures.

Cure schedule

Table III

Cure characteristics versus temperature

	60 - 70°F (17 - 21°C)	71 - 80°F (22 - 27°C)	81 - 95°F (27 - 35°C)
Dry time			
Dry to sand	3 hrs	2 hrs	1 1/2 hrs
Dry to overcoat (minimum)	3 hrs	2 - 3 hrs	1 - 2 hrs
Dry to fly	48 hrs	48 hrs	36 hrs
Ultimate cure	7 days	7 days	7 days

Accelerated cure

15 minutes flash off at 77°F (25°C), then 30 minutes at 120°F (49°C).

Clean up

Flush the spray equipment with Desoclean® 45 cleaner.

This sanding surfacer is a chemically reacting system. It is no longer soluble in solvents after curing. For this reason the equipment should be cleaned as soon as possible after the sanding surfacer 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

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1-800-228-5635.**

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All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

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DeSoto® Aerospace Coatings

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