

TECHNICAL DATA

DeSoto® IFT Integral Fuel Tank Coatings

Description

DeSoto® Integral Fuel Tank coatings are chemically cured acid and fluid resistant urethane coatings intended for the protection against fuel contaminants. These products are designed to provide maximum protection for non-ferrous metals, against fresh or salt water, aircraft fuels, hydraulic fluids, engine oils and dilute acid solutions. It offers excellent adhesion to chemically treated surfaces and is unique in having good adhesion to titanium and stainless steel. It exhibits very good intercoat compatibility with sealants and touch-up materials when properly cleaned, even after long term exposure to fuel. This material contains photochemically reactive solvents per SCAQMD Rule 102.

DeSoto® Integral Fuel Tank coatings are used to protect the inside of an aircraft's fuel tank against corrosion from fuel contaminants. DeSoto® Integral Fuel Tank coatings are compatible with all current spray equipment and are easy to apply in a variety of environmental conditions. For further details on application parameters, consult your local PPG Aerospace Application Support Center.

DeSoto® Integral Fuel Tank coatings are qualified to the following specifications:

- AMS-C-27725 Type II
- BAC 5793
- BMS 10-101
- DMS 1850
- DHMS C4.06 Type I, Class A, Grade A
- MIL-C-27725

DeSoto® Integral Fuel Tank coatings are compatible with the following PRC-DeSoto International fuel tank sealants:

- PR-1422
- PR-1440
- PR-1750
- PR-1770
- PR-1828
- P/S 890

Application Properties (Typical)

Product code number	
Base (Yellow)	823-011
Activator	910-099
Thinner	020-037
Base (Yellow)	823-707
Activator	910-702
Thinner	020-707
Base (Green)	825X309
Activator	910-702
Thinner	020-707

Volatile organic compound (VOC)	
EPA method 24, mixed system	650 g/l, max.

Mix ratio (by volume)	
Base	4 parts
Activator	1 part
Thinner	4 parts

Note: DMS 1850 requires a mix ratio (by volume) of 4:1:5 for the 823-70 material. For brushing applications, less than four volumes of thinner may be used. When mixed, 823-707 requires a 30 minute induction time before use. 823-011 requires a 15 minute induction time before use.

Viscosity @ 77°F and 50% relative humidity	
Initial, Ford #4 cup	10 - 20 sec.
Pot life (8 hours)	20 sec. max.

Note: Higher temperatures and humidities will shorten the pot life. The use of less than four volumes of thinner for brushing will shorten the pot life.

Dry film density	
823-011/910-099/020-037	
0.00850 lbs/ft² @ 1.0 mil dry film	
(41.5 g/m² @ 25 microns dry film)	
823-707/910-702/020-707	
0.00891 lbs/ft² @ 1.0 mil dry film	
(43.5 g/m² @ 25 microns dry film)	
825X309/910-702/020-707	
0.00863 lbs/ft² @ 1.0 mil dry film	
(42.2 g/m² @ 25 microns dry film)	

Theoretical coverage	
823-011/910-099/020-037	
421 ft²/gal @ 1.0 mil dry film	
(10.3 m²/l @ 25 microns dry film)	
823-707/910-702/020-707	
399 ft²/gal @ 1.0 mil dry film	
(9.79 m²/l @ 25 microns dry film)	
825X309/910-702/020-707	
433 ft²/gal @ 1.0 mil dry film	
(10.6 m²/l @ 25 microns dry film)	

DeSoto® IFT Integral Fuel Tank Coating

Dry hard @ 77°F (25°C), 50% relative humidity
Tack free 2 hours, max.
Dry hard 24 hours
Dry to ultimate cure 14 days

Accelerated cure @ 10-20% R.H. minimum
Dry hard
Flash off 2 hours, then 3 - 4 hrs @ 140°F (60°C)
Ultimate cure
Flash off 2 hrs, then 24 - 36 hrs @ 140°F (60°C)

Spray equipment
Compatible with all forms of spray equipment

Recommended dry film thickness 0.8 - 1.2 mils
(20 - 30 microns)

Shelf life
12 months from date of manufacture

Performance Properties (Typical)

Service temperature
-65°F to 350°F (-54°C to 177°C) Conforms

Fluid resistance
MIL-L-7808 14 days @ 180°F (82.2°C) 2H pencil
MIL-H-5605, hydraulic fld.,
14 days @ 250°F (121°C) 2H pencil
Distilled H₂O, 30 Days @ 140°F (60°C) 3H pencil

Ferric chloride (0.5%)
No softening, blistering or corrosion with a min.
resistance 5.0 megohms/mil after exposure
Immersed for 10 days @ 140°F (60°C) Conforms

Salt water and fuel resistance
No loss of adhesion or other visible
deleterious effects Immersed for 30 days
@140°F (60°C) Conforms

Resistance to simulated microbial by-product
No loss of adhesion or other visible
deleterious effects Immersed for 5 days
@ 140°F (60°C) Conforms

Sealant compatibility
MIL-S-8802 B-2 with a peel strength
of not less than 20 lbs (9 kg),
100% sealant cohesive failure Conforms

Flexibility
1/8 inch (3.2 mm) diameter
Conical Mandrel Conforms

Low temperature resistance
-65°F (-54°C) for 70 hours over four inch
(100 mm) Mandrel Conforms

Humidity resistance
No loss of adhesion or blistering Conforms

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 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 115°F (4.4°C to 46.1°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 Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS 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
1-800-AEROMIX (237-6649).

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Printed in U.S.A.

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Issue Date: 05/10
Supersedes: 02/10
Lit: 1003