

DuPont™ Imron® AF3500™ Polyurethane Topcoat

Type

Imron® AF3500™ is a high-performance single stage polyurethane topcoat.

Description

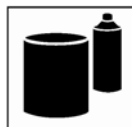
Imron® AF3500™ is a Skydrol-resistant* acrylic/polyester-based polyurethane coating designed to deliver premium appearance and durability. This high-solids topcoat has a ready-to-spray VOC of less than 3.5 lbs/gal and is available in factory-packaged whites and mixed solid colors.

Recommended Uses

Imron® AF3500™ is recommended for jet aircraft and similar general aviation applications where exceptional appearance, long-term fluid resistance, and outstanding durability are required. Imron® AF3500™ is recommended for use with:

Primers Corlar® 13550S™, Corlar® 13580S™
Surfacers Corlar® 13560S™, URO® 13520™
Basecoat/Clearcoat Imron® AF700™

General Information for Use



Components

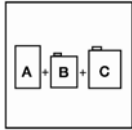
Imron® AF3500™ Color
DuPont 13110S™ Urethane Activator
Imron® 13865S™ Fast Pot-Life Extender
Imron® 13875S™ Medium Pot-Life Extender
Imron® 13885S™ Slow Pot-Life Extender
Imron® 13895S™ Very Slow Pot-Life Extender
DuPont 13765S™ Fast VOC-Exempt Reducer
DuPont 13775S™ Medium VOC-Exempt Reducer
DuPont 13785S™ Slow VOC-Exempt Reducer

Imron® Pot-Life Extenders and DuPont VOC-Exempt Reducers are available for a range of application conditions. Suggested usage ranges are dependent on air flow and relative humidity.

	70°F	80°F	90°F	100°F
Riveted Aircraft	13865S™ 13765S™	13865S™ 13765S™	13875S™ 13765S™	13885S™ 13775S™
Flush-Surface Aircraft	13865S™ 13765S™	13875S™ 13765S™	13885S™ 13775S™	13895S™ 13785S™



Aviation Finishes

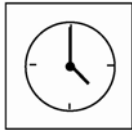


Mix Ratio

Thoroughly mix Imron® AF3500™ Color prior to activation. Filter activated material prior to spray application.

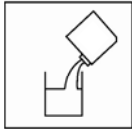
<i>Four Component System</i>	<i>Parts by Volume</i>
Imron® AF3500™ Color	2
DuPont 13110S™ Urethane Activator	1
Imron® Pot-Life Extender	0.25
DuPont VOC-Exempt Reducer	0.25

Viscosity will be 15 - 18 seconds in a Zahn #2 cup.



Pot Life and Induction Time

Pot life is 8 hours at 70°F (21°C).
No induction time is required prior to application.



Additives

Accelerator	DuPont 13803S™ (up to 2 oz per ready-to-spray gallon) DuPont 13808S™ (spot work only; up to 1 oz per RTS gallon)
Anti-Crater	DuPont 13813S™ (up to 1 oz per ready-to-spray gallon) DuPont 13814S™ (up to 1 oz per ready-to-spray gallon) Do not use FEE

Application



Substrates and Surface Preparation

Surface preparation is critical to topcoat appearance. Primers and surfacers should be properly applied and cured according to product recommendations. Surfaced substrate should be DA sanded with 320-grit or finer for best appearance. Substrate should always be thoroughly wiped/tacked immediately prior to topcoat application.



Gun Setup

Imron® AF3500™ can be applied with conventional, HVLP, air-assisted airless, and electrostatic spray equipment using pressure, siphon, or gravity fluid delivery.

<i>Conventional</i>	<i>Fluid Tip</i>
Pressure Pot	1.2 mm – 1.6 mm (.047" - .063")
Siphon Feed	1.2 mm – 1.6 mm (.047" - .063")
Gravity Feed	1.4 mm – 1.8 mm (.055" - .071")
<i>HVLP</i>	
Pressure Pot	1.0 mm – 1.4 mm (.039" - .055")
Siphon Feed	1.0 mm – 1.4 mm (.039" - .055")
Gravity Feed	1.2 mm – 1.6 mm (.047" - .063")



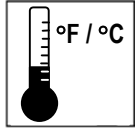
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Fluid Delivery

Conventional	10 – 12 ozs/min
HVLP	10 – 12 ozs/min

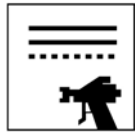
Air Pressure

Conventional	50 – 60 psi atomizing air
HVLP	25 – 30 psi atomizing air

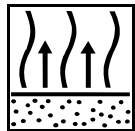
**Environmental Conditions**

Substrate and ambient temperature must be between 50°F (10°C) and 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%. Heating activated material above 110°F (43°C) may cause gelation.

For optimum appearance spray Imron® AF3500™ at 75°F (24°C) or warmer.

**Application**

Spray a medium-wet first coat. Allow first coat to flash for 30 – 45 minutes and tack-up prior to second coat. Apply second coat as a wet cross-coat to achieve 2.0 – 2.5 mils dry film build.

**Dry Times**

Force Dry at 130°F (54°C)

Flash Before Force Dry	3 hours
Dry to Touch	6 hours
Dry to Tape	10 hours

Air Dry at 70°F (21°C)

Dry to Touch	12 hours
Dry to Tape	24 hours

**Recoat**

When recoating Imron® AF3500™ with itself, Imron® AF700™ basecoat/clearcoat for stripes, or Imron® AF400™ topcoat for stripes, scuff sanding is required if the topcoat has air dried for more than 36 hours or if the topcoat has been force dried.

**Cleanup Solvents**

DuPont 13920S™ Low-VOC Cleaner
DuPont 13942S™ Reducer

Physical Properties

VOC	<i>Less Exempts (LE)</i>	<i>As Packaged (AP)</i>
Imron® AF3500™	3.6 lbs/gal	3.6 lbs/gal
Ready-to-Spray Imron® AF3500™	3.5 lbs/gal	3.2 lbs/gal

Factory-Packaged and Mixed Colors

Color	Whites and solid colors
Closed Cup Flash Point	20°F – 73°F
Shelf Life	2 years (Unopened at 50° – 110°F)

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Ready-to-Spray* (Will vary with color)

Theoretical Coverage	780 ft ² /gal average at 1 mil dry film thickness (775 – 790 ft ² /gal)
Weight Solids	60% average (55 – 64%)
Volume Solids	49% average (48 – 50%)
Gallon Weight	9.4 lbs/gal average (8.4 – 10.3 lbs/gal)

**Using Imron[®] 13875S[™] Pot-Life Extender and DuPont 13765S[™] VOC-Exempt Reducer*

Dry Film

Gloss	≥ 90 measured at 60°
Recommended Film Thickness	2.0 – 2.5 mils

Coating Performance

Skydrol Resistance	Excellent
Chemical and Solvent Resistance	Excellent
Weatherability	Excellent
Humidity Resistance	Excellent
Acid and Alkali Resistance	Excellent
Abrasion Resistance	Excellent
Flexibility	Excellent

Specifications

Approved by Cessna Aircraft Company per polyurethane topcoat specification CMFS037.

Safety and Handling

DuPont is committed to helping you develop and maintain a safe working environment. Carefully read the specific warnings and precautions printed on the labels and material safety data sheets (MSDS) of all DuPont products before handling and using. These products are for industrial use by trained professional painters only. Do not permit anyone in the painting area without protective equipment per product MSDS.

Revised 12/2008

**Aviation Finishes**