

# DuPont™ Imron® AF700™ Polyurethane Basecoat

## Type

Imron® AF700™ is a high-performance polyurethane basecoat; the color enamel component of a complete multi-stage basecoat/clearcoat system.

## Description

Imron® AF700™ is a Skydrol-resistant\* acrylic/polyester-based polyurethane coating designed to deliver excellent appearance, durability, and unparalleled color. This high-solids basecoat has a ready-to-spray VOC of less than 3.5 lbs/gal and is available in solid, metallic-effect, and pearl-effect mixed colors.

## Recommended Uses

Imron® AF700™ is a versatile system recommended for aviation applications where premium color is essential in achieving designs—whether simple or complex; conservative or bold. Imron® AF700™ is ideal for accent stripes on business jets and single-engine aircraft, as well as dynamic body color on rotary-wing aircraft. Imron® AF700™ must be clearcoated to provide proper appearance and coating performance. Imron® AF700™ is recommended for use with:

Primers	Corlar® 13550S™, Corlar® 13580S™
Surfacers	Corlar® 13560S™, URO® 13520™
Topcoats	Imron® AF3500™, Imron® AF400™
Clearcoats	Imron® AF740™

## General Information for Use

### Components

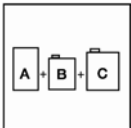
Imron® AF700™ Color  
DuPont 13100S™ Urethane Activator



See Imron® AF740™ product data sheets for clearcoat information.

### Mix Ratio

Thoroughly mix Imron® AF700™ Color prior to activation. Filter activated material prior to spray application.

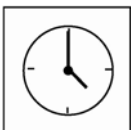


Two Component System	Parts by Volume
Imron® AF700™ Color	3
DuPont 13100S™ Urethane Activator	1
Reduce up to 5% with DuPont™ 13775S™ reducer	

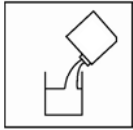
Viscosity will be 17 - 21 seconds in a Zahn #2 cup.

### Pot Life and Induction Time

Pot life is 2 hours at 70°F (21°C).  
No induction time is required prior to application.



Aviation Finishes



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**Additives**

- Accelerator      DuPont 13801S™ for improved pot life/dry (up to 2 oz per ready-to-spray gallon)  
 DuPont 13803S™ for improved dry time (up to 2 oz per ready-to-spray gallon)  
 DuPont 13808S™ for fast dry; limited area work (up to 1 oz per RTS gallon)
- Anti-Crater      DuPont 13813S™ (solid colors, up to 1 oz per ready-to-spray gallon)  
 Do not use FEE or DuPont 13814S™

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**Application****Substrates and Surface Preparation**

Surface preparation is critical to basecoat/clearcoat appearance. Primers, surfacers, or topcoats should be properly applied and cured according to product recommendations. For accent colors, follow body-color recoat-window guidelines to ensure proper adhesion—scuff sanding as required. Substrate should always be thoroughly wiped/tacked immediately prior to basecoat application.

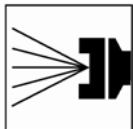


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**Gun Setup**

Imron® AF700™ 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	1.0mm – 1.4mm (.039" - .055")
Siphon Feed	1.0mm – 1.4mm (.039" - .055")
Gravity Feed	1.2 mm – 1.6 mm (.047" - .063")
<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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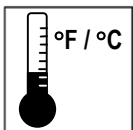
**Fluid Delivery**

Conventional	10 – 12 oz/min
HVLP	10 – 12 oz/min

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**Air Pressure**

Conventional	50 – 60 psi atomizing air
HVLP	30 - 35 psi atomizing air

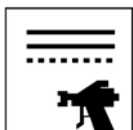


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**Environmental Conditions**

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%. Imron® AF700™ paint temperature must be at least 75°F (24°C). Heating activated paint above 110°F (43°C) may cause gelation.

For optimum appearance spray Imron® AF700™ at 75°F (24°C) or warmer.

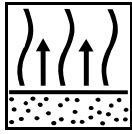


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**Application**

Apply Imron® AF700™ using a cross-coat technique. Spray a wet first coat using a top-to-bottom motion. Spray a medium-wet second coat using a side-to-side motion. Flash times between coats will vary between 30 seconds and 5 minutes. In general, the shorter the flash the smoother the appearance.

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### Dry Times

*Force Dry at 130°F (54°C) with 2 oz DuPont 13803S™ per ready-to-spray gallon*

Flash Before Force Dry	none required
Dry to Touch	1 – 2 hours
Dry to Tape	2 – 4 hours

*Air Dry at 70°F (21°C) with 2 oz DuPont 13803S™ per ready-to-spray gallon*

Dry to Touch	2 – 3 hours
Dry to Tape	7 – 9 hours



### Recoat

When recoating Imron® AF700™ with itself or with clearcoat, scuff sanding is required if the basecoat has air dried for more than 48 hours or if the basecoat 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® AF700™	3.8 lbs/gal	3.6 lbs/gal
Ready-to-Spray Imron® AF700™	3.4 lbs/gal	3.2 lbs/gal
<i>Mixed 3:1 with DuPont 13100S™ Urethane Activator</i>		

#### Mixed Colors

Color	Solid, metallic, and pearl colors
Closed Cup Flash Point	20°F – 73°F
Shelf Life	1 year (Unopened at 50° – 110°F)

#### Ready-to-Spray

Theoretical Coverage ft <sup>2</sup> /gal)	800 ft <sup>2</sup> /gal average at 1 mil dry film thickness (790 – 810)
Weight Solids	60% average (57 – 67%)
Volume Solids	50% average (49 – 51%)
Gallon Weight	8.9 lbs/gal average (8.3 – 11.0 lbs/gal)

#### Dry Film

Gloss	≥ 90 measured at 60° (with clearcoat)
Recommended Film Thickness	1.0 – 1.5 mils

### Coating Performance

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

\*\*With Imron® AF740™ Polyurethane Clearcoat



**Aviation Finishes**

## **Safety and Handling**

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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

