DuPont™ Imron® AF400™
Polyurethane Topcoat

Type
Imron® AF400™ is a high-performance single stage polyurethane topcoat.

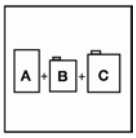
Description
Imron® AF400™ is an acrylic/polyester-based polyurethane coating designed to deliver excellent appearance and durability. This high-solids topcoat has a ready-to-spray VOC of less than 3.5 lbs/gal and is available in factory-packaged whites and mixed colors.

Recommended Uses
Imron® AF400™ is recommended for riveted aircraft and similar general aviation applications where excellent appearance, durability, sag resistance, and ease of use are required. Imron® AF400™ is ideal for air dry applications where forced drying (bake) is not available, and offers activator options for optimum performance in both accent stripe and overall body color applications. Imron® AF400™ 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® AF400™ Color
DuPont™ 13100S™ Urethane Activator
DuPont™ 13110S™ Urethane Activator *(Optional for overall body solid colors)*

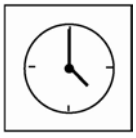


Mix Ratio
Thoroughly mix Imron® AF400™ Color prior to activation. Filter activated material prior to spray application.

Two Component System	*Parts by Volume*
Imron® AF400™ Color	3
DuPont™ 13100S™ or 13110S™ Urethane Activator	1

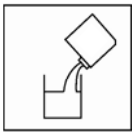
DuPont™ 13110S™ Urethane Activator is not recommended for metallic effect colors.

Viscosity will be 9 - 12 seconds in a Zahn #3 cup.



Pot Life and Induction Time
Pot life is 2 hours at 70°F (21°C) (with either DuPont™ 13801S™ or DuPont™ 13803S™).
No induction time is required prior to application.

DUPONT Aviation Finishes



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)

Addition of 2 oz per ready-to-spray gallon of either DuPont 13801S™ or DuPont 13803S™ is recommended for most all applications in order to provide longer pot life.

Anti-Crater	DuPont™ 13813S™ (solid colors, up to 1 oz per ready-to-spray gallon) DuPont™ 13814S™ (solid colors, up to 1 oz per ready-to-spray gallon) Do not use FEE.
Application Enhancer:	DuPont™ 19379S™ for hot weather use (up to 4 oz per RTS gallon)

Application

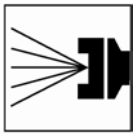
Substrates and Surface Preparation

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 240-grit or finer for best appearance. Substrate should always be thoroughly wiped/tacked immediately prior to topcoat application.

Gun Setup

Imron® AF400™ can be applied with conventional, HVLP, air-assisted airless, and electrostatic spray equipment using pressure, siphon, or gravity fluid delivery.

Conventional	*Fluid Tip*
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")
HVLP	
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")

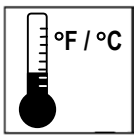


Fluid Delivery

Conventional	8 – 10 ozs/min
HVLP	8 – 10 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® AF400™ at 75°F (24°C) or warmer.

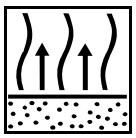
Application

For small areas (accent stripes) with DuPont™ 13100S™ Urethane Activator

Spray a Medium-wet first coat followed by a second medium-wet crosscoat to achieve 2.0-2.5 mils dry film build.

For large areas (solid body colors) with ™ 13110S™ Urethane Activator

Spray a medium-wet first coat. Allow first coat to flash for 5 – 20 minutes 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) with 2 oz DuPont™ 13803S™ per ready-to-spray gallon

Flash Before Force Dry	15 minutes
Dry to Touch	1 hour
Dry to Tape	2 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	3 – 7 hours

Recoat

When recoating Imron® AF400™ with itself or Imron® AF700™ basecoat/clearcoat for stripes, scuff sanding is required if the topcoat has air dried for more than 16 hours or if the topcoat has been force dried.

Cleanup Solvents

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

Physical Properties

VOC	*Less Exempts (LE)*	*As Packaged (AP)*
Imron® AF400™	3.8 lbs/gal	3.6 lbs/gal
Ready-to-Spray Imron® AF400™	3.4 lbs/gal	3.2 lbs/gal

Factory-Packaged and Mixed Colors

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

Ready-to-Spray*

Theoretical Coverage	810 ft^2/gal average at 1 mil dry film thickness (790 – 830 ft^2/gal)
Weight Solids	61% average (57 – 67%)
Volume Solids	51% average (49 – 52%)
Gallon Weight	9.2 lbs/gal average (8.3 – 10.8 lbs/gal)

Dry Film

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

Coating Performance

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

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.

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

Revised 12/2008