



DuPont OEM/Fleet Finishes

TECHNICAL MANUAL

IMRON® 5000™ LOW VOC 3.5

POLYURETHANE ENAMEL

TYPE

A high-performance, low VOC (<3.5 lbs/gal RTS), two-component polyurethane enamel.

DESCRIPTION

Imron® 5000™ is designed to deliver the premium quality and performance of standard Imron® Polyurethane Enamel at a maximum applied VOC of 3.5 lbs/gal. The Imron® 5000™ line includes factory package, mixing machine and lead-free capability.

SUGGESTED USES

A high-gloss, extremely durable, chemical and solvent resistant air-dry enamel that is available in both solid and metallic colors. It is an extremely versatile product and is recommended for use on aircraft, commercial vehicles, trucks, trailers and other applications where superior performance and appearance is required.

NOT RECOMMENDED FOR

- Immersion service
- Use over lacquer finishes.

COMPATIBILITY WITH OTHER COATINGS

- Compatible with all DuPont OEM Primer systems.

DRY FILM CHARACTERISTICS

Chemical Resistance	EXCELLENT
Weatherability	EXCELLENT
Humidity Resistance	EXCELLENT
Acid Resistance	EXCELLENT
Alkali Resistance	EXCELLENT
Solvent Resistance	VERY GOOD
Abrasion Resistance	EXCELLENT
Flexibility	EXCELLENT

MAXIMUM SERVICE TEMPERATURE

- 200°F (92°C) in continuous service

VOLUME SOLIDS – WILL VARY WITH COLOR SELECTED

- 49.0% average unactivated
- 54.5% average RTS mixed 3:1 w/Imron® 193S™ Activator or Imron® 194S™ Activator

WEIGHT SOLIDS – WILL VARY WITH COLOR SELECTED

- 61.0% average unactivated
- 65% average RTS mixed 3:1 w/Imron® 193S™ or Imron® 194S™

WEIGHT PER GALLON

- 9.79 lbs/gal average unactivated

SUGGESTED DRY FILM THICKNESS

- 1.8 – 2.0 mils

THEORETICAL COVERAGE PER GALLON

- 874 sq. ft./gal average @1mil DFT

GLOSS

- High
- Imron® 8928S™ Flattening Base is available to obtain lower gloss if desired.

COLOR

- Available in solid or metallic colors

FLASH POINT (CLOSED CUP)

- Below 80°F (27°C)

SHELF LIFE

- 12 months minimum

APPLICATION SOLVENTS

Ready-to-spray below 3.5 lbs/gal VOC upon activation. Further reduction may result in greater than 3.5 VOC.

CLEANUP SOLVENTS

- DuPont 3602S™ Thinner
- DuPont 8685S™ Reducer
- DuPont 8695S™ Reducer

ACTIVATION (MIX RATIO)

Add 3 parts Imron® 5000™ with 1 part Imron® 193S™ (or Imron® 194S™ for reduced HAPS applications) and mix thoroughly. Filter material prior to spray application. To the activated gallon, add up to 2 oz. MasterTint® 389S™ Accelerator or 1 oz. MasterTint® 8989S™ Accelerator.

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(Note: MasterTint® 8989S™ will shorten pot life.) Activated product will have a viscosity of 11 – 20 seconds in a Zahn 3 cup, depending on color.

INDUCTION TIME

- No induction time required

POT LIFE

- 2 hours at 70°F (21°C)
- 2-4 hours at 70°F (21°C) with 2 oz MasterTint® 389S™ per activated gallon
- 45 minutes at 70°F (21°C) with 1 oz MasterTint® 8989S™ per activated gallon

ADDITIONAL COMMENTS

- Heating activated material above 110°F (43°C) will cause gelation.
- When recoating Imron® 5000™ with itself, sanding is required if the enamel has air dried more than 16 hours or has been force dried.

APPLICATION CONDITIONS

Do not apply if material, substrate or ambient temperature is less than 50°F (10°C) or above 110°F (43°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%.

APPLICATION

- Thoroughly mix Imron® 5000™ prior to activation. The use of a cyclone shaker is recommended.
- For siphon gun application, set air pressure to 60 – 65 psi at the gun for solids and metallics.
- For pressure pot set air pressure at 60 – 70 psi at the gun for solid colors and metallic colors. Fluid delivery should be set for 10 – 12 oz/min.
- For solid colors and metallics, use 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.
- Do not spray Imron® 5000™ if the paint temperature is less than 75°F (24°C). Use warm water or paint heaters to heat the paint to an optimum temperature of 85-95°F (29-35°C). (In case of fish eyes, use 1 oz DuPont® 359S™ Paint Additive per ready-to-spray gallon on Imron® 5000™ for solid colors, use 1 oz of

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DuPont VG-F-70050™ for metallic colors. Do not use FEE.)

CURE TIME AT RECOMMENDED THICKNESS – 77°F (25°C) & 50% RH

	Without Accelerator	w/MasterTint® 389S™	w/MasterTint® 8989S™
■ Dry to Touch	4-6 hours	1-2 hours	.5-1 hour
■ Tack Free	10-12 hours	2-4 hours	1-2 hours
■ Tape Free	12-24 hours	4-6 hours	2-4 hours
■ Dry to Assemble	72 hours	72 hours	72 hours

Product may be force dried 30 min at 140-160°F (60-71°C) after a flash time of 15 minutes following application of final coat.

APPLICATION EQUIPMENT

- Pressure Pot (recommended)
- Gravity Feed
- Suction Spray
- HVLP
- Air-Assisted Airless
- Airless

ENVIRONMENTAL

- VOC content (lbs/gal)
Imron® 5000 HN™ LE AP
3.9 3.9
RTS mixed 3:1 w/ Imron® 193S™ or 194S™ 3.5 3.5
- Imron® 194S™ may be used for reduced HAPS applications.

FOR VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in your area. Follow recommendations in the DuPont Compliant Products Chart for your area.

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 of all DuPont products before handling and using. These products are for industrial use by trained professional painters only.

08/02