



IMRON® 3.5 HG-D™

HIGH GLOSS DTM URETHANE (VJ QUALITY)

Imron® 3.5 HG-D™ is a high-gloss, **high build**, two-package, VOC conforming (3.5 lbs./gal.), Low HAPS, DTM acrylic polyurethane based on unique DuPont technology. The resulting product provides a ready to spray, highly durable one step coating suitable for non-corrosive exposures and selected harsher environments.

SUGGESTED USES:

As a quality high build, high-gloss, polyurethane DTM on hot rolled carbon steel, weathered galvanized*, aluminum, dry wall and wood where:

- A one step DTM (direct-to-metal) application is desired.
- High build either as a DTM or High Build Topcoat is desired.
- Outstanding color and gloss retention are required
- Excellent adhesion and flexibility are desired
- Application by brush and roller, in addition to spraying, may be necessary
- Application to 35° F may be required
- Excellent Hiding

*See Additional Comments #5.

NOT RECOMMENDED FOR:

- Immersion service
- Severely corrosive environments (as a one coat system)

COMPATIBILITY WITH OTHER COATINGS AND SURFACES:

Imron® 3.5 HG-D™ can be applied DTM (direct-to-metal) over properly prepared: aluminum, hot rolled carbon steel, and weathered galvanized* surfaces, in non-corrosive exposures and selected harsher environments (contact DuPont for specific recommendations). It may be used over most aged and hard cured coatings in good condition. Testing for lifting, bubbling and adhesion is recommended to assure compatibility with unknown coatings. Imron® 3.5 HG-D™ can also be used over properly primed surfaces in exterior exposures. Recommended primers include: Imron® 2.8 PR™, Tufcote® 1.9 HG-D™, Tufcote® 3.3 PR™, Tufcote® 3.5 PR™, Corlar® 2.1 PR™, Corlar® 3.2 PR™ and Corlar® LV PR™. Contact your DuPont Performance Coatings Representative for specific recommendations.

*See Additional Comments #5.

MAXIMUM SERVICE TEMPERATURE:

250°F (93°C) in continuous service

PERFORMANCE PROPERTIES: @ SUGGESTED DFT

Weather: Excellent
Humidity: Very Good
Chemical: Good

VOLATILE ORGANIC CONTENT (VOC) THEORETICAL:

Imron® 3.5 HG-D™ no reduction	3.5 lbs/gal.
Imron® 3.5 HG-D™ reduced with 1 oz. RT002P™	3.5 lbs/gal.

All technical advice, recommendations and services are rendered by the Seller gratis. They are based on technical data which the Seller believes to be reliable, and are intended for use by persons having skill and know-how at their own discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from their use by Buyer in whole or in part. Such recommendations, technical advice or services are not to be taken as a license to operate under or intended to suggest infringement of any existing patent.

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APPLICATION INSTRUCTIONS

SURFACE PREPARATION:

For best results, abrasive blast surface to an SSPC-SP-6 Commercial Blast. Profile should be 2.0 to 2.5 mils. Can be applied over other surface preparations as well such as phosphatizing. Surface should be clean dry and free of any oil and grease. When extra corrosion resistance is required, prime steel surfaces with Imron® 2.8 PR™, Tufcote® 3.5 PR™, Corlar® 2.1 ST™ or other appropriate primer. See Additional Comment #4, 5.

ACTIVATION:

Mix pigmented portion until uniform in color. Mix 8 parts 633-XXXXX color to one part DuPont FG-633™ activator. Measure out appropriate amounts and add activator with mixing. Material can be used immediately. There is no induction time.

(Note: Mix in one's yields 1.125 gallons. One gallon mix requires one pint of Activator. Mix in five's yields 5.625 gallons. Five gallon mix requires 2.5 quarts activator.)

POT LIFE:

3-4 hours @ 70°F

REDUCTION:

No reduction necessary to achieve 10 mils wet.

When rolling Imron® 3.5 HG™, add 1 oz per activated gallon of DuPont RT002P™ Rolling Thinner to reduce bubbling.

Any thinning may hamper ability to achieve high film builds and may cause sagging to occur.

Any addition of thinner will eliminate compliance with air pollution regulations limiting VOC's to 3.5 lb/gal.

Application by brush or roller may require additional coats to achieve recommended dry film thickness.

APPLICATION THINNERS:

Spray, Brush	None recommended
Electrostatic Spray	None recommended
Rolling	DuPont RT002P™

CLEAN UP THINNERS:

Y-32035

APPLICATION CONDITIONS:

Do not apply if material, substrate or ambient temperature is below 35°F (2°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 EQUIPMENT:

- Apply by brush, roll, or spray.
- Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

BRUSH & ROLL:

- ¼"- ½" nap Wooster Pro/Doo-Z roller cover. Keep roll wet. Roll in one direction, rewet, then cross roll.
- 2"-4" Wooster China Bristle Brush

CONVENTIONAL SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>	<u>Sata</u>
Spray Gun:	2001	JGA	K3RP
Fluid Nozzle:	63CSS	FF (1.4)	1.1
Pot Pressure:			12

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Atomizing Pressure: 36
Air Cap: 63PR 777

HVLP SPRAY:

	<u>Binks</u>	<u>DeVilbiss</u>
Spray Gun:	Mach 1	GTi
Fluid Nozzle:	94 (1.4)	1.4
Air Cap:	95AP	2000

AIRLESS SPRAY:

Pump:	Graco Extreme 33:1
Airless Gun:	Graco 238591
Fluid Hose:	3/8" x 100' max.
Tips:	11 to 17 thousandths
Minimum pressure:	21-2400 psi. (adjust to remove tails)

ADDITIONAL COMMENTS:

1. Reduction of Imron® 3.5 HG-D™ is not recommended. For best results, apply Imron® 3.5 HG-D™ in multiple passes.
2. Imron® 3.5 HG-D™ is pre-accelerated. Under normal conditions, additional amounts of accelerator do not significantly improve dry times and is not recommended.
3. For application at 35°F and for best results, use VHY-691™ at 2 ozs per mixed gallon.
4. For best results, aluminum surfaces should be properly treated. Surface preparations may include sanding, alodine treatment or other preparation necessary to ensure adhesion.
5. For galvanized steel: surface preparations may include detergent washing and abrasion for new surfaces and detergent washing for weathered surfaces. For new galvanized surfaces, an appropriate primer such as Corlar® 2.1 ST™ or Tufcote® 1.9 HG-D™ should be used.
6. Custom Color Mix Quality (VJ), requires a Custom Color Mix Formula and 790P, 791P Custom Color Mix Binders.



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ASTM INFORMATION

Physical properties are for Imron® 3.5 HG-D™ Direct to metal (DTM) only. Properties may be enhanced by use of appropriate primers. For other system recommendations, please contact DuPont.

- ◆ Paint System Imron® 3.5 HG-D™
- ◆ Type/Color Polyurethane – White
- ◆ DFT 5.0 – 6.0 mils
- ◆ Salt Fog (ASTM B117) Grit Blasted Hot Rolled Steel
720 hours 2 mm creep avg from scribe
- ◆ Relative Humidity (ASTM D2247) Grit Blasted Hot Rolled Steel
1000 hours #8 few surface blisters
- ◆ Adhesion (ASTM D335): 5A, 5B
- ◆ UV Con (ASTM D4587/340A) 1000 hours 90% retention (avg. across colors)
- ◆ Impact (ASTM D2794): Iron Phosphated Cold Rolled Steel
100 in lbs - Forward
80 in pounds - Reverse
- ◆ Mandrel Bend (ASTM D522): 1/8 " mandrel – no cracking
- ◆ Chemical Resistance: (The following are chemical resistance ratings (1=poor, 10=excellent), after exposure to listed chemicals and 24 hour watch glass exposure:

1 & 10% Sulfuric Acid – 10	DBE – 2	Cutting Oil – 10
1% Nitric Acid – 9	VM & P Naptha – 8	Uleaded Gas – 10
10% Nitric Acid – 7	Aromatic 100 – 7	Skydrol – 6
10 % Phosphoric Acid – 9	Iso-Propanol 8	Tide Soap – 10
MEK – 8	Butyl Cellosolve – 4	Fantastic – 10
1+ 5% Ammonia – 10	Ethyl Acetate – 8	Drano – 10
10% Ammonia – 9	28% Ammonia – 8	Bleach – 10
1 & 5% Sodium Hydroxide – 10	Mineral Spirits – 10	Brake Fluid – 4
10% Sodium Hydroxide – 7	Motor Oil – 8	Cola – 10
Glycol Ether – 4	Hydraulic Oil – 10	
- ◆ MEK Double Rubs: 100 Double rubs: 4B Moderate Scuffing, Some Softening
- ◆ Hardness (Pencil): F-HB
- ◆ Hardness (Persoz): 24