



IMRON[®] 1.2 HG-C[™]

HIGH GLOSS CLEAR WATERBORNE POLYURETHANE COPOLYMER

Imron[®] 1.2 HG-C[™] (HGC-01[™]) is a high gloss clear, isocyanate-free, single component, VOC conforming (1.2 lbs/gal), "zero" HAPs coating based on unique DuPont waterborne polyurethane copolymer technology. The resulting highly durable coating establishes a new standard of performance for waterborne coatings delivering very good chemical and corrosion resistance.

SUGGESTED USES

As a high gloss clear topcoat over properly prepared and coated carbon steel (blasted, phosphate-treated, mill scale bearing), galvanized steel, stainless steel, treated aluminum, e-coat, concrete, concrete block, fiberglass, wood and many plastics where:

- Restoring gloss to dull, faded finishes avoids the cost of complete re-painting.
- Coated surfaces must be easy to clean.
- Low VOC and/or "zero" HAPs coating is required.
- Minimizing environmental impact and reducing cost for permitting, abatement and waste disposal are important.
- 30 minute recoat, 2 hour air cure or 20 minute bake will improve productivity.
- One component, no induction time and unlimited pot life minimize work and speed preparation time.
- Application by brush and roller, in addition to spraying, may be necessary.
- Very good color and gloss retention are desired.

NOT RECOMMENDED FOR:

- Immersion Service
- Direct-to-metal applications

COMPATIBILITY WITH OTHER COATINGS

Imron[®] 1.2 HG-C[™] (HGC-01[™]) can be applied over Imron[®] 1.5 PR[™] or Imron[®] 1.5 ST-D[™] for a complete waterborne system or over Corlar[®] epoxies when coating rusted surfaces. Imron[®] 1.2 HG-C[™] (HGC-01[™]) may be mixed with Imron[®] 1.8 FT-C[™] to produce semi-gloss or satin clear finishes.

Imron[®] 1.2 HG-C[™] (HGC-01[™]) is highly compatible with most coating types. 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. Contact your DuPont Performance Coating representative for specific recommendations.

MAXIMUM SERVICE TEMPERATURE

250°F (121°C)

PERFORMANCE PROPERTIES

Imron[®] 1.5 PR[™] /Imron[®] 1.2 HG-C[™] (HGC-01[™]) system – 4-6 mils DFT

Humidity: (ASTM D-2447)	>2000 hours	
Salt Fog: (ASTM B117)	2000 hours (Bondrite 1000 panel)	no blisters
	500 hours (blasted hot rolled steel)	no blisters
Flexibility: (ASTM D-1737)	@70°F	160 in/lbs
	@-50°F	100 in/lbs
Pencil Hardness: (ASTM 3363)	F to H	
Adhesion: (ASTM D-3359)	Adheres to e-coat, steel, steel castings, treated aluminum, many plastic surfaces, previously painted surfaces, concrete, concrete block, fiberglass, (always test coatings for compatibility and prepare surfaces properly)	

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High Gloss Clear Waterborne Polyurethane Copolymer

CHEMICAL RESISTANCE

Solvent/Chemical Resistance: (ASTM D-1308) 24 hour watch glass exposure test (rating – possible 10)

Coke – 10	Cutting Oil – 9+	Ethyl Acetate – 8	10% H ₂ SO ₄ – 8+	1% Ammonia – 8
Bleach – 9+	Hydraulic Oil – 10	Aromatic HC – 8	1% Phosphoric – 9	5% Ammonia – 8
Fantastic – 6+	Motor oil – 10	1% HCL Acid – 8+	1% NaOH – 7	Toluene – 9
Unleaded Gas – 8+	MEK – 9	1% H ₂ SO ₄ – 8+	Mineral Spirits – 8+	1,1,1 TCE - 9

VOC (THEORETICAL)

VOC Less Exempt 1.2 lbs./gal. (143.8 g/l)

COLOR

Clear (HGC-01™)

GLOSS (ASTM D523):

High Gloss 80-85 @ 60° angle. May be mixed with Imron® 1.8 FT-C™ to produce semi-gloss or satin clear finishes.

CURE TIME – HOURS @ 77°F (25°C), 50% R.H. @ SUGGESTED DFT*

Tack free	20-30 minutes
Dry to Recoat	30 minutes with itself, 1 hour with solvent borne
Dry To Handle	1 hour
Hard Dry	2 hours or bake 120°-160°F for 15-20 minutes

*Higher temperatures and air flow will reduce dry times.

THEORETICAL COVERAGE PER GALLON*

640 ft² (15.72 m²/L) @ 1 mil DFT 213 ft² (5.23 m²/L) @ 3 mils DFT

*Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

SUGGESTED FILM BUILD

5 – 7 mils (125 – 175 µm) wet (WFT) 2 – 3 mils (50 – 75 µm) dry (DFT)

Film builds below 2 mils DFT will not provide maximum film properties

VOLUME SOLIDS:

40% ± 1%

WEIGHT SOLIDS:

41% ± 1%

WEIGHT PER GALLON:

8.56 lbs. (3.88 kg)

FLASH POINT (TAG CLOSED CUP)

>200°F (93°C)

PACKAGING

1 gallon (full) 5 gallons (full)

SHIPPING WEIGHT (LBS) APPROXIMATE/AVG.

1 gallon container – 10 5 gallon container – 45

SHELF LIFE & STORAGE CONDITIONS

Store in a dry, well-ventilated area. Storage temperatures should be between 35°F (2°C) and 120°F (48°C). Do not freeze.

■ Shelf life – 1 year minimum

SAFETY INSTRUCTIONS

Consult the Material Safety Data Sheet for this product prior to use.



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APPLICATION INFORMATION

SURFACE PREPARATION

For best results apply Imron® 1.2 HG-C™ (HGC-01™) over Imron® 1.5 ST-D™, Imron® 1.5 PR™, Imron® 1.2 HG™ or other DuPont Industrial Coatings. All previously painted surfaces must be tightly adhering. All surfaces must be clean, dry and free of loose rust, oil, grease, and all other contamination.

ACTIVATION

None Required

POT LIFE

N/A. See Additional Comments in Cleanup Thinners.

REDUCTION

When thinning, use clean near neutral, (pH 6-8) water. If you do not know the quality or pH of the local water supply, thin with distilled or de-mineralized water. **Do not** thin with hard water.

<u>Thinning recommendations</u>	<u>Reduction Amount</u>
Airless	No reduction recommended
Conventional Pressure Pot	0-10% by volume
HVLP	0-10% by volume
Brush & Roll	0-10% by volume

Note: Reduction with water will slow dry time and reduce film build.

- Do not mix in a paint shaker.

- When adding water, mechanically power mix Imron® 1.2 HG-C™ (HGC-01™) with low (100-200) rpm's until smooth and uniform.

APPLICATION THINNERS & ADDITIVES

Water

CLEANUP THINNERS

Water (Imron® 1.2 HG-C™ (HGC-01™)dries very fast when exposed to air. Spray equipment should be cleaned as soon as possible after use. If not cleaned after 20-30 minutes, material could harden, plugging spray tips and equipment. If you plan to leave spray gun for more than 20-30 minutes, place in it a bucket of fresh water.) See additional Comments #1.

APPLICATION CONDITIONS

Do not apply if the application surface or ambient temperature is below 50°F (10°C) or above 95°F (35°C), or if the atmospheric temperature is within 5°F of the dew point. Relative Humidity should be above 30% and below 90%.

APPLICATION EQUIPMENT

- ◆ Apply by spray for best results. Imron® 1.2 HG-C™ (HGC-01™)may also be applied by brush or roller with some sacrifice in appearance.
- ◆ Do not apply using a suction or gravity feed gun.
- ◆ Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

ROLLER

Wooster® Pro/Doo-Z®, ¼" – ½" nap

BRUSH

Wooster® Nylon Bristle

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AIR SPRAY

Manufacturer	DeVilbiss	Sata	Graco	Iwata	Binks
Spray Gun	JGA	K3 RP	DeltaSpray XT	W-77, W-71, or W-200	2001 or 95
Fluid Tip	1.4 FF	1.1	1.0 – 1.5 mm	1.2 – 1.8 mm	1.2 – 1.8 mm
Air Cap	777				
Fluid Line	3/8"	3/8"			
Pressure Pot	15 – 25 PSI	40 PSI			
Atomizing Air	50 – 60 PSI	36 PSI			

AIRLESS SPRAY

Manufacturer	Graco	Iwata	Binks	Sata
Model	Silver or Plus	ALG or Airlessco	Airless 1	Airless 250 II
Tip Size	.011 - .015	.011 - .015	.011 - .017	.013 - .017
Pump	30:1 min	ALG 30:1 min	30:1 min	Orca 32:1 pump

ADDITIONAL COMMENTS

1. Dried Paint film, spray equipment, and mixing equipment can be cleaned by soaking and scrubbing with DuPont TY-3826™.
2. When using Imron® Waterborne Polyurethane Copolymer over rusted surfaces that cannot be blast cleaned
 - ◆ Prepare surface in accordance with SSPC SP-2 Hand Tool Clean or SSPC SP-3 Power Tool Clean.
 - ◆ Prime with Corlar® 2.1 ST™ or Corlar® LV-SG™.
 - ◆ Apply Imron® 1.5 PR™ and/or Imron® 1.2 HG™ / Imron® 1.2 HG-C™.
3. When storing partially used open containers, float ¼" of distilled or de-mineralized water over product and reseal container.
4. For best results, use dedicated spray lines, guns and stainless steel equipment.
5. Filter paint using nylon or cotton filters before filling spray equipment. Do not use polyester filters.