

Imron® 1.2 HG

High Gloss Waterborne Polyurethane (WG Quality)



GENERAL

DESCRIPTION

An isocyanate-free, high gloss, single component, VOC conforming (1.2 lbs/gal), zero HAPs coating based on unique Axalta waterborne polyurethane copolymer technology. This coating is designed to be highly durable and to establish a new standard of performance for waterborne coatings that deliver very good chemical and corrosion resistance.

PERFORMANCE PROPERTIES

Abrasion & Mechanical	Excellent
Alkalis	Excellent
Humidity	Excellent
Solvents	Excellent
Color & Gloss Retention	Excellent
Acids	Excellent
Salts	Excellent
Weather	Excellent

SUGGESTED USES:

As a high gloss topcoat on 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:

- 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
- Single coat applications of 3-5 mils dry film thickness (DFT) are required

NOT RECOMMENDED FOR:

- Immersion service or floors
- Direct applications to rusted surfaces

COMPATIBILITY WITH OTHER COATINGS

- Imron 1.2 HG can be applied over Imron 1.5 PR or Imron 1.5 ST-D for a complete waterborne coating system or over Corlar® epoxies when coating rusted surfaces.
- Imron 1.5 PR 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 Axalta Coating Systems for specific recommendations.

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.

COLOR

1632WG White	1640WG Black	1665WG Safety Blue
1633WG Shale Gray	1662WG Alert Orange	1666WG Safety Green
1635WG Clay Tan	1663WG Safety Yellow	
1637WG Cirrus Gray	1664WG Safety Red	

Specific colors can be matched in Imron 1.2 HG High Gloss quality with custom mix formulas. These custom mix formulas use specially blended mixing clears/bases to achieve the final color position. When asking for color developments with Imron 1.2 HG, please ask for quality code "WG."



MIXING

COMPONENTS

Imron 1.2 HG Factory packaged colors (WG) 1 gallon container (100% fill, 128 oz.)
5 gallon container (100% fill, 640 oz.)

MIX RATIO

Ready to use

ACTIVATION

None Required

MIXING AND 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 on a paint shaker.
- Mechanically power mix Imron 1.2 HG with low (100-200) rpm's until smooth and uniform.
- Filter paint using nylon or cotton filters before filling spray equipment. Do not use polyester filters.

APPLICATION THINNERS

Water

INDUCTION TIME

None

POT LIFE

N/A. See Additional Comments in Cleanup Thinners.



APPLICATION

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%.

SURFACE PREPARATION

For best results apply Imron 1.2 HG over Imron 1.5 ST-D or Imron 1.5 PR or other Axalta primers such as Corlar epoxies. 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.

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

APPLICATION EQUIPMENT

Apply by spray for best results. Imron 1.2 HG may also be applied by brush or roller with some sacrifice in appearance.

- Do not apply using a suction or gravity feed gun.
- For best results, use dedicated spray lines, guns and stainless steel equipment.

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

Airspray

Manufacturer	DeVilbiss	Sata	Greco	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	1.1 – 1.8	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			

Fluid lines 3/8" ID or larger are required for proper fluid delivery.

Airless Spray

Manufacturer	Graco
Pump Xtreme	33:1
Fluid Hose	3/8" X 100' Max.
Spray Gun	208663
Tip Size	.413-.515
PSI:	2400 psi min

Tips for Success

- Application by brush or roll may require multiple coats to achieve the recommended DFT.
- For best appearance, filter material prior to spray application.
- May be recoated by spray when tack-free.

CLEAN UP THINNERS

Water

Imron 1.2 HG 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. Dried paint film, spray equipment, and mixing equipment can be cleaned by soaking and scrubbing with isopropyl alcohol.



DRY TIMES

Cure Time At Recommended Thickness @ 77°F (25°C), 50% RH*

Tack free	20-30 minutes
Dry to Recoat	30 minutes with itself, 1 hour w/ 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.



PHYSICAL PROPERTIES

Maximum Service Temperature:	250°F (121°C)
Gloss (ASTM D 523)	High Gloss 75-80 @ 60° angle
Weight Solids (Avg. varies by color):	49% ± 1%
Weight per gallon-(Avg. varies by color):	9.90 lbs. (4.49 kg) average
Flash Point-Tag Closed Cup:	>200°F (93°C)
Volume Solids (Avg. varies by color):	42% ± 1%
Shipping Weight (varies by color):	1 gallon container – 11 lbs 5 gallon container – 52 lbs
Shelf Life:	1 year minimum
Theoretical Coverage Per Gallon*:	673 ft ² (16.48m ² /L) @ 1 mil DFT 224 ft ² (5.49m ² /L) @ 3 mils DFT
Suggested Film Builds**:	5 – 7 mils (125 – 175 µm) wet (WFT) 2 – 3 mils (50 – 75µm) dry (DFT) Film builds below 3-5 mils DFT will not provide maximum film properties

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

**Application by brush and roller may require additional coats to achieve recommended films thickness.

STORAGE CONDITIONS

Store in a dry, well-ventilated area. Storage conditions should be between 35°F (2°C) and 120° F (48° C). Do not allow product to freeze. When storing partially used open containers, float ¼" of distilled or de-mineralized water over product and reseal Container.

THEORETICAL VOC (LESS WATER AND EXEMPT COMPOUNDS)

VOC Less Exempt, varies with color. 1.2 lbs./gal. (143.8 g/l) average

ASTM INFORMATION

Performance properties are for Imron 1.5 PR and Imron 1.2 HG system. Properties may be enhanced by use of appropriate primers. For other system recommendations, please contact Axalta.

Paint System: Imron 1.5 PR | Imron 1.2 HG
 DFT: 4-6 mils

TEST

Humidity: (ASTM D-2447)
 Salt Fog: (ASTM B117)

Flexibility: (ASTM D-1737)

Pencil Hardness: (ASTM 3363)

QUV: (ASTM G-53)

Adhesion: (ASTM D-3359)

RESULTS

>2000 hours
 2000 hours (Bondrite 1000 panel) no blisters
 500 hours (blasted hot rolled steel) no blisters
 @70°F 160 in/lbs
 @-50°F 100 in/lbs
 F to H
 1000 hr QUV A 90% gloss retention,
 1.6 units delta E-color retention
 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)

SELECT CHEMICAL RESISTANCE

The following are chemical resistance ratings (1=poor, 10= excellent), after exposure to listed chemicals and 24 hour watch glass exposure.

Chemical	Rating	Chemical	Rating
Coke	10	1% HCL Acid	8+
Bleach	9+	1% H2SO4	8+
Fantastic	6+	10% H2SO4	8+
Unleaded Gas	8+	1% Phosphoric	9
Cutting Oil	9+	1% NaOH	7
Hydraulic Oil	10	Mineral Spirits	8+
Motor oil	10	1% Ammonia	8
MEK	9	5% Ammonia	8
Ethyl Acetate	8	Toluene	9
Aromatic HC	8	1,1,1 TCE	9

SAFETY AND HANDLING

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.

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 professional 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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