

Imron® 3.5 HG-C High Gloss Polyurethane Clear



GENERAL

DESCRIPTION

A high gloss, two-package, 3.5 lbs./gal VOC conforming aliphatic polyurethane enamel clear based on unique Axalta resin technology, producing properties of both polyester and acrylic polyurethanes. The resulting finish is designed to deliver a highly durable clear with industry leading polyurethane performance.

SUGGESTED USES:

As a high performance clear topcoat over finishes in sound condition on steel, galvanized steel, stainless steel, aluminum, concrete, concrete block, fiberglass, plastics and wood where:

- Only the cleanest, “wet look” appearance is acceptable
- Restoring gloss to dull, faded finishes avoids the cost of complete re-painting
- Outstanding gloss and color retention are desired
- Excellent resistance to chemical and/or marine environments is required
- Coated surfaces must be easy to clean
- Application may be made at temperatures as low as 35°F

NOT RECOMMENDED FOR:

- Immersion service or floors

COMPATIBILITY WITH OTHER COATINGS

- Imron 3.5 HG-C can be applied over other Axalta industrial coatings including, but not limited to, Imron solventborne polyurethanes, Imron waterborne polyurethane copolymer coatings, Corlar® epoxies, Tufcote® acrylics and Tufcote alkyd primers.
- Imron 3.5 HG-C 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.

PERFORMANCE PROPERTIES

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

COLOR

611P Clear

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



MIXING

COMPONENTS

Imron 3.5 HG-C (611P)	1 gallon container 75% fill (96 oz.)
	5 gallon container 60% fill (384 oz.)
VGY-611 Activator	1 quart container 100% fill (32 oz.)
	1 gallon container 100% fill (128 oz)

MIX RATIO

Component	Part by Vol.
Imron 3.5 HG-C (611P)	3
VGY-611 Activator	1

ACTIVATION

Thoroughly mix 3 parts Imron 3.5 HG-C (611P) Enamel, then add 1 part Imron VGY-611 Activator while stirring.

MIXING AND REDUCTION

Normally 0-3% (1-4 oz.) reduction is adequate for spray application depending upon conditions and equipment. Maximum reduction should not exceed 3%. Use Axalta 68083 Thinner. If faster recoat and handling is required, add up to 2 oz./gal VG-805™ Accelerator.

Do not shake. If air bubbles are excessive as a result of stirring, agitating or boxing the base material, allow the bubbles to dissipate prior to activation.

APPLICATION THINNERS

Spray, Brush or Roll: 68083

INDUCTION TIME

No induction period is necessary.

POT LIFE

1.5 – 2 hours @ 77°F and 50% RH. Higher temperatures and humidity will severely shorten pot life.



APPLICATION

APPLICATION CONDITIONS

This product is best applied by spray. Do not apply if the application surface temperature is below 45°F (7°C) or above 110°F (43°C), or if the atmospheric temperature is within 5°F of the dew point. For best results, application temperature should be between 65°F and 85°F. Relative Humidity should be below 90%. For application temperatures below 45°F, the use of MasterTint® 389S™ Accelerator is required. Mix only amounts that can be applied within a 1.5 – 2 hour period.

SURFACE PREPARATION

Newly primed surfaces should be clean and dry. If contaminated, detergent/water wash, then blow dry. Previously painted surfaces should have all loose paint removed and the edges feathered. Prime bare spots with appropriate primer, then restore color before applying clear.

APPLICATION EQUIPMENT

Apply by spray only.

Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

CONVENTIONAL

Manufacturer	Model	Tip Size
Sata	K3 RP	1.0-1.3mm
Devilbiss	JGA, MBC	1.1-1.4mm
Graco	DeltaSpray XT	1.0-1.5mm
Iwata	W-77, W-71, or W-200	1.2-1.8mm
Binks	2001 or 95	1.2-1.8mm
Kremlin	M22HPAP	1.2-1.8mm

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

HVLP SPRAY

Manufacturer	Model	Tip Size
Sata	3000RP HVLP	1.2-1.6mm
Devilbiss	JGVH, EXL, or FLG	1.3-1.8mm
Graco	DeltaSpray XT - HVLP	1.3-2.2mm
Iwata	LPH 200 L VLP	0.8-1.2mm
Binks	Mach 1 & 1SL	1.0-1.7mm
Kremlin	E3K HVLP	1.5-1.8mm

AIRLESS SPRAY

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

For airless spray application, tip size must not exceed .011".

Air Assisted Airless Spray

Manufacturer Graco
 Pump Senator 12:1
 Spray Gun 217292
 Tip Size .023 - .029
 Fluid Hose 3/8" X 50' Max.

CLEAN UP THINNERS

68083 or MEK



DRY TIMES

Cure Time At Recommended Thickness of 2.0 - 2.5 @ 77°F (25°C), 50% RH

	Without Accelerator	With 2 oz. VG-805
Dry to Touch	4 – 6	1
Dry to Recoat	10 – 12	1.5
Dry To Handle	10 – 12	2.5
Pack/Ship	24	5-6
Full Cure	7 days	5 Days
Pot Life	1.5 – 2	3

- Dry times can be improved by adding VG-805 Accelerator up to 2 oz./activated gallon
- May be recoated by spray when tack-free.
- For best results when applying Imron 3.5 HG-C over itself or over other Imron product, the clear should be applied within 72 hours @ 70°F. If more than 72 hours has elapsed, the surface should be scuffed with very fine (400-600 grit) sand paper before applying the Imron 3.5 HG-C.
- If accelerators have been used, recoating must be done within 48 hours. If more time has elapsed, scuff sand to ensure adhesion.



PHYSICAL PROPERTIES

Maximum Service Temperature:	250°F (93°C) in continuous service 300°F (148°C) in intermittent heat Some yellowing of light colors may occur at elevated temperatures
Gloss (ASTM D 523)	High Gloss >90 @ 60° angle. May be mixed with Imron 3.4 FT-C to produce semi-gloss or satin clear.
Weight Solids:	59% ± 2%
Weight per gallon:	8.3 lbs. (3.7 kg) ± 0.1 average
Flash Point-Tag Closed Cup:	Between 70 to 100°F (23 to 38°C) Enamel Between 20 to 73°F (-7 to 23°C) Activator
Volume Solids:	52% ± 2%
Shipping Weight:	Enamel: 1 gallon container – 8 5 gallon container – 27 Activator: 1 quart container – 3 1 gallon container – 9
Shelf Life:	1 year minimum
Theoretical Coverage Per Gallon:	834 ft ² (20.5m ² /L) @ 1 mil DFT 417 ft ² (10.2m ² /L) @ suggested 2 mils DFT Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.
Suggested Film Builds:	3 – 4 mils (75 – 100 µm) wet (WFT) 1.5 – 2 mils (37 – 50 µm) dry (DFT)

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 -30°F (-34°C) and 120°F (48°C).

VOC INFORMATION

THEORETICAL VOC (LESS WATER AND EXEMPT COMPOUNDS)

Mixed VOC, no reduction	3.4 lbs./gal. (408 g/l)
Mixed VOC, 3% reduction w/ 68083 or 2 oz. VG-805 Accelerator	3.6 lbs./gal. (432 g/l)

ASTM INFORMATION

Performance properties are for a system of Corlar 2.1 ST, Imron 2.8 HG and Imron 3.5 HG-C with total dry film thickness 10 mils DFT. For other system recommendations, please contact Axalta.

TEST

TEST	RESULTS
Abrasion (ASTM D-4060) weight loss in grams	0.04
Salt fog (ASTM B-117)	No rusting, no blistering
	No rusting, no blistering
	No rusting, no blistering, no undercutting at the scribe
Humidity Resistance (ASTM D2247)	No rusting, no blistering
	No rusting, no blistering
	No rusting, no blistering
Adhesion (ASTM D4541)	Cohesive failure within the primer
Dry Heat (ASTM D2485)	No cracking, no loss of adhesion, no discoloration
Electrical Resistance (ASTM D2457)	4.2 X 10 ¹⁴
Cle Cond (ASTM D4585)	No rusting, no blistering

UVA 340 Con (ASTM D4587)*	3000 hours	Gloss before exposure: 92.4 Gloss after exposure: 90.2
	Evaluation	No rusting, no blistering, no delamination
Impact (ASTM D2794)	4 inch pounds	
Mandrel Bend (ASTM D522)	% elongation	3%

*8 hrs UV @ 50°C, 4 hrs condensation @ 40° C, gloss readings @ 60°

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.

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