

Imron® 3.4 HG-C High Gloss Polyurethane Clear



GENERAL

DESCRIPTION

A high gloss, two-package, 3.4 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:

- 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 by brush and roller, in addition to spraying, may be necessary
- Application may be made at temperatures as low as 35°F

NOT RECOMMENDED FOR:

- Immersion service or floors

COMPATIBILITY WITH OTHER COATINGS

- Imron 3.4 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 3.4 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

610P Clear

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



MIXING

COMPONENTS

| | |
|-----------------------|---------------------------------------|
| Imron 3.4 HG-C (610P) | 1 gallon container 75% fill (96 oz.) |
| | 5 gallon container 60% fill (384 oz.) |
| VG-610 Activator | 1 quart container 100% fill (32 oz.) |
| | 1 gallon container 100% fill (128 oz) |

MIX RATIO

| Component | Part by Vol. |
|-----------------------|--------------|
| Imron 3.4 HG-C (610P) | 3 |
| VG-610 Activator | 1 |

ACTIVATION

Thoroughly mix 3 parts Imron 3.4 HG-C (610P) Enamel, then add 1 part Imron VG-610 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.

APPLICATION THINNERS

Spray, Brush or Roll: 68083 or Y32401

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 VG-805 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.

APPLICATION EQUIPMENT

Apply by spray, brush or roll. Air spray application is preferred method for finest finish.

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

Roll

- Wooster® Pro/Doo-Z®, ¼" – ½" nap
Add 1 oz. /gallon Axalta RT002P Rolling Additive to eliminate bubbles. Craters may develop if you exceed 2 oz. /gallon.
- Add 3% Axalta Y-32401™ thinner to maintain wet edge.

- May be cross-rolled.
- For best results, allow 5 minutes mix time after adding RT002P.

Brush

Manufacturer: Wooster China Bristle

- Add up to 3% Axalta Y-32401 Thinner to maintain wet edge. Do not cross brush to reduce lap marks. Add up to 1 oz./gallon Axalta RT002P Rolling Thinner to eliminate bubbles.
- For best results, allow 5 minutes mix time after adding Axalta RT002P
- Do not use Axalta RT002P in spray applications.

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

| | | Tip | Cap |
|---------|-----------------------------|-------------|------------|
| Graco | AA4000 HVLP | .021 - .027 | AA10HP |
| | Alpha or Alpha Plus | .015 - .021 | |
| Sata | Shark 32:1 or Dolphin 14:1 | .011-.018 | |
| | K3 spray mix | | |
| Iwata | MSG 2000 Gun, MSU11 13:1 or | | |
| | MSU32 17:1 | .011 - .018 | |
| Kremlin | Airmix MVX | .011 - .020 | |
| Binks | AA 1500 | .013 - .019 | |

CLEAN UP THINNERS

Y-32035™ 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 3.4 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 3.4 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 1.8 FT-C to produce semi-gloss or satin clear. |
| Weight Solids: | 58% ± 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 556 ft ² (13.6m ² /L) @ suggested 1.5 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 3.4 HG-C with total dry film thickness 10 mils DFT. For other system recommendations, please contact Axalta.

| TEST | | RESULTS |
|---|---------------------|--|
| Abrasion (ASTM D-4060) weight loss in grams | | 0.04 |
| Salt fog (ASTM B-117) | 1000 hours | No rusting, no blistering |
| | 2000 hours | No rusting, no blistering |
| | 3000 hours | No rusting, no blistering, no undercutting at the scribe |
| Humidity Resistance (ASTM D2247) | 1000 hours | No rusting, no blistering |
| | 2000 hours | No rusting, no blistering |
| | 3000 hours | No rusting, no blistering |
| Adhesion (ASTM D4541) | 1490 psi | Cohesive failure within the primer |
| Dry Heat (ASTM D2485) | 250° F for 24 hours | No cracking, no loss of adhesion, no discoloration |
| Electrical Resistance (ASTM D2457) | | 1.0 X 10 ¹³ |
| Cle Cond (ASTM D4585) | 1000 hours | No rusting, no blistering |
| UVA 340 Con (ASTM D4587)* | 3000 hours | Gloss before exposure: 93 Gloss after exposure: 83.4 |
| | Evaluation | No rusting, no blistering, no delamination |
| Impact (ASTM D2794) | 4 inch pounds | |
| Mandrel Bend (ASTM D522) | % elongation | 2.5% |

*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.

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.

Revised: January 2015

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