

Imron® 1.8 FT-C Flat Waterborne Polyurethane Clearcoat



GENERAL

DESCRIPTION

A flat gloss, isocyanate-free, single component, 1.8 lbs/gal VOC conforming, zero HAPs coating based on unique Axalta waterborne polyurethane copolymer technology. The resulting coating is designed to be highly durable and to establish a new standard of performance for waterborne coatings delivering very good chemical and corrosion resistance.

SUGGESTED USES

As a flat 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 dull, faded finishes without gloss avoids the cost of complete re-painting
- 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 retention without gloss is desired

COMPATIBILITY WITH OTHER COATINGS

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

NOT RECOMMENDED FOR

- Immersion Service
- Direct to metal applications

COLOR

FTC-01 Clear

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



MIXING

COMPONENTS

Imron 1.8 FT-C (FTC-01) Clearcoat

1 gallon container 100% fill (128 oz.)

5 gallon container 100% fill (640 oz.)

ACTIVATION

None required.

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 1.8 FT-C with low (100-200) rpm's until smooth and uniform.
- Filter paint using nylon or cotton filters before filing spray equipment. Do not use polyester filters.

ADDITIVES & APPLICATION THINNERS

Water

INDUCTION TIME

None

POT LIFE

See comments in Cleanup Thinners section.



APPLICATION

SURFACE PREPARATION

For best results apply Imron 1.8 FT-C (FTC-01) over Imron 1.5 ST-D or Imron 1.5 PR or other Axalta industrial coating. 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 or Imron 1.8 FT-C

APPLICATION CONDITIONS

This product is best applied by spray. Do not apply if the application surface 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. 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.

APPLICATION EQUIPMENT

Apply by spray for best results. Imron 1.8 FT-C (FTC-01) 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.

ROLL APPLICATION

Wooster® Pro/Doo-Z®, ¼" – ½" nap

BRUSH APPLICATION

Wooster Nylon Bristle

SPRAY APPLICATION

Conventional Pressure Fed Liquid		Tip Size
Sata	K3 RP or LM 3000 RP	1.0-1.3mm
Devilbiss	JGA, MBC, or FLG	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.

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	
Binks	AA 1500	.013 - .019	
Kremlin	Airmix MVX	.011 - .020	

Fluid lines > 1/4" ID are recommended for lengths up to 25', 3/8" ID or larger are required for proper fluid delivery at lengths longer than 25'.

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
Sata	Airless 250 II	Airless Tip Size .013 - .017	Orca 32:1 pump

CLEAN UP THINNERS

Imron 1.8 FT-C 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 TY-3826™ Thinner.



DRY TIMES

Cure Time in Hours at Recommended Thickness 77°F (25°C) and 50% RH

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.



PHYSICAL PROPERTIES

Maximum Service Temperature	250°F (93°C)
Volume Solids	33% ± 1%
Weight Solids	36% ± 1%
Theoretical Coverage Per Gallon	529 ft² (12.96 m²/l) @ 1 mil DFT 176 ft² (4.71 m²/l) @ suggested DFT of 3 mil
Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.	
Weight Per Gallon	9.75 lbs. (4.42 kg)

Packaging Clear	1 gallon (100% fill)
Activator	5 gallon (100% fill)
Shipping Weight (approximate)	
Clear	1 gallon: 11 lbs.
	5 gallon: 52 lbs.
Suggested Film Thickness:	5-7 mils (125-175 µm) wet
	2-3 mils (50-75 µm) dry
	Film builds below 3 mils DFT will not provide maximum film properties
	Application by brush and roller may require additional coats to achieve recommended films thickness.
Flash Point:	>200°F (93°C)
Gloss (ASTM D523):	Flat 10 @ 60° angle.
	May be mixed with Imron 1.2 HG-C to produce semi-gloss or satin clear.
Shelf Life:	12 months minimum

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.

VOC REGULATIONS

VOC (Theoretical less water and exempt compounds) 1.8 lbs./gal. (215.6 g/l)

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

ASTM INFORMATION

Performance properties are for a system of Imron 1.5 PR and Imron 1.8 FT-C with total dry film thickness 4-6 mils DFT. For other system recommendations, please contact Axalta.

TEST	RESULTS	
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)	

SELECT CHEMICAL RESISTANCE

The following are chemical resistance (ASTM D-1308) 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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