



# Imron® 2.1 + Reduced Gloss Polyurethane Topcoat (QM, QA, QF Quality)



## GENERAL

### DESCRIPTION

A high solids aliphatic polyurethane enamel available in multiple gloss levels. It may be applied by brush, roll or spray application. This two-component, VOC conforming (2.1 lbs/gal) product is based upon unique Axalta formulation technology designed to produce properties of both polyester and acrylic polyurethanes and to deliver high performance.

### SUGGESTED USES

As a high performance, tough, industrial polyurethane topcoat over properly prepared and primed steel, galvanized steel, stainless steel, aluminum, concrete, concrete block or wood where:

- Outstanding long term reduced gloss and color retention are desired
- Excellent resistance to chemicals is required
- Use in corrosive or industrial marine environments is needed
- Outstanding abrasion resistance and flexibility are required
- Application by brush and roller, in addition to spraying, may be necessary
- Application can be made at temperatures as low as 35°F
- Compliance with 2.1 lbs VOC regulations is required

### COMPATIBILITY WITH OTHER COATINGS

- Imron 2.1 + reduced gloss qualities QM, QA & QF can be applied over other Axalta coatings including, but not limited to Imron Industrial Strength primers, other Imron primers, Imron Waterborne Polyurethane Copolymer coatings, Corlar® epoxies, Tufcote® acrylics, and Tufcote alkyd primers.
- Imron 2.1 + reduced gloss qualities QM, QA & QF 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 or floors

### PERFORMANCE PROPERTIES

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

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

### COLOR

Imron 2.1 + reduced gloss topcoats is a mixing system consisting of a binder, 2100P™, 19 tints and a mix quality color formula. Thousands of custom colors can be mixed in reduced gloss qualities semi gloss (QM), satin (QA) and flat (QF). Mix formulas are available in ColorNet®, and Acquire RX™ Systems.

Imron 2.1 + reduced gloss qualities are available as mixes only. All reduced gloss versions use 9T20™ Flattening Agent and must have an appropriately balanced color mix formula.



## MIXING

### COMPONENTS

Imron 2.1 SG™ + Semi Gloss (“QM” mix quality)  
Imron 2.1 ST™ + Satin Gloss (“QA” mix quality)  
Imron 2.1 FT™ + Flat (“QF” mix quality)  
2100P Color Mix Binder  
9T00-A™ Activator  
9T20 Flattening Agent

Mixing formulas available in ColorNet  
Mixing formulas available in ColorNet  
Mixing formulas available in ColorNet  
1 gallon containers 100% full (128 oz.)  
quart container 80% full (25.6 oz.)  
1 gallon container 100% full (128 oz.)

### MIX RATIO

Component	Part by Vol.
Imron 2.1 + Reduced Gloss mix base	6
Imron 9T00-A Activator	1

### ACTIVATION

To 6 parts Imron 2.1 + reduced gloss color mix formula, add one part Imron 9T00-A Activator. If using a mix formula, follow specific color formula for color desired. Measure out appropriate mounts, add activator and mix thoroughly. Use Y-32401™, 9M01™ or 9M02™ reducers as outlined in reduction section. Mix until uniform.

### MIXING AND REDUCTION

Mix thoroughly using a mechanically powered sheer “Jiffy” mixer with variable RPM settings; use medium speed RPM. Move mixer up and down through paint for uniform mixing.

#### Agitate mixed color soon after weighing.

For spray use: Normally 0-2% Y-32401 and up to 8% Imron 9M01 (10% max), or 8-10% 9M01 can be used for spray application less than 85°F. For applications greater than 85°F, use 5% max Imron 9M02 and 5% max Imron 9M01. Y-32401 2% max can be used in place of 9M02.

For brush & roll use: Normally 0-2% Y-32401 and up to 8% Imron 9M01 (10% max), or 8-10% 9M01 can be used for brush and roll application less than 85°F. For applications greater than 85°F, use 5% max Imron 9M02 and 5% max Imron 9M01. Y-32401 2% max can be used in place of 9M02. In addition, when rolling only, use 1 oz per mixed gallon of Imron 9M05 Rolling Additive to help eliminate bubbles. After addition of 9M05 Rolling Additive, allow 5 minutes induction before applying. If faster re-coats are required, use VG-805™ Accelerator, 1 oz per mixed gallon.

#### DO NOT USE Lacquer thinners for reduction. Use only recommended reduction solvents.

### APPLICATION THINNERS

Spray, Brush and Roll – Below 85°F    Y-32401, 9M01  
Spray, Brush and Roll – Above 85°F    Y-32401, 9M02  
Rolling Additive - Imron 9M05

### INDUCTION TIME

None unless 9M05 Rolling Additive is used, then 5 minute induction before applying.

### POT LIFE

2 hours @ 77°F and 50% RH. Higher temperatures or the addition of Imron VG-805 Accelerator may shorten pot life.



## APPLICATION

### 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 CONDITIONS

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 application temperatures below 45°F, the use of Imron VG-805 is recommended. Relative Humidity should be below 90%.

### APPLICATION EQUIPMENT

- Apply by spray, brush or roll
- Manufacturers listed below are a guide. Others may be used. Changes in pressure and tip size may be required to achieve proper application.

### ROLL

Manufacturer: Wooster® Pro/Doo-Z™ ¼" – ½" nap

- Add 1 oz./gallon Imron 9M05 Rolling Additive to eliminate bubbles. Craters may develop if you exceed 1 oz./gallon.
- Normally 0-2% Y-32401™ and up to 8% Imron® 9M01, (10% max) or 8-10% 9M01 can be used for roll application less than 85° F. For applications greater than 85°F, use 5% max Imron 9M02 and 5% max Imron 9M01. Y-32401 2% max can be used in place of 9M02.
- Material should be cross-rolled.
- For best results, allow 5 minutes mix time after adding 9M05.

### BRUSH

Manufacturer: Wooster® China Bristle

- Normally 0-2% Y-32401 and up to 8% Imron 9M01, (10% max) or 8-10% 9M01 can be used for brush application less than 85° F. For applications greater than 85° F, use 5% max Imron 9M02 and 5% max Imron 9M01.
- Y-32401 2% max can be used in place of 9M02.
- Do not use 9M05 in spray applications.

### CONVENTIONAL SPRAY

- May be recoated by spray when tack-free.
- Imron 9M05 Rolling Additive is not recommended for spray application.

Manufacturer	Model	Tip Size
Sata	K3 or 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	1.2-1.4mm
Binks	2001 or 95	1.2-1.3mm

### HVLP SPRAY

Manufacturer	Model	Tip Size
Sata	3000RP HVLP	1.0-1.3mm
Devilbiss	JGVH, EXL, or FLG	1.1-1.4mm
Graco	DeltaSpray XT - HVLP	1.1-1.5mm
Iwata	LPH 200 L VLP	1.2-1.4mm
Binks	Mach 1 & 1SL	1.2-1.4mm
	SV100 HVLP	1.2-1.4mm



**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

- Fluid lines > ¼" ID are recommended for lengths up to 25', 3/8" ID or larger are required for proper fluid delivery at lengths longer than 25'.
- Minimum pressure: 2500-4500 psi.
- Filter 60 Mesh

**Air Assisted Airless Spray**

Graco	AA4000 HVLP	<b>Tip</b> .021 - .027	<b>Cap</b> AA10HP
	Alpha or Alpha Plus	.015 - .021	
Iwata	MSG 200 or 2000	Adjustable tip	
Binks	AA 1500	.013 - .019	

**Electrostatic**

Graco	PRO Xs3 or XS4 Electrostatic Gun
Nordson	Kinetix Systems AA, KVLP, & Conventional
Ransburg	REA 90 or AA90

**Orifice Size in Inches (mm)**

.031 (0.8)	.042 (1.0)	.043 (1.1)	.051 (1.3)
.055 (1.4)	.067 (1.7)	.070 (1.8)	.080 (2.0)

**CLEAN UP THINNERS**

Imron T-1021, Acetone or MEK



**DRY TIMES**

Cure Time At Recommended Thickness 1.5 - 2 mils

	77°F (25°C) and 50% RH		90°F (32°C) and <25% RH	
	2% Y-32401 <u>Without VG-805</u>	2% Y-32401 <u>With 1 oz. VG-805</u>	5% 9M02 <u>Without VG-805</u>	5% 9M02 <u>With 1 oz. VG-805</u>
Dry to Touch	3 hrs	1.5 hrs	2.5 hrs	1.5 hr
To Handle	7 hrs	4.5 hrs	7 hrs	4.5 hrs
To Recoat	5 hrs	3 hrs	5 hrs	3 hrs
Pot Life	2 hrs	1 hrs	2 hrs	1.5 hrs
Full Cure	7 days	6 days	6 days	5 days

Dry times can be improved by adding up to 1 oz. of VG-805 Accelerator per activated gallon.

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.
Volume Solids	47% ± 2%
Weight Solids	52% ± 2%
Theoretical Coverage Per Gallon	754 ft <sup>2</sup> (18.4 m <sup>2</sup> /l) @ 1 mil dft 376 ft <sup>2</sup> (9.2 m <sup>2</sup> /l) @ 2 mil dft
	Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements
Weight Per Gallon	8 – 11 lbs - average varies with color



Shipping Weight (approximate)		11 lbs
1 gallon container:		
Activator:	quart:	2-3 lbs      gallon: 12 lbs
Suggested Film Thickness		3 - 4 mils (75-100 µm) wet
		1.5 – 2 mils (37 – 50 µm) dry
	Application by brush and roller may require additional coats to achieve recommended films thickness.	
Flash Point		Between 20° to 73° F (-6° to 23° C)
Gloss		
	Imron 2.1 SG + Semi Gloss	50 - 65 measured @ 60° angle
	Imron 2.1 ST + Satin Gloss	25 - 45 measured @ 60° angle
	Imron 2.1 FT + Flat	0 - 10 measured @ 60° angle
	Note: Imron 2.1 + reduced gloss formulas use 9T20 Flattener. Please also note that the mix ratio for reduced gloss qualities of Imron 2.1 +, changes from 3 to 1 with QH, High Gloss quality, to 6 to 1 with all reduced gloss qualities.	
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).

Imron 2.1 + reduced gloss may settle. Best used upon mixing color. Shake before each use and periodically for less frequently used colors. Mix 9T20 Flattener frequently. Please consult MSDS for both products for proper protective equipment and safety and health information.

**VOC REGULATIONS**

VOC (Theoretical less water and exempt compounds).

Compliant at 2.1 lbs/gal VOC

	Normal			Hot		
	Less than 85°F	VOC lbs/gal	VOC TBAc Exempt	Higher than 85°F	VOC lbs/gal	VOC TBAc Exempt
+ Y-32401	2%	2.01	1.72	2%	2.01	1.72
+ 9M01	5%	2.01	1.73	5%	2.01	1.73
+ VG-805	1 oz /mixed gal	2.07	1.78	1 oz /mixed gal	2.07	1.79
+ 9M05	1 oz /mixed gal	2.08	1.80	1 oz / mixed gal	2.08	1.80
+ 9M02	--	--	--	Or instead of Y-32401 5%	1.99	1.71

This product contains T-Butyl Acetate (TBAc).

**HAPS INFORMATION – THEORETICAL**

	Normal		Hot	
	Less than 85°F	VOC lbs/gal	Higher than 85°F	VOC lbs/gal
+ Y-32401	2%	0.4	2%	0.4
+ 9M01	5%	0.4	5%	0.4
+ VG-805	1 oz /mixed gal	0.4	1 oz /mixed gal	0.4
+ 9M05	1 oz /mixed gal	0.4	1 oz / mixed gal	0.4
+ 9M02	--	--	Or instead of Y-32401 --	0.1

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.



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## **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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