



Imron® MS1™ Polyurethane Clearcoat



GENERAL

DESCRIPTION

A polyurethane clear coating designed to deliver excellent appearance, durability, and robust application. Imron MS1 is formulated to provide balanced performance including smooth appearance, resistance to sag, and productive dry times. This high-solids clearcoat has a ready-to-spray VOC of less than 3.5 lbs/gal.

RECOMMENDED USES

- Imron MS1 is part of the Imron MS100™ Basecoat/Clearcoat system. Refer to the Imron MS100 Product Data Sheet.
- Imron MS1 is recommended for use with Imron MS600™ topcoats to improve the appearance of dark colors or metallics.
- It is also recommended for topcoating properly prepared exterior wood surfaces to enhance appearance and durability.
- It can also be used in place of 13325S™ for finishing interior wood systems when a slower clear is desired.

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



MIXING

COMPONENTS

Imron MS1 Polyurethane Clearcoat
18100S™ Urethane Activator
Imron 187X5S Reducers
 Imron 18765S™ Low Temperature Reducer (<70° F)
 Imron 18775S™ Medium Temperature Reducer (70°- 85°F)
 Imron 18785S™ High Temperature Reducer (>85° F)
Imron 18900S™ Performance Enhancer

See Imron MS600 product data sheet for topcoat information.
See Imron MS100 product data sheet for basecoat information.

MIX RATIO

Thoroughly mix Imron MS1 color prior to activation. Filter activated material prior to spray application.

Standard Three Component System	Parts by Volume
Imron MS1 clear	2
Imron 18100S Basecoat Activator	1
Imron 187x5S Basecoat Reducer (optional)	1

Performance Enhancer System	Parts by Volume
Imron MS1 clear	3
18100S Urethane Activator	1
Imron 18900S™ Performance Enhancer	0.5



VISCOSITY

Viscosity will be 10 - 13 seconds in a Zahn #3 cup unreduced.

INDUCTION TIME

No induction time is required prior to application.

POT LIFE

Pot life is 2 hours at 70°F (21°C) unreduced

Pot life is 4 hrs with 2:1:1 activation / reduction at 70°F (21°C)

ADDITIVES

Accelerators

- Up to 2 oz per RTS gallon of 13801S™, 13803S™, or 13805S™

Anti-Crater

- Up to 1 oz per RTS gallon of 13813S
- Do not use FEE

Performance Enhancer

- Imron™ 18900S Performance Enhancer can be added to maximize appearance and cross-coat application of MS1. Refer to mix ratio information for recommendations.



APPLICATION

SUBSTRATES AND SURFACE PREPARATION

Surface preparation is critical to topcoat appearance. Follow topcoat recoat-window guidelines to ensure proper adhesion. Substrate should always be thoroughly wiped/tacked immediately prior to Clearcoat application except for wet on wet application.

ENVIRONMENTAL CONDITIONS

Substrate and ambient temperature must be between 50°F (10°C) and 110°F (43°C).

The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%.

For optimum appearance, spray Imron MS1 at 75°F (24°C) or warmer.

Heating activated paint above 110°F (43°C) may cause gelation.

GUN SETUP

Imron MS1 can be applied with conventional, HVLP, air-assisted airless, and electrostatic spray equipment using pressure or gravity fluid delivery.

Conventional

Pressure Pot
Gravity Feed

Fluid Tip

1.0 mm – 1.4 mm (.039" - .055")
1.2 mm – 1.6 mm (.047" - .063")

HVLP

Pressure Pot
Gravity Feed

1.0 mm – 1.4 mm (.039" - .055")
1.2 mm – 1.6 mm (.047" - .063")

FLUID DELIVERY

Conventional
HVLP

8-10 oz./minute
8-10 oz./minute

AIR PRESSURE

Conventional
HVLP

50-60 psi atomizing air
25-30 psi atomizing air



APPLICATION

For Imron MS600 Topcoat

Imron MS1 Clearcoat may be applied over Imron MS600 Topcoat after a 1-2 hour flash for solid colors, 2-3 hrs for metallics. For optimum appearance, allow topcoat to air dry 16 hours, sand with 400 grit paper finishing with 800 grit or smaller, clean and tack the surface. Sanding of the topcoat may affect color, test prior to finishing. Apply Imron MS1 using a crosscoat technique. Spray a wet first coat using a top-to-bottom motion. Spray a medium-wet second coat using a side-to-side motion to achieve 1.5 – 2.0 mils dry film build. Allow 30 minute flash times between coats. Allow clearcoat to cure a minimum of 72 hours prior to placing boat into limited service. Full cure is obtained in 2 weeks.

For Imron MS100 Basecoat

Imron MS1 Clearcoat may be applied wet on wet over Imron MS100 Basecoat after a 10 - 40 minute flash. Spray 2 coats with a 30 minute flash between coats to achieve 1.8 to 2.2 mils dry film thickness (4 mils wet). Cure recommendations are the same as above. Refer to the Imron MS100 product data sheets.

For Performance Enhancer

Apply 1 medium coat at a gun distance of 6” inches from the surface with an even 50% overlap to achieve 100% opacity (color hiding), followed immediately with one medium coat at a gun distance of 8-10” inches from the surface. Apply all coats wet-on-wet. Do not flash between coats.

Brushing

Imron MS1 Clearcoat may be brushed when activated/reduced 4:1:1 with 18101S™ Brush & Roll Activator and 18701S™ Brush & Roll Reducer. Allow 30 - 45 minutes between coats.

Exterior Wood

Spray 2-3 coats over properly prepared exterior wood, allowing 30 - 45 minutes between coats.

CLEANUP SOLVENTS

Axalta 107™ Low VOC Gun & Equipment Cleaner
 Axalta 105™ Gun & Equipment Cleaner



DRY TIMES

	<u>Force Dry at 130°F (54°C)</u>	<u>Air Dry at 70°F (21°C)</u>
Flash Before Force Dry	none	required
Dry to Touch	2 hours	4 hours
Dry to Tape	4 hours	8 hours

RECOAT

When recoating Imron MS1 with itself, scuff sanding is required if the clearcoat has air dried for more than 16 hours or has been forced dried.



PHYSICAL PROPERTIES

VOC	<u>Less Exempts (LE)</u>	<u>As Packaged (AP)</u>
Imron MS1	3.8 lbs/gal	3.6 lbs/gal
Imron MS1 Mixed 2:1 (Unreduced)	3.3 lbs/gal	3.2 lbs/gal
Ready-to-Spray Imron MS1 2:1:1	3.6 lbs/gal	2.8 lbs/gal

FACTORY PACKAGED CLEARCOAT



IMRON™

Color	clear
Closed Cup Flash Point	20°F - 73°F
Shelf Life	2 years (Unopened at 50°-110°F)

READY-TO-SPRAY

	<u>Unreduced</u>	<u>Reduced 2:1:1</u>
Theoretical Coverage (at 1 mil dry film thickness)	839 ft ² /gal	630 ft ² /gal
Weight Solids	59 %	44 %
Volume Solids	52 %	39 %
Gallon Weight	8.35 lbs/gal	8.39 lbs/gal

DRY FILM

Gloss	≥90 measured at 60°
Recommended Film Thickness	1.5 – 2.0 mils

COATING PERFORMANCE

Chemical and Solvent Resistance	Excellent
Red Diesel Staining Resistance	Very good
Weatherability	Excellent
Humidity Resistance	Excellent
Acid and Alkali Resistance	Excellent
Abrasion Resistance	Excellent
Flexibility	Excellent

VOC REGULATED AREAS

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.

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. Do not allow material or overspray to enter drains or waterways.

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