Imron® MS1™
Polyurethane Clearcoat

Type
Imron® MS1™ is a high-performance polyurethane clearcoat.

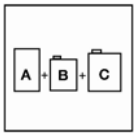
Description
Imron® MS1™ is a clear polyurethane coating designed to deliver excellent appearance, durability, and robust application. Imron® MS1™ is formulated to provide balanced performance including smooth appearance, resistance to sag, and productive dry times. This high-solids clearcoat has a ready-to-spray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

Recommended Uses
Imron® MS1™ is recommended for use with Marine 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 DuPont™18321S™ for finishing interior wood systems when a slower clear is desired.

General Information for Use

Components
Imron® MS1™ Polyurethane Clearcoat
DuPont™ 18100S™ Urethane Activator

See Imron® MS600™ product data sheet for topcoat information.



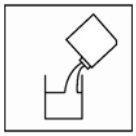
Mix Ratio
Thoroughly mix Imron® MS1™ prior to activation. Filter activated material prior to spray application.

Two Component System	*Parts by Volume*
Imron® MS1™ Polyurethane Clearcoat	3
DuPont ™ 18100S™ Urethane Activator	1
DuPont™ 18775S™ Reducer	1 (Optional)

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

Pot Life and Induction Time

Pot life is 2 hours at 70°F (21°C)
Pot life is 4 hrs with 3:1:1 activation : reduction
No induction time is required prior to application.



Additives

Accelerator	DuPont™ 189S™ for improved pot life/dry (up to 2 oz per ready-to-spray gallon) DuPont ™ 18820S™ for improved dry time (up to 2 oz per ready-to-spray gallon)
Anti-Crater	DuPont™ 18801S™ (up to 1 oz per ready-to-spray gallon) DuPont™ 18802S™ (up to 1 oz per ready-to-spray gallon) Do not use FEE

Guidelines for Use

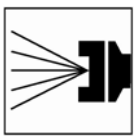
Substrates and Surface Preparation

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.

Gun Setup

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

	Fluid Tip
Conventional	
Pressure Pot	1.0 mm – 1.4 mm (.039” - .055”)
Siphon Feed	1.0 mm – 1.4 mm (.039” - .055”)
Gravity Feed	1.2 mm – 1.6 mm (.047” - .063”)
HVLP	
Pressure Pot	1.0 mm – 1.4 mm (.039” - .055”)
Siphon Feed	1.0 mm – 1.4 mm (.039” - .055”)
Gravity Feed	1.2 mm – 1.6 mm (.047” - .063”)

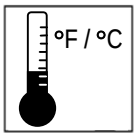


Fluid Delivery

Conventional	8 - 10 ozs/min
HVLP	8 - 10 ozs/min

Air Pressure

Conventional	50 – 60 psi atomizing air
HVLP	25 – 30 psi atomizing air



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

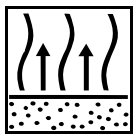
For optimum appearance, spray Imron® MS1™ at 75°F (24°C) or warmer.

Application

Imron® MS1™ Clearcoat may be applied over Imron® MS600™ Topcoat after a one to two 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 effect color, test prior to finishing. Apply Imron® MS1™ using a cross-coat 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.

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

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



Dry Times

Force Dry at 130°F (54°C)	
Flash Before Force Dry	none required
Dry to Touch	2 hours
Dry to Tape	4 hours
Air Dry at 70°F (21°C)	
Dry to Touch	4 hours
Dry to Tape	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.

Cleanup Solvents

DuPont™ 3642S™ Thinner or Nason® 481-16 Thinner

Physical Properties

VOC	*Less Exempts (LE)*	*As Packaged (AP)*
Imron® MS1™	3.8 lbs/gal	3.6 lbs/gal
Ready-to-Spray Imron® MS1™ (Unreduced)	3.4 lbs/gal	3.3 lbs/gal
Ready-to-Spray Imron® MS1™ 3:1:1	3.6 lbs/gal	2.9 lbs/gal

Factory-Packaged Clearcoat	
Color	Clear
Closed Cup Flash Point	20°F – 73°F

Ready-to-Spray	Unreduced	Reduced 3:1:1
Theoretical Coverage(at 1 mil dry film thickness)	805 ft^2/gal	648 ft^2/gal
Weight Solids	57%	46%
Volume Solids	50%	40%
Gallon Weight	8.3 lbs/gal	8.3 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.

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 approved ventilation, and gloves.

Do not allow material or overspray to enter drains or waterways

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