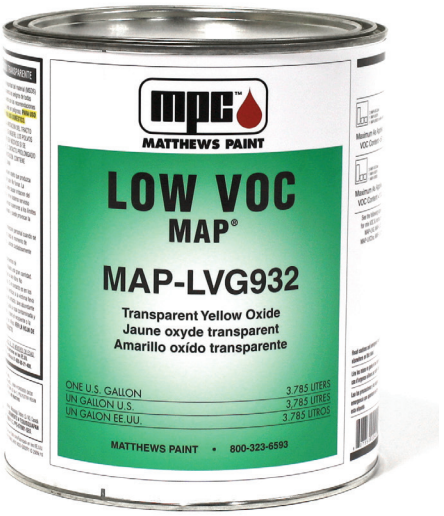
MPC187

Acrylic Polyurethane Ultra Low VOC

MAP-LV



MAP-LV (Matthews Acrylic Polyurethane Ultra Low VOC) is designed to meet the most stringent VOC regulations while retaining the color range of our conventional product. In addition, this flexible high-solids, chemically cross-linked coating offers exceptional outdoor durability, UV and chemical resistance, and great impact, mar and abrasion resistance. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings. MAP-LV is formulated to deliver less than 50g/L VOC in standard solid color applications. The use of metallics and/or special reducers will increase the VOC level slightly.

Features:	Benefits:
• Ultra low VOC (< 50g/L at use)	• Excellent color and gloss retention
• Durable yet flexible film	• Great impact, mar and abrasion resistance
• Air dry or force-dry capable	• Excellent chemical resistance
• Exceptional UV resistance	
• Gloss and satin finishes	
• Brush and roll capability (without additional additive requirement)	

Compatible Surfaces

- Steel
- Aluminum
- Wood
- Masonry
- Fiberglass
- Expanded PVC
- Brass, Bronze and Copper
- Photopolymer
- Acrylic
- Previously painted surfaces (with proper prep)

Associated Products:

- MAP-LVRS01 Spray Reducer
- MAP-LVRS02 Extended Pot Life Spray Reducer
- MAP-LVRS03 Hot Temperature Spray Reducer 80° & Above
- MAP-LVRB51 Brush and Roll Reducer
- MAP-LVU100 White Epoxy Primer
- MAP-LVU200 Tintable Primer
- Any MPC Primer
- MAP-LVA117 Accelerator (optional)
- MAP-LVX270 Catalyst
- MAP-LV Clearcoats

MAP-LV

Directions for Use

Surface Preparation:

Substrate should be prepared according to undercoat instructions prior to topcoat application.

Mix Ratio:

MAP-LV Solid or Clear	LVX270	MAP-LVRB51, LVRS01, LVRS02 or LVRS03	with MAP-LVA117
3 parts	1 part	1 part	
3 parts	1 part	1 part	4oz/RTS gallon*

- All components should be mixed thoroughly before using
- Strain material after mixing
- Mix no more than can be used within pot-life depending on reducer. Refer to chart on page 3.

Spray Set Up:

Air Pressure:	Conventional:	40 - 50 psi at the gun
	HVLP:	10 psi at the cap
	Pressure Pot:	10 – 12 psi
Gun Set Up:	Siphon feed:	1.3-1.4 mm 0.055 fluid tip
	HVLP:	1.3-1.4 mm 0.055 fluid tip
	Pressure Pot:	1.2 mm 0.046 fluid tip

Application:

Apply:

- Apply 1 full wet coat
- Flash 5 to 10 minutes between coats
- Follow with a second full wet coat
- Recommended Dry Film Thickness: 1.5-2 mils (DFT)

Drying Times:

Air Dry : 50% humidity @ 70°F	Dry time to handle 2 -5 hours without accelerator. Dry time to clearcoat 4 hours. After 24 hours scuff surface before clearcoat.
Force Dry :	30 minutes at 120° F
Full Cure :	10-14 days

Dry Times for Using LVRS02 Reducer and LVA117 Accelerator

Tape Times:	2 hours (Without LVA117—24 hours or more)
Vinyl Application:	2 - 3 mil—8 hours (Without LVA117—48 hours)
Reflective Metallic Vinyl Application:	24 hours (Without LVA117—96 hours or more)

*** Not recommended for use in MAP-LVG product with LVRS01**

Directions for Use

Impact of Mix Ratio on Pot Life, Dry Time and VOC

Mix and Ratio							In Satin Product				In Gloss Product			
MAP-LVG/S/C	MAP-LVX270	MAP-LVRS01	MAP-LVRS02	MAP-LVRS03	MAP-LVA117		Pot Life (hr:min)	Dry to Touch (hr:min)	VOC grams/liter		Pot Life (hr:min)	Dry to Touch (hr:min)	VOC grams/liter	
									Solid	Metallic			Solid	Metallic
3	1	1	0		0		2:30	3:30	<50	<80	0:50	2:30	<50	<80
3	1	1	0		4oz./RTS gl		0:25	0:20	<50	<80	*NR	*NR	*NR	*NR
3	1	0	1		0		>4:00	2:30	<140	<165	>3:00	2:30	<140	<150
3	1	0	1		4oz./RTS gl		2:30	0:20	<130	<165	1:00	0:20	<140	<150
3	1			1	0		>4:00	2:30	<290	<300	>3:00	2:30	<280	<290
3	1			1	4oz./RTS gl		2:30	0:20	<290	<300	1:00	0:20	<280	<290

Pot life is the amount of time before spray viscosity doubles. These are estimates based on lab results at ambient lab temperature and humidity—results will vary based on application conditions. Accelerator may be added up to 4oz per ready-to-spray (RTS) gallon.

* Not recommended

VOC Conversion Equivalents

50 grams/liter = 0.42 lbs/gl	165 grams/liter = 1.38 lbs/gl
80 grams/liter = 0.67 lbs/gl	170 grams/liter = 1.42 lbs/gl
130 grams/liter = 1.08 lbs/gl	280 grams/liter = 2.34 lbs/gl
140 grams/liter = 1.17 lbs/gl	290 grams/liter = 2.42 lbs/gl
150 grams/liter = 1.25 lbs/gl	300 grams/liter = 2.51 lbs/gl

Equipment Cleaning:

Clean equipment promptly with any low VOC all-purpose cleaning solvent. Acetone should be used for cleanup in environmentally regulated areas. **Note: Do not leave mixed material in equipment.**

Technical Data:

Solids by Weight:	LVG 53 – 67% Avg. 57, LVS 49 – 60% Avg. 53
Solids by Volume:	50 – 60 %
Pencil Hardness:	F
MEK Resistance (100 double rubs):	No effect @ 1 Day Air Dry
Impact Resistance:	Forward @ 2 Weeks Air Dry: 150+ in/lbs
	Reverse @ 2 Weeks Air Dry: 150+ in/lbs
1000 Hours Salt Fog*:	Scribe Creep Rating: 9
	Face Blister Rating: 9
	Adhesion Rating: 5A
500 Hours Humidity Resistance:	Blisters: None
	60 Deg Gloss Retention: 99%
QUV "B" (1500 Hours Exposure):	60 Deg Gloss Retention: 92%
	Color Shift: 1.0 Delta E (CIELab)
Chemical Resistance:	10% NaOH: No Effect
	10% HCl: No Effect
	10% H2SO4: No Effect
	Gasoline: Slight Effect
Application Conditions:	60° F (16° C) minimum
	100° F (38° C) maximum
Theoretical Coverage:	(1 mil @ 100% Transfer Efficiency)
	678-812 Sq.Ft. / RTS Gallon

***NOTE:** Results obtained over MAP-LVU100, 50g/L Epoxy Primer

MAP-LV

Acrylic Polyurethane Ultra Low VOC

Directions for Use

Precautions: Caution! Close container after each use. Do not take internally. Keep out of reach of children.

Important:

The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels of all components, since the mixture will have the hazards of all its parts. Improper spray technique may result in a hazardous condition. Follow spray equipment manufacturer's instructions to prevent personal injury or fire. Follow directions for respirator use. Wear eye and skin protection. Observe all applicable precautions.

See Material Safety Data Sheet and Labels for additional safety information and handling instructions.

EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION - US (412) 434-4515; CANADA (514) 645-1320; MEXICO 01-800-00-21-400

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the general public. Products mentioned may be hazardous and should only be used according to directions, while observing precautions and warning statements listed on label. Statements and methods described are based upon the best information and practices known to Matthews Paint. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results, or fitness for any intended use, nor does Matthews Paint warrant freedom from patent infringement in the use of any formula or process set forth herein.
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