Acrylic Polyurethane Ultra Low VOC

MAP-LVG

MAP-LV (Matthews Acrylic Polyurethane Ultra Low VOC) is designed to exceed the most stringent VOC regulations while retaining our full color range. 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:

Durable yet flexible film	Impact and mar resistant
Durable gloss finish	Adds depth and appearance
Air-dry or force-dry capable	Fits most shop conditions
Excellent UV resistance	Excellent color and gloss retention; Extended life cycle; Reduced maintenance costs
2K Acrylic polyurethane	Resistance to weathering; Resistance to chalking, Long-term durability
Ultra low VOC technology	Environmentally friendly; Complies with most stringent VOC requirements; High solids
Brush and roll capability	For use in areas where air spraying is prohibited

Compatible Surfaces:

MAP-LVG Acrylic Polyurethane Ultra Low VOC may be applied over properly prepared:

6001SP/01 Polyester Primer Surfacer
6007SP/01 3.5 Gray Epoxy Primer
274685SP/01 U Prime
274808SP/01 Black Epoxy Primer
274908SP/01 White Epoxy Primer
274528SP/01 2.1 VOC Gray Epoxy Primer
274530SP/01 2.1 VOC White Epoxy Primer
274531SP/01 2.1 VOC Black Epoxy Primer
74350SP/01 3.5 Non-Chromate Primer
74734SP/01 Metal Pretreatment
74760SP/01 PT Filler
74770SP/01 HBPT
74780SP/01 HBEF
74777SP/01 Tie Bond
274777SP/01 Low VOC Tie Bond
274793SP/01 Low VOC Spray Bond
LVU100/01 Ultra Low VOC Epoxy Primer

Associated Products:

Catalyst	Reducer	Accelerator
MAP-LVX270/01*	MAP-LVRS01/01* Cool Temp. Spray Reducer	287437SP/08 HS Accelerator
Catalyst	MAP-LVRS02/01 Warm Temp. Spray Reducer w/ Extender	MAP-LVA117/08 Ultra Low VOC Accelerator
*Also available in /04	MAP-LVRS03/01 Hot Temperature Spray Reducer w/ Extender 80° & Above	47117SP/04 MAP Accelerator
	MAP-LVRB51/01* Brush and Roll Reducer	

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Directions for Use

Surface Preparation:

Substrate should be prepared according to Matthews Substrate Preparation Guide prior to topcoat application.

Mix Ratio:

Mix Ratio for Spraying (by volume)

MAP-LVG	LVX270/01 or /04	LVRS0x*	with Accelerator**
3 parts	1 part	1 part	Up to 1oz/RTS quart

*Choose MAP reducer

- MAP-LVRS01/01 or /04 Cool Temp. Spray Reducer
- MAP-LVRS02/01 Warm Temp. Spray Reducer with Extender
- MAP-LVRS03/01 Hot Temperature Spray Reducer with Extender 80° & Above
- NOTE: Larger jobs may require a hotter temperature reducer.

**Caution: use of accelerator with LVRS01 is Not Recommended as it will drastically shorten pot life.

- For Brushing and Rolling, refer to Technical Data Sheet MPC193.
- All components should be mixed thoroughly before using
- Strain material after mixing

Pot Life: Pot-life is the amount of time before spray viscosity doubles. These are estimates based on lab results at 50% relative humidity, 70°F/21°C—results will vary based on application conditions, reducer selection, and accelerator choice.
Note: mix no more product than can be used within time limits listed below:

Application Method	Reducer	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	MAP-LVRS01/01**	Accelerator is Not Recommended when using MAP-LVRS01/01** reducer		1 hour
	MAP-LVRS02/01 or MAP-LVRS03/01	287437SP/08	1/2 oz	1.5 hours
		MAP-LVA117/08	1/2 oz	1 hour
		47117SP/04	1/2 oz	1 hour
Brush and Roll	LVRB51/01**	Accelerator is Not Recommended when brushing or rolling		1 hour

*Times listed in the chart above are for a full load of accelerator.
**Also available in /04

Additives:

None required, but the following may be used for specific application or project needs:

- 287112SP/04 Medium Suede Additive
- 287113SP/04 Coarse Suede Additive

Spray Set Up:

Air Pressure:
Conventional: 40 - 50 psi at the gun*
HVLP: 10 psi at the cap*
* Refer to spray gun manufacturer recommendations for inlet pressure.

Pressure Pot Fluid Delivery: 8 - 12 Fluid Ounces per Minute

Gun Set Up:
Siphon Feed: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip
HVLP: 1.2 - 1.4 mm 0.047 - 0.055 fluid tip
Pressure Pot: 1.0 - 1.2 mm 0.039 - 0.047 fluid tip

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Directions for Use

Application:

Apply: Apply two full wet coats, allowing proper flash time* between coats. Apply additional coats as necessary to achieve total dry film thickness and/or metallic control.

*Flash times will vary dependent upon film thickness, temperature, solvent selection, spray gun set-up, application, etc.

Recommended Film Thickness:		Per Coat	Total
	Wet Film Thickness (WFT)	2 - 3 mils	4 - 6 mils
	Dry Film Thickness (DFT)	1 mils	2 mils

Caution: All 2-component crosslinking slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, decreased durability and improper curing can occur.

Estimated Drying Times:

Air-Dry @ 50% Relative Humidity, 70°F/21°C
LVG (Mixed 3:1:1 with LVX270 and Reducer)

Reducer	Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
MAP-LVRS01/01**	Not recommended	10-15 minutes	25-35 minutes	45-60 minutes	1-2 hours	8-11 hours	16-22 hours
MAP-LVRS02/01 or MAP-LVRS03/01	287 437SP/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	MAP-LVA117/08	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours
	47117SP/04	10-15 minutes	15-20 minutes	25-40 minutes	1-1½ hours	7-10 hours	12-16 hours

*Times listed in the chart above are for a full load of accelerator.
**Also available in /04

Recoating: Paint films cured over 24 hours should be cleaned, lightly dry scuff sanded with 320 – 400g by hand/machine or wet sanded with 600g, then cleaned again before recoating.

Force Dry: Allow 30 minute purge before baking to prevent solvent popping. Bake for 40 minutes at 140°.

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:

VOC Information

VOC Actual RTS	0.18 – 1.85 lbs/gal
VOC Actual RTS	22 – 221 g/L
VOC Regulatory (less water less exempt) RTS	0.36 – 2.30 lbs/gal
VOC Regulatory (less water less exempt) RTS	43 – 276 g/L

For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data

Performance Characteristics

Volume solids (RTS)	45.28% - 54.88%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	727 - 761 sq.ft./RTS gal
Application Conditions - Temperature	60°F (16°C) Minimum 100°F (38°C) Maximum
Application Conditions - Relative Humidity	85% maximum 5° above dew point

For specifications and other technical data refer to MPC211 MAP-LV specifications document

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Acrylic Polyurethane Ultra Low VOC

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 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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Part No. MPC187 05/22