



MPC100

**Matthews Acrylic Polyurethane**

**MAP<sup>®</sup>**

MAP<sup>®</sup> (Matthews Acrylic Polyurethane) is famous for its ability to withstand exposure to extreme climatic conditions. Once cured, MAP's highly durable, chemically cross-linked coating allows most graffiti to be removed with a suitable solvent and process. This product can be applied over many properly prepared and primed substrates such as aluminum, steel, wood, or other existing coatings.

MAP has an unlimited selection of standard and custom colors that can be adjusted to a wide range of gloss levels. Color offsets to any manufacturer are also available.



**Features:**

**Benefits:**

- 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
- Brush and roll capability .....For use in areas where air spraying is prohibited

**Compatible Surfaces:**

**MAP Acrylic Polyurethane may be applied over properly prepared:**

- |                                      |                                 |   |
|--------------------------------------|---------------------------------|---|
| 6001SP Polyester Primer Surfacer     | 74350SP 3.5 Non-Chromate Primer | LVU100 Ultra Low VOC Epoxy Primer           |
| 6007SP 3.5 Gray Epoxy Primer         | 74 734SP Metal Pretreatment     | SMPFV205A Chromate Free 3.5 VOC Wash Primer |
| 274 685SP U Prime                    | 74 760SP PT Filler              | SMHB404A Urethane Filler                    |
| 274 808SP Black Epoxy Primer         | 74 770SP HBPT                   | SMP001A Epoxy Gray Primer                   |
| 274 908SP White Epoxy Primer         | 74 780SP HBEF                   | SMP002A Epoxy White Primer                  |
| 274 528SP 2.1 VOC Gray Epoxy Primer  | 74 777SP Tie Bond               | SH5106 White Primer                         |
| 274 530SP 2.1 VOC White Epoxy Primer | 274 777SP Low VOC Tie Bond      | Z6248 1K WB White Primer                    |
| 274 531SP 2.1 VOC Black Epoxy Primer | 274 793SP Low VOC Spray Bond    |   |

**Associated Products:**

**Catalyst**

- 43 270SP Universal Catalyst
- 43 621SP Brushing Catalyst  
(For brush or roller application)
- 43 999SP Slow Catalyst  
(For hot weather, bake application or for very large substrates)

**Reducer**

- 6379SP Cool temperature, 60 - 75°F (16 - 24°C)
- 45 280SP Warm temperature, 70 - 80°F (21 - 27°C)
- 45 290SP Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP Hot temperature, 80°F (27°C) & above
- 45 251SP Retarder, to be blended up to 50% with reducer. Not to be used by itself.

**Accelerator**

- 287 437SP HS Accelerator
- 47117SP MAP Accelerator
- 287 484SP HS Turbo Enhancer
- MAP-LVA117 Ultra Low VOC Accelerator

## 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	43 270SP, 43 999SP	Reducer*	with Accelerator
3 parts	1 part	1 part	Optional**

\*Choose MAP reducer

- 6379SP Cool temperature, 60 - 75°F (16 - 24°C)
- 45 280SP Warm temperature, 70 - 80°F (21 - 27°C)
- 45 290SP Very warm temperature, 75 - 85°F (24 - 29°C)
- 6396SP Hot temperature, 80°F (27°C) & above
- 45 251SP Retarder, to be blended up to 50% with reducer. Not to be used by itself.
- NOTE: Larger jobs may require a hotter temperature reducer.

\*\*Refer to MPC218 for optional accelerators and amounts.

- For Brushing and Rolling, refer to Technical Data Sheet MPC159.
- 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	Accelerator*	Max load of accelerator per RTS qt	Pot-Life
Spraying	Without Accelerator		8 hours
	287 437SP	1.5 oz	2 hours
	MAP-LVA117	1 oz	45 min
	47117SP	1 oz	1 hour
	287 484SP	.5 oz	1 hour
Brush and Roll	Not Recommended		8 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**Additives:**



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

- 47 888SP Flattening Paste (refer to MPC204)
- 287 112SP Medium Suede Additive
- 287 113SP Suede Additive
- 74 103SP Low VOC Basecoat Converter
- 47 444SP Brush/Roller Additive
- 47 474SP Flex Additive
- SOA 955SP Matting Clear (refer to MPC205)

## Directions for Use

### 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

### 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		Per Coat	Total
Film Thickness:	Wet Film Thickness (WFT)	3 - 4 mils	6 - 8 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  
 MAP (mixed 3:1:1 with catalyst and reducer)

Accelerator*	Dust Free	Set to Touch	Dry to Handle	Tape Time	Vinyl Application (2-3 mils)	Reflective Metallic Vinyl Application
Without Accelerator	15 minutes	30 min-1 hour	1.5-2 hours	16 hours	48 hours	96 hours
287 437SP	15 minutes	30-45 minutes	1-1.5 hours	1 hour	24 hours	48 hours
MAP-LVA117	15 minutes	30-45 minutes	1-1.5 hours	45 minutes	24 hours	48 hours
47117SP	15 minutes	30-45 minutes	45 min-1 hour	45 minutes	24 hours	48 hours
287 484SP	15 minutes	30-45 minutes	45 min-1 hour	2 hours	8 hours	24 hours

\*Times listed in the chart above are for a full load of accelerator. Refer to MPC218 for optional accelerators and amounts.

**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 lacquer thinner or equivalent cleaning solvent.

**Note: Do not leave mixed material in equipment.**

**Technical Data:****VOC Information**

VOC Actual RTS	4.46 - 5.50 lbs/gal
VOC Actual RTS	534 - 659 g/L
VOC Regulatory (less water less exempt) RTS	4.46 - 5.49 lbs/gal
VOC Regulatory (less water less exempt) RTS	534 - 658 g/L

For complete VOC information, visit [MatthewsPaint.com](http://MatthewsPaint.com) > Quick Links > VOC Data

**Performance Characteristics**

Volume solids (RTS)	25% - 31%
Theoretical Coverage (1 mil @ 100% transfer efficiency)	500 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 MPC101 MAP specifications document

**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  
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