



MAP[®]
ULTRA LOW VOC

The Best of Both Worlds!



MAP Ultra Low VOC Specifications

Pencil Hardness	HB
Flexibility.....	1/8" Mandrel, No Cracks
Impact Resistance	
Forward @ 2 Weeks Air Dry	150+ in-lbs
Reverse @ 2 Weeks Air Dry	150+ in-lbs
Theoretical Coverage (Varies with Color)	
1 mil DFT @ 100% Transfer Efficiency	727-761 sq ft per (RTS) gal
Flash Point (Tag Closed Cup).....	Below 70°F/21°C
Recommended Dry Film Thickness	2.0 mil DFT min.
Volume Solids	47.1% - 61.2%
Volume Solids (RTS).....	45.28 - 54.88%
Application Conditions	60°F/16°C Minimum 100°F/38°C Maximum
Relative Humidity	85% Maximum
Substrate Temperature	5° Above Dew Point, 60°F/16°C Minimum
Equipment.....	Conventional, HVLP, or Electrostatic
VOC Actual RTS	0.18 - 1.91 lbs/gal
VOC Actual RTS	22 - 229 g/L
VOC Regulatory (less water less exempt) RTS.....	0.36 - 2.34 lbs/gal
VOC Regulatory (less water less exempt) RTS.....	43 - 280 g/L
For complete VOC information, visit MatthewsPaint.com > Quick Links > VOC Data	
Solvent Resistance	
100 MEK Double Rubs @ 1 Day Air Dry	No Effect
Chemical Resistance 10% Solutions	
Acids	No Effect
Alkalis	No Effect
Salt Fog - 1000 hours	
Adhesion Rating	5A
Scribe Creep Rating	9
Face Blister Rating.....	9
Gloss Retention - QUV B	
1500 hours @ 60°	92%

Caution: All 2 component cross-linking stops or slows significantly at temperatures below 60°F or 16°C. Never spray or subject freshly painted coatings to these conditions or loss of gloss, poor water and chemical resistance, decreased durability and improper curing will occur.

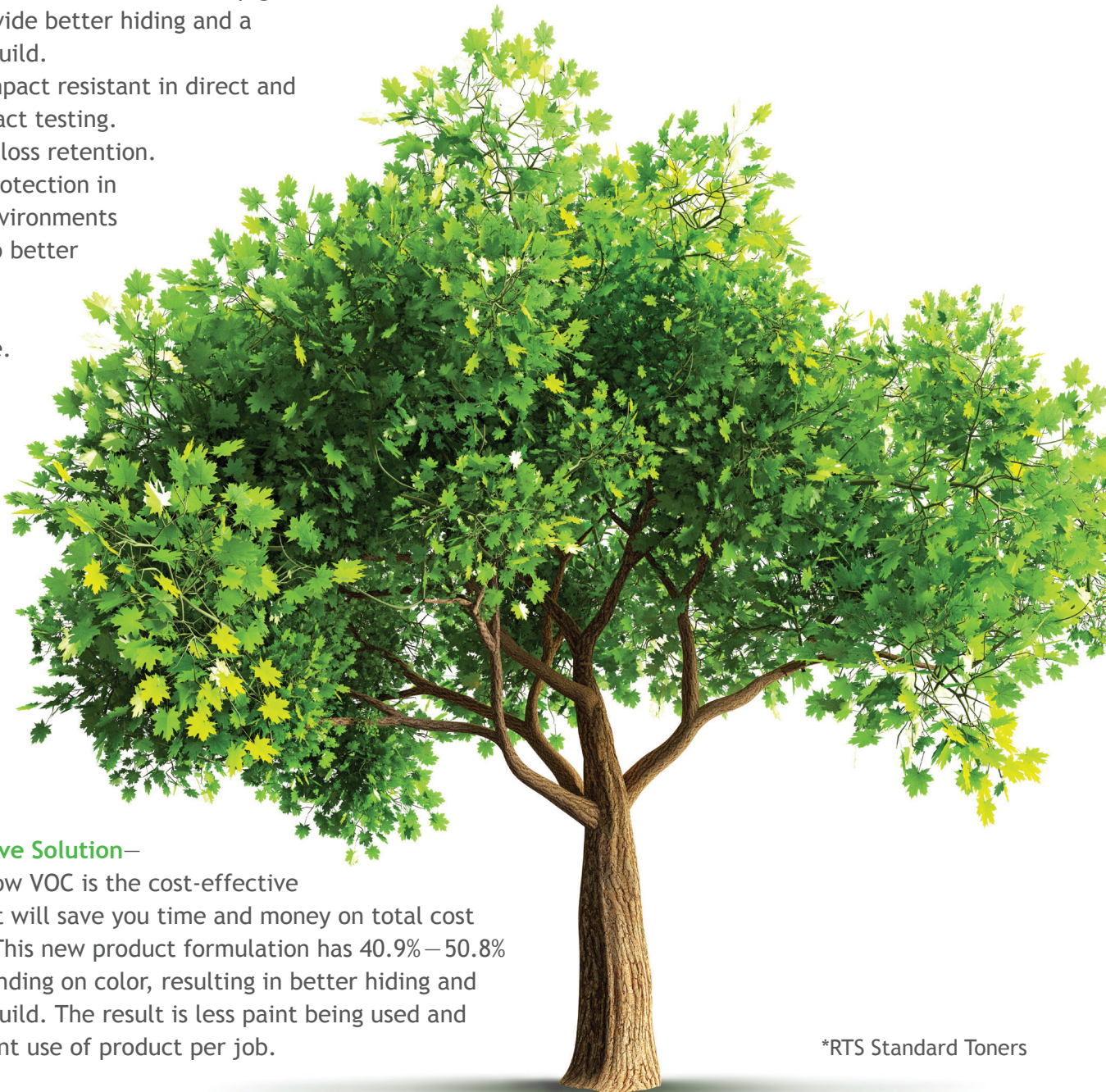


MAP[®] ULTRA LOW VOC

Lowest VOC in the Industry!

A benchmark high-performance polyurethane color toners system that limits VOC to 50g/L or .55 lbs/gal while delivering superior color and durability.*

- High solids formula and maximum pigment content provide better hiding and a faster film build.
- 50% more impact resistant in direct and reverse impact testing.
- 25% better gloss retention.
- Enhanced protection in corrosive environments and holds up better to extreme changes in temperature.



- **Cost-Effective Solution—**

MAP Ultra Low VOC is the cost-effective solution that will save you time and money on total cost per gallon. This new product formulation has 40.9%–50.8% solids, depending on color, resulting in better hiding and faster film build. The result is less paint being used and more efficient use of product per job.

*RTS Standard Toners



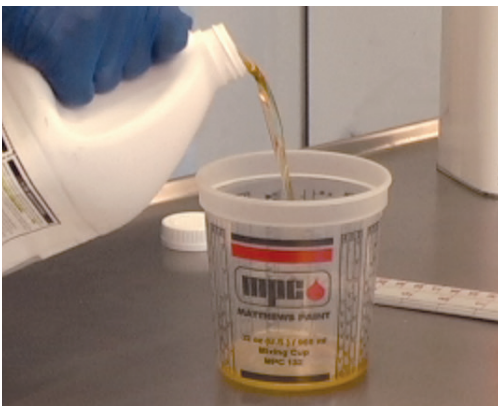
MAP Ultra Low VOC has less impact on the environment while providing superior performance.



Improved viscosity to flow and lay optimally.



MAP Ultra Low VOC has lower VOC levels than even some water-based paints.



MAP Ultra Low VOC mix ratio is similar to the MAP Conventional topcoats.

MAP Ultra Low VOC FAQ's

Q *Why should I use MAP Ultra Low VOC (MAP-LV)?*

A In addition to MAP-LV being an environmentally-friendly product, this revolutionary sign paint provides greater durability, gloss retention and hiding than standard acrylic polyurethane paints. Making the switch is easy with the same mix ratio, color selection and great customer service you have come to know from Matthews Paints. It really is the best of both worlds!

Q *How does MAP Ultra Low VOC high solids formula compare to sign paint industry standard acrylic polyurethane VOC levels of 2.8 or 3.5 VOC?*

A MAP-LV sign paint in solid colors has a VOC level, as applied, of less than 50g/L or 0.42 lbs/gallon. This is significantly lower and more environmentally friendly than standard acrylic polyurethanes! As applied, MAP-LV metallic formulas are less than 80g/L. In addition, MAP-LV has lower VOCs than similar automotive waterborne products.

Q *Is the mix ratio of MAP-LV similar to other topcoat Matthews product lines?*

A The mix ratio MAP-LV is 3:1:1—the same as all existing Matthews color lines.

Q *How does the MAP-LV compare to the existing broad color range of the current MAP color space of over 90,000 formulas?*

A All of the existing formulas are available in the MAP Low VOC sign paint product lines.

Q *What gloss levels are available in the MAP-LV sign paint line?*

A Both satin and gloss are available. Gloss levels in between can easily be achieved by mixing satin with the new MAP-LVC clears.

Q *How does the impact resistance compare to standard sign paint industry acrylic polyurethane products?*

A The MAP-LV sign paint product was designed to provide enhanced flexibility to the film base and has been measured to be 50% more impact resistant than industrial-grade polyurethane in direct and reverse impact testing. MAP-LV is resistant to expansion and contraction due to changes in the weather and has improved performance on flexible substrates.

Q Does the MAP Ultra Low VOC have a brush and roll capability?

A Yes! It was developed to be sprayed, brushed or rolled with no additional additives required. MAP-LV is formulated for excellent leveling in brush/roll applications for unparalleled appearance characteristics. The mix ratio for brush and rolling becomes easier than ever before with the MAP-LV.

Q What benefits does the high solids formula provide me as a user?

A MAP-LV, like all Matthews products, is formulated with maximum pigment volume content for the best possible hiding. The high solids product maximizes sign paint usage applied per pass and the combination results in excellent coverage characteristics.

Q How does MAP Ultra Low VOC compare to typical conventional industrial-grade polyurethane in accelerated weathering tests?

A Tests have proven MAP-LV's gloss retention to be two times better than typical conventional industrial-grade polyurethanes.

Q What substrate adhesion tests have been done?

A Aluminum, Steel, Daytona Board, Styrene, Kydex, Lexan Polycarbonate and clear acrylic plexiglass. We are continuing laboratory work on additional substrates.

Q Is MAP-LV fully compatible with all other Matthews primers?

A MAP-LV exhibits excellent adhesion over all Matthews primers.

Q What companion products have been developed to complement the MAP Ultra Low VOC sign paint product line?

A There are currently three clear coats (matte, satin, and gloss), three spray reducers, a brush/roll reducer, an ultra low VOC primer, and multiple accelerators available.



EZ Spray's 2-component technology allows for quick and easy repair of scratched or damaged signs in the field while maintaining the same quality finish you expect from Matthews Paint. The system uses any Matthews Paint custom color or clear, ensuring a perfect match.

Features & Benefits

- Durable two-part, professional polyurethane system
- Theoretical transfer efficiency is 30% better than conventional spray equipment
- Four times the pot life of conventional spray process
- Any formula available today can be loaded into the can
- Excellent for repairs in the field
- Color indicator on cap depicts color in can
- Covers 8-12 sq ft @ 2 mil per can
- 6H compliant



760 Pittsburgh Drive • Delaware, OH 43015
Toll Free: 800.323.6593 • Fax: 800.947.0377

MatthewsPaint.com    

mpc PAINT DROPS DESIGN in color is a trademark of PPG Industries Ohio, Inc.
mpc MATTHEWS PAINT and Droplet and Rounded Rectangle is a registered trademark of PPG Industries Ohio, Inc.
MAP is a registered trademark of PPG Industries Ohio, Inc.