

# Technical Data Sheet

Solutions for LMC-6044P Paste



## Product Description

The **LMC-6044 Premium Black** Marking Material is a new and improved version of the old LMC-6044 Black Marking Material. It offers improved handling characteristics, will not dust off of the substrates it is applied to, and has smoother, blacker marks.

The LMC-6044 Premium product is a laser marking material for ceramic, glass and porcelain substrates. The LMC-6044 Premium is water based, which allows for moderate drying time and easy clean up. The products can be used on a variety of materials such as ceramic, tile, dinnerware, mugs, sanitary ware, glasses and porcelains including automotive glass, spandrel, container glass and the like.

## Physical Properties

<b>Appearance</b>	Colored liquid, with water like consistency.
<b>Density</b>	11.0-15.0 pounds/gallon
<b>Flash Point</b>	Not applicable
<b>Drying Rate</b>	Moderate

## Strengths of Product

Allows CO<sub>2</sub>, YAG, and Fiber lasers to mark substrates such as ceramics, glass and porcelain with color. Produces marks resistant to abrasion and heat; fast drying; water based, organic free for environmentally preferred clean-up.

## Recommended Application Parameters

<b>Application Methods</b>	Spray gun, airbrush, or aerosol.
<b>Application</b>	Clean the surface to be marked so that it is free of any lubricants or oils. The LMC series must be applied with an even coat to ensure a consistent mark and color.
<b>Coverage</b>	500 grams of an LMC series product will cover approximately 2500 – 3000 square inches.
<b>Wet Film Thickness</b>	Approximately 3.0 wet mils.
<b>Thinner</b>	Thin with water as needed.
<b>Recommended reduction</b>	Use as supplied, thin if necessary.
<b>Suggested Cleaning Solvents</b>	Wash with water or a wet towel.

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### Curing/Drying of Product

#### **Drying Method**

#### **Drying Parameters**

Air dry, radiant heat, hair dryer or convection oven.

Typically air dries in about 5-10 minutes, can be sped up by force drying.

### Laser Marking of Product

#### **Laser Marking Method**

#### **Recommended Starting Point for Settings**

CO<sub>2</sub>, YAG, or Fiber laser

CO<sub>2</sub>: 18-30% power (35 watt laser)

10-25% speed

500 DPI / 500 PPI

YAG: 10-20 watts

10-20 inches/sec speed

### Application Notes

For optimum mark quality, an even coat of the LMC product should be applied. If the material is applied too thin, the marks will not be as dark. If the material is applied too thick, more power will be required to make the mark and bonding may be incomplete. Applying the LMC series products will require practice to achieve the right coverage. It is also important to allow the coating to dry thoroughly. **We recommend that all CerMark LMC products be applied in a well-ventilated area or spray booth designed to pull air away from user.**

### Marking Notes

Marking may require some trial and error to optimize your laser with a particular substrate. Keep in mind that all lasers react differently depending on the substrate. Best results are obtained when marking at lower powers and slower speeds. High powers tend to damage glass substrates and should be avoided whenever possible. Experimentation should be performed to find settings that produce an acceptable mark without glass damage.

### Product Preparation

Insure that the product has been well mixed prior to use. Some settling may occur during extended storage periods. Material temperature should be equivalent to room temperature prior to viscosity measurement or application.

### **Storage Recommendations**

Product must be stored in cool and dry conditions. Storage temperature should be between 40°F (5°C) and 95°F (35°C). Settling may occur if stored for long periods of time. Before use, products must be stirred thoroughly. Partly used containers must be tightly sealed after use. If stored as recommended, a minimum shelf life of six months after the production date is guaranteed.

### **Contact Information**

For questions about properties of this product, application techniques or laser settings, please contact:  
800-245-4951 Customer Service & Technical Service

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