

Technical Data Sheet

Solutions for LMM-6904 Anodize Aluminum Paste



LMM-6904 is a laser marking material for anodized aluminum. This material can be used to produce a black mark on anodized aluminum surfaces. LMM-6904 will not work on metals with a lacquered coating.

Physical Properties

Appearance	Black colored liquid.
Density	13.98 -14.10 pounds/gallon
Flash Point	N/A
Drying Rate	2-3 minutes, can be accelerated by forced air.

Strengths of Product

Versatility and ease of application. High quality, high contrast, durable marks on anodized aluminum.

Recommended Application Parameters

Application Methods	Spray gun, airbrush or foam brush.
Application	Clean surface of anodized aluminum so that it is free of any lubricants or oils. LMM-6904 must be applied with an even and thin coat to ensure a consistent mark.
Wet Film Thickness	0.5 – 1.0 wet mils.
Thinner	Water
Recommended reduction	For brushing applications, use LMM-6904 as is. For spray applications, LMM-6904 can be used as is, or it can be thinned with water if necessary.
Suggested Cleaning Solvents	Wash with water or a wet towel.

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Curing/Drying of Product

Drying Method

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

Drying Parameters

Typically air dries in about 2 minutes, can be sped up by force drying.

Laser Marking of Product

Laser Marking Method

CO₂, YAG or Fiber laser

Recommended Starting Point for Settings

CO₂: 100% power (35 watt laser)

5-30% speed

500 DPI / 500 PPI

YAG: 20-25 watts

10-20 inches/sec speed

Application Notes

For optimum mark quality, a thin even coat of LMM-6904 should be used. 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. Applying LMM-6904 may require practice to achieve the right coverage. It is also important to allow the coating to dry thoroughly.

In most cases, LMM-6904 can be used as is. It may be necessary to thin the paste before using. Application method will determine the amount of water required, along with room temperature and humidity. The ratios recommended above should be sufficient. Keep in mind that the more the material is thinned, the less active ingredients are being applied. Overthinning will result in a lighter mark.

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. You may need to run several tests to optimize the settings for your laser.

Product Preparation

Insure that the product has been well mixed prior to use. Settling will occur during storage. Avoid long periods where material has not been mixed. Material temperature should be equivalent to your printing room temperature prior to measuring viscosity or application.



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Storage Recommendations

Product must be stored in cool and dry conditions. Storage temperatures should be between 40°F (5°C) and 95°F (35°C). Settling may occur if stored for long periods of time. **Material should be mixed every 3-4 weeks to avoid hard settle.** 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 ship 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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