Technical Data Sheet

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Solutions for LMM-6151 Copper Paste

CerMark™

Our **LMM-6151** Copper laser marking material is a newly formulated product designed to make Whitish marks on metal with CO2, Fiber and YAG lasers. This product has been found to work best on **stainless steel, Black Parkerized metal and Black Oxide treated metal.** The LMM-6151 may also work on other bare metals, which have not been fully evaluated. The presence of a **clear or lacquered** coating on the metal substrate will inhibit the **LMM-6151** from properly bonding to the metal substrate.

Thinning
This material does not require any thinning. If thinning is necessary then a small amount of water should be added. If too much water is added, the **LMM-6151** material will not perform properly, so care must be taken when thinning.

Product Preparation
Ensure that the product has been well mixed prior to use. Some settling may occur during long storage. The **LMM-6151** must be poured through a 190 micron paint strainer when transferring this material into your spray device. Filtering the material will remove any foreign substance that could interrupt the follow of the material while spraying. Occasional stirring of this product may be necessary during usage. If the **LMM-6151** Copper has set in a spray device longer than 5 minutes without stirring it's recommended the material be removed and stirred before continuing. For marking consistency it is always recommended for the material to be stirred often. Material temperature should be equivalent to room temperature prior to application.

Applying
Clean the surface of the metal so it is free of any type of lubricants or oils. Application of this product is important to achieve good results. The **LMM-6151 Copper** should be applied using a spray gun or airbrush. Apply a very light coating of the **LMM-6151** marking material to the metal substrate. Apply just enough material to cover the surface of the metal underneath. ***Trial and error will be necessary to achieve desired appearance.** If the material is applied too thick, it will require more power to produce the mark, the color development and texture may be affected. It is important that the **LMM-6151** Copper is applied with **an even and thin coat.** Applying this product may require practice to achieve the right coverage and obtain the desired appearance.
We recommend that all CerMark LMM products be applied in a well-ventilated area or spray booth designed to pull air away from user.

Drying
It is important that the marking material is allowed to dry thoroughly. It will air dry quickly, generally in about 2 minutes. Using a drying oven, hair dryer or a heat lamp can speed up this process.

Marking On Stainless Steel
This step 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, the type of laser, the laser's power, spot size, and other factors. If possible, we strongly recommend using a test power grid on a piece of the actual substrate to optimize the marking parameters. Please reference the CerMark publication, **"Optimizing Power Settings"** for more information.

Recommended Starting Point Settings on Stainless Steel

Note: These power settings were used on a 45 Watt CO2 laser marking system with a 1.5 inch spot size. Actual settings on your laser may vary, these settings are given as a guideline only.

RD-6151 Copper Metal Marking Material	
Power	**100% power** *(full 45 watts)*
Speed	**5% to 30%** *(100% speed = 40 inches per sec. with our machine)*
Dpi/Ppi	**500/500**

Clean up
To clean, wash the marking material off with plain water or a wet towel then dry.

Storage Recommendations
Product must be stored in cool and dry conditions. The storage temperatures should not be below 5ºC and not exceed 35ºC. 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.

Contact Information

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