

Technical Data Sheet

Solutions for CerMark ULTRA Paste



CerMark ULTRA is specifically formulated to laser mark on most laser markable substrates such as metals, glass, ceramics (glazed or unglazed), stone, brick (glazed & unglazed), slate and more using just one CerMark product. This new product is by far superior to our existing product line formulated to achieve the best results in the industry.

CerMark ULTRA is ethanol based which allows for a faster drying time.

Using CerMark ULTRA:

Strengths of Product

Allows CO₂, YAG, and Fiber lasers to mark the follow substrates: Uncoated metals such as stainless, brass, aluminum and more as well as ceramics, glass, porcelain, brick and more. Produces high contrasting, highly durable marks; fast drying; will not stain sensitive metals such as brass, nickel and others.

Recommended Application Parameters

Application Methods Application

Spray gun, airbrush, or aerosol.
Clean the surface to be marked so that it is free of any lubricants or oils. The **ULTRA** must be applied with an even coat to ensure a consistent mark and color.

Coverage

500 grams of the CerMark **ULTRA** will cover approximately 6000 square inches.

Thinner Recommended reduction

Thin with ethanol.
1:1 ratio by volume: 1 part ULTRA – 1 part ethanol

Suggested Cleaning:

Wash with water or a wet towel or sponge.

Limitation of Warranty and Liability

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Laser marking metals:

A variety of bare metal substrates including stainless steel, brass, aluminum, titanium, tin, copper, nickel and more.

Applying:

Clean the surface of the metal so that it is free of any type of lubricants or oils. Apply a thin coat of **CerMark ULTRA** to the metal, apply an even coating. Try to cover the area to be marked with a light spray, using two passes. For high quality results it's important for the **CerMark ULTRA** to be applied evenly across the marking area. Applying **CerMark ULTRA** may require practice to achieve the right coverage. **We recommend that all CerMark ULTRA be applied in a well-ventilated area or spray booth designed to pull air away from user.**

Drying:

It is important that the **CerMark ULTRA** is allowed to dry thoroughly. It will air dry in about 2 minutes. **For best results do not force dry coated parts which includes using air blower or fan.**

***CO2 Laser systems**

Marking On Stainless Steel & Other metals:

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, dot size, and other factors:

The following laser setting are to be considered starting points, more test marks may be necessary to optimize performance.

	25 Watt	35 Watt	50 Watt
Power	100%	90-100%	80-100%
Speed	10%	30-60%	30-80%
DPI/PPI	600/600	600/600	600/600

Marking On Aluminum & Brass:

Softer Metals require more power or slower speeds to obtain a permanent mark. We recommend at least a 50 Watt CO₂ lasers for such metals.

	Brass			Aluminum		
	25 Watt	35 Watt	50 Watt	25 Watt	35 Watt	50 Watt
Power	100%	90-100%	90-100%	100%	90-100%	90-100%
Speed	10%	10-30%	20-40%	10%	10-30%	20-40%
DPI/PPI	600/600	600/600	600/600	600/600	600/600	600/600

- Scrub test marks with 3M Scotch-Brite for verifying durability / Medium Duty Scrub Pad.
- Based on these results choose the best setting for your application.

If using a **Fiber or YAG** laser you may need to run several tests to optimize the settings for your particular laser, similar to above Testing Grid.

Laser marking non-metals:

CerMark ULTRA can be used on a variety of materials such as glass, ceramic, tile, brick, dinnerware, mugs, stone, slate and porcelains. Results: A high contrast, smoother, blacker mark.

Applying:

Clean the marking surface so that it is free of any lubricants or contaminants. The **CerMark ULTRA** must be applied with an even coat to ensure a consistent mark and color. For optimum mark quality, an even coat of the **CerMark ULTRA** should be applied. Applying **CerMark ULTRA** will require some practice to achieve a correct and even coverage.

We recommend that all CerMark products be applied in a well-ventilated area or spray booth designed to pull air away from user.
Drying:

It is important that the **CerMark ULTRA** is allowed to dry thoroughly. It will air dry in about 3 to 5 minutes.

For best results do not force dry coated parts which includes using heat lamps, air blowers or fans.

***For higher contracting marks a second coat is recommended but allow the first coat to dry for at least 30-40 seconds.**

Recommended Starting Point for Settings:

CO2: 15%-30% power (35 watt laser)

10%-40% speed

600 DPI / 600 PPI

***Higher power output will allow for faster speed settings. This is true for all laser systems!**

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. For more information regarding power and speed settings contact CerMark Technical Support 800-245-4951

Storage:

Do not expose to temperatures exceeding 50 degrees C / 120 degrees F.

Clean up:

Wash with water or a wet towel or sponge.

Contact Information:

To place an order or questions about properties of this product, application techniques or laser settings please call:

800-245-4951

Customer Service & Technical Service Representative

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