FUKKOL®

Nourishment for Your Machines

# TECHNICAL DATA SHEET

## LASER MARKING INK



## Description:

***FUKKOL LASER MARKING SPRAY*** is an all Purpose laser bonding material for producing permanent black marks on most surfaces and materials and is ready to use. It is ethanol based which allows for a faster drying time. It can be used on a variety of substrates including glass, ceramic, stone and metals such as stainless steel,brass, aluminum, copper, titanium, tin, nickel and many others.Shake the can well for about one minute before using. For best results, use between 50° and 90° F.

## Applications:

- Tracking and traceability
- Surgical instruments/ medical device ID's
- Decorative use
- Signage
- Awards
- Manufacturing
- Medical and surgical instruments,
- Home appliances
- Decor
- Anti-Counterfeiting
- Quality control
- Barcoding
- Product serialization

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## Applying:

***FUKKOL LASER MARKING INK*** is a water-based concentrate and needs to be shaken vigorously for 1 – 2 minutes to insure that all ingredients are thoroughly mixed and then diluted with denatured alcohol by at least 1:1 for manual application using, preferably, a foam brush OR by at least 2:1 for application using an airbrush or spray gun and it is recommended that the spray be applied by holding the nozzle about 10" – 12" away from the surface and misting the ***FUKKOL LASER MARKING INK*** directly onto it using a side-to-side motion. Dilution ratios of up to 5:1 have proven to work successfully; however you should start with these lower dilution guidelines and increase the amount of denatured alcohol until a smooth and even coat is achieved. The dilution with denatured alcohol is important as it helps to break the surface tension and keeps the ***FUKKOL LASER MARKING INK*** from beading up or separating/streaking on the substrate surface.

## Caution:

If metal surfaces have a lacquer coating, the ***FUKKOL LASER MARKING SPRAY*** material **will not work**.**Drying:** It is important that the ***FUKKOL LASER MARKING SPRAY*** is allowed to completely dry and will air-dry in about 2 minutes. The drying time can be decreased by using a hair dryer, heat gun or a heat lamp.

## Marking:

This step may require some trial and error to optimize your laser for a particular substrate material. Keep in mind that all lasers react differently depending on the substrate, the type of laser, the laser power and speed, the lens and other factors. Softer metals such as aluminum, copper and brass require more power or slower speeds to obtain a permanent mark. It is recommended that at least 30 Watts of C02 laser power be used; however lower powers can achieve good results.

| | Glass | | Ceramic | | Stainless Steel | | Aluminum | |
|---|---|---|---|---|---|---|---|---|
| | 30 Watt | 50 Watt | 30 Watt | 50 Watt | 30 Watt | 50 Watt | 30 Watt | 50 Watt |
| Power | 30% | 20% | 50% | 30% | 100% | 100% | 100% | 100% |
| Speed | 30% | 30% | 50% | 50% | 50% | 75% | 5% | 10% |
| DPI/PPI | 300/300 | 300/300 | 600/600 | 600/600 | 500/500 | 500/500 | 1000/1000 | 1000/1000 |

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For **Nd:YAG, DPSS or Fiber** lasers, **20 - 30 Watts** of laser power will be necessary in order to use a marking speed of 300 - 500 mm/second or faster. Again, you may need to run several tests to refine the laser settings.

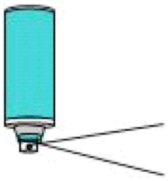
## Clean up:

After use, the excess ***FUKKOL LASER MARKING INK*** may be cleaned up using a damp cloth or paper towel or it can be rinsed under plain tap water. It is safe to let the excess material go down the drain. The nozzle should be cleaned by inverting the can and spraying until mist becomes clear. Any excess material on the nozzle should be removed with water. The nozzle can be removed and soaked in warm water or alcohol if spraying difficulty is encountered or nozzle becomes clogged.

**IMPORTANT**

**Before Spray**
shake can for at least 60 seconds in order to apply an even, thin coating

**After Spray**
invert can and press nozzle for a few seconds to clear LBM material in valve



| Model | Volume |
|---|---|
| 10014-500ML | 500MLSpray |
| 10014-250ML | 250ML |
| 10014-1000ML | 1000ML |

24pcs / per carton