

## results

### 1 optimal

If your image is **dense black** and you have little to no relief in the imaged area, you have reached optimal results and maximized contrast, resolution, and durability performance.

### 2 over mark

Over marking usually results in noticeably **etching or relief** of the image. Image blackness is sacrificed as well especially when viewing the image area at an angle.

### 3 under mark

Under marking results in a **brownish, grayish or faint** image. Under marking can also cause inconsistency in the image as power is delivered unevenly to the AlumaMark.

optimal



over mark



under mark



## final word

There is care to be taken with all laserable material. AlumaMark has shown to be one of the easiest metals for laser marking. Although it may take some trial marking to discover the best settings for your laser, these settings should work for most jobs. Variability of quality after you have found your settings is most likely an issue of the specific art file you are working with.

- thank you and enjoy!



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## laser settings and marking guidelines

AlumaMark is an **extraordinary** new **aluminum** that uses the **heat of the laser** to mark rather than etch. Correctly imaged AlumaMark results in **rich black positive graphics** that feel **smooth** to the touch. AlumaMark enables you to create **high contrast**, easy to read graphics with **superior resolution** and high **durability** characteristics.

The following provides guidelines to help you achieve consistent, high quality images on AlumaMark.



## how to use AlumaMark

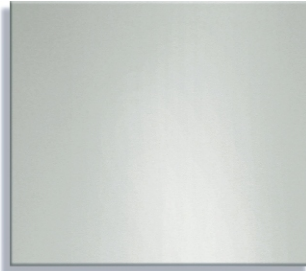
AlumaMark aluminum sheets are **markable on one side only**.

Currently three finishes of aluminum are offered in .005" and .020" gauges.

Different finishes may require **different laser settings** for best results.

## finishes

matte silver



satin silver



satin gold



## focal power

Optimal marking results are based on a **combination** of the **power** and **speed** settings.

AlumaMark aluminum requires relatively **low focal power** (that is the amount of laser power applied at the point of beam contact). While establishing a power setting determines the level of the beam wattage, speed determines how long that amount of power is applied to a given point on the AlumaMark sheet.

## settings

Specifically, the following settings for Power and Speed are recommended:

**power:** Select a % of the laser's rated power that results in a Power Level of **5-15 Watts**. For example, on a 50-Watt laser, select a power setting of 10-30%.

**speed:** Select a % of speed in the **30-60%** range.

## further explanation

A laser that is set at high power and slow speed results in strong power delivered at the point of contact and will etch or over mark AlumaMark. Since we are attempting to mark, rather than cut, this is undesirable. A setting that is too fast at a low power will not allow enough time for the beam to mark AlumaMark and will result in an under mark or no mark. (See examples on the back side)

## considerations

While the previous settings are initially recommended, the best settings are those which you develop based on your image requirements, production needs, software, and laser capabilities. Review the results guidelines to adjust your laser accordingly to deliver more or less nominal power at the contact point.

Other factors can affect marking quality, including software, file resolution and quality, type of lens, focal length, and the flatness of the AlumaMark.\*

\*AlumaMark is manufactured from coil aluminum. Each sheet is flattened at the factory prior to packaging. Due to the memory of the metal, some sheets may exhibit a slight bow when you receive them. Always make sure your sheet is held flat during lasering for optimal results.