# CANCODE

### www.camcode.com

## **Product:** AlumaMark<sup>®</sup> BlackPLUS<sup>™</sup> Laser Markable Aluminum for **YAG or Fiber Lasers**



#### **Product Features**

- Designed for use with YAG or Fiber Lasers
- Performs well in outdoors, blowing sand, high heat and chemical environments
- Inorganic black colorant with satin finish marks quickly and easily
- High contrast silver marks on black background

## Need a Durable YAG or Fiber Laser-Markable Material?

#### Description

Camcode's AlumaMark BlackPLUS is the most durable YAG/ Fiber laser-markable aluminum on the market. This label is constructed of aluminum with an inorganic black colorant with satin finish, displaying silver graphics on a black background. Label thicknesses include .005" and .020" with a high -performance permanent pressure-sensitive adhesive and/or holes for mechanical attachment.

AlumaMark BlackPLUS performs well outdoors and resists temperatures up to 650 degrees F. It also has excellent resistance to UV, abrasion and chemical solvents.



### **Product Specifications**

Material	.005" or .020" aluminum with an inorganic black colorant		
Attachment	Permanent pressure-sensitive adhesive and/or holes for mechanical attachment		
Label Copy	Several font types are available, as well as logos or other design elements		
Colors	Silver graphics on silver background		
Standard Sizes	Standard and custom sizes available		
Packaging	On sheets, matrices removed, or in bags or boxes		
Shipment	5 to 10 working days from receipt of order and approval of artwork. Expedited shipment is available for an additional charge.		



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## AlumaMark<sup>®</sup> BlackPLUS<sup>™</sup>

## **Durability Characteristics**

PRODUCT DATA	VALUE	TEST METHOD	
Exterior Exposure	No Effect	Using our Image Instensification Process, black and silver image exceeds 400 hr. Weatherometer est GG-P-455b, estimated equivalent to 20 yr. exposure	
Abrasion Resistance	Slight dulling of surface	Taber Abraser with CS17 wheel, a total of 1000 gm. load 1000-2000 cycles	
Temperature Resistance	650°F	Using our Image Instensification Process	
Corrosion Resistance	Not recommended	Salt spray, ASTM B117 for 700 hrs.	
Chemical Resistance			
MII-S-3136 111 Hydrocarbon Fluid	No Effect	1 hr. immersion	
MIL-L-5161C-Turbine and jet engine fuel	No Effect	1 hr. immersion	
JP-4 Fuel	No Effect	72 hr. immersion	
Kerosene	No Effect	12 hr. immersion	
Skydrol (Hydraulic Fluid)	No Effect	24 hr. immersion at both room temp. and boiling point	
Methyl Ethyl Ketone (MEK)	No Effect	24 hr. immersion	
Ethyl Acetate	No Effect	24 hr. immersion	
Xylol	No Effect	72 hr. immersion	
Heptane	No Effect	72 hr. immersion	
Ethyl Alcohol	No Effect	72 hr. immersion	
Ferric Chloride	No Effect	10% solution, 16 hr. immersion	
Ammonium Hydroxide	Slight Dulling	10% solution, 16 hr. immersion	
MIL-P-21563 soap solution	No Effect	16 hr. immersion	
MIL-C-25179 AIN in heptane	No Effect	25% solution, 1 min. immersion (cleaning solution)	
Sulfuric Acid	No Effect	10% solution, 24 hr. immersion	
Phosphoric Acid	No Effect	1% solution, 12 hr. immersion	
Nitric Acid	No Effect	3% solution, 72 hr. immersion	
TSP (Trisodium Phosphate)	No Effect	1% solution, 40 hr. immersion	
Sodium Hydroxide	Not Recommended (surface attack)	1% solution, 1 hr. immersion	

SPECIFICATION	PUBLICATION	DETAIL	DESCRIPTION
MIL-P-15024F, Type L (laser generated plate)	Military Specification	Type L	According to Type L, testing "shall be determined by the acquiring activity and the supplier". Horizons ISG recommends the standards of A-A-50271 be adopted for MIL-STD-15024F, Type L

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Note: Users must test products in the specific environment anticipated. Camcode does not warrant performance of its materials in any environment.

For free samples or to order: contact Camcode at 800-627-3917 or customer\_service@camcode.com



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