

UID Labels /  
Nameplates

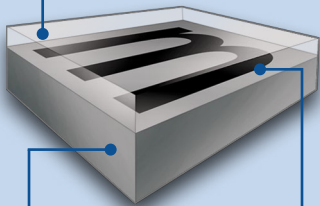
Service Diagrams /  
Schematics

Machine  
Control Panels

## THE TECHNOLOGY:

### ANODIZED LAYER

The glass-clear, sapphire-hard anodized layer resists chemicals, paint, abrasion and dirt.



### SEALED IMAGE

The image is absorbed into the pores.

### ALUMINUM LAYER

The rigid aluminum base won't peel, crack or delaminate.

## EXCEPTIONALLY DURABLE. WIDELY SPECIFIED. ALWAYS READABLE.

For over 50 years, the United States Department of Defense has specified Metalphoto photosensitive anodized aluminum for durable labels, nameplates, schematics and control panels installed in harsh operating environments.

The United States Navy first adopted Metalphoto in 1958 for shipboard labels, placards and damage control signs. Since then, Metalphoto has been incorporated into several major Army weapons systems including the Abrams Tank, the Bradley Fighting Vehicle and the HMMWV. Both Marine Corps and Army Depots operate Metalphoto production facilities. All Departments utilize Metalphoto for Item Unique Identification (IUID) barcode labels as specified under MIL-STD-130.

*When durability matters, specify Metalphoto.*

## PRODUCT BENEFITS

### EXCEPTIONALLY DURABLE:

- + UV-stable image is permanently sealed within the anodized aluminum.
- + Virtually impervious to chemicals, heat, abrasion, salt spray and sunlight.
- + Certified for 20 year plus outdoor application.
- + Earned more top scores than any other IUID barcode label material tested by the U.S. Navy (NSWC, Corona Division, IUID Center; August 2011).

### WIDELY SPECIFIED:

- + Meets a wide array of commercial, government and military specifications.
- + Notable certifications include: MIL-STD-130N, STANAG 2290, GGP-455B(3) Type I, MIL-DTL-15024F, MIL-P-19834B and A-A-50271 (several others listed on metalphoto.com).

### PHOTOGRAPHIC RESOLUTION:

- + Photographic image affords extreme detail and contrast at any size.
- + Anti-counterfeit security printing is available.



UV STABLE



ABRASION  
RESISTANT



TEMPERATURE  
RESISTANT



FLUID  
RESISTANT



RECYCLABLE

**PERFORMANCE CHARACTERISTICS**

Because of its ability to perform across a range of challenging environments, Metalphoto meets an array of government, industrial and military specifications. Visit [www.metalphoto.com](http://www.metalphoto.com) for a list of specifications for which Metalphoto is qualified.

| CHARACTERISTIC                                  | RESULT   |
|---|--|
| <b>Abrasion Resistance</b>                      | No pronounced image loss, degradation or reduced readability after 7,000 cycles on an abrading wheel.  |
| <b>Acid Corrosion</b>                           | No deterioration or image degradation after 24 hours in 3% nitric acid.  |
| <b>Heat Resistance</b>                          | No legibility loss or degradation when subjected to 1,000°F.   |
| <b>Salt Spray Corrosion</b>                     | No deleterious effect after a 720-hr salt spray (fog) test. 2,6 "Very Good" corrosion resistance after 113 days seawater exposure.   |
| <b>Accelerated Light and Weather Resistance</b> | No pronounced deterioration of legibility after 400-hr carbon arc weatherometer exposure. (≈ 20+ year outdoor life)  |
| <b>Accelerated Oxygen Aging</b>                 | No discoloration or fading after 96-hr/300 psi/ 70°C oxygen bomb aging   |
| <b>Stain Resistance</b>                         | No black fading when plates are exposed to tincture of iodine.   |
| <b>Cleaning Resistance</b>                      | No deleterious effects when tested with alkaline cleaners (MILC- 87937 or equivalent) for aircraft surfaces.   |
| <b>Low Temperature Resistance</b>               | No deleterious effect or image fade after 1 hour at -50°F. No impairment of legibility upon exposure at -67°F.   |
| <b>Organic Solvent Resistance</b>               | No softening, staining or noticeable fade after 24-hr exposure to: JP-4 fuel, Gasoline, Mineral Spirits, Methyl Ethyl Ketone, Turpentine, Turbine & Jet Fuel, Kerosene, Xylol, Acetone, Toluol, Heptane, Trichlorethylene, MIL-H-5606 Hydraulic Fluid and MIL-L-7808 Jet Engine Oil. |
| <b>Fungus Resistance</b>                        | Visual reading of "0" per ASTM-G21.  |
| <b>Thermal Shock</b>                            | No deterioration after 3 cycles between -65°C and 125°C  |
| <b>Moisture Resistance</b>                      | No deterioration after 10 humidity cycles per MIL-STD-202, method 106.   |

**PRODUCE OR PROCURE?**

Metalphoto can be easily produced at your location. Alternatively, finished parts may be purchased from a network of approved suppliers around the world. Contact Horizons Imaging Systems Group for an analysis of the production requirements of your application(s).

**TECHNICAL SPECIFICATIONS**

**MATERIAL:** Anodized Aluminum Sheets

**SIZES:** 10" x 12", 12" x 20", 20" x 24", 20" x 40", 24" x 40"

**THICKNESSES:** .003", .005", .008", .012", .020", .032", .039", .063", .090", .125"

**FINISHES:**



**MATTE**  
non-reflective  
with dull finish



**SATIN**  
semi-gloss medium  
reflective material



**# 4**  
brushed to resemble  
a stainless steel finish



**GLOSS**  
highly reflective,  
mirror-like

**TO ORDER**

Call **1-800-482-7758** or visit our website at **Metalphoto.com**

\*Horizons ISG does not warrant the performance of its materials in any environment.  
Metalphoto is a registered trademark of Horizons Incorporated.

Ver. 1.1 SEPT 2012