



Durable Bar Code Solutions

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## Product: Metalphoto Teflon UID Label



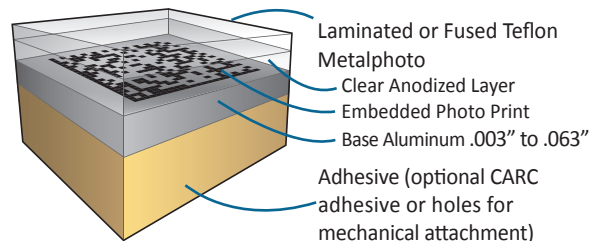
### Product Features

- Laminated or Fused Teflon® is resistant to cleaning, pickling, painting, e-coat, and powder coating processes, as well as caustics and strong acids.
- Metalphoto® is the most specified label material in history for DoD applications, and the best choice for MIL-STD-130 applications requiring durable UID labels.
- Photographic quality black and silver graphics are high contrast with excellent resolution.
- Attachment options include high performance 3M application adhesives, CARC adhesive, or holes for mechanical fasteners.
- All Camcode UID labels are verified to the required print quality standards. Registration service is also available.

## Need Paint-Resistant UID Labels?

### Description

Camcode's **Metalphoto® Teflon® UID** label is designed with superior quality for the most demanding applications. This label is constructed of anodized aluminum face stock (thicknesses from .003" to .063") with a laminated or fused Teflon coating, and a high performance permanent pressure-sensitive adhesive or holes for mechanical attachment. The adhesive is designed to permanently bond to metals and low surface energy (LSE) materials. An optional CARC adhesive is also available. The label has excellent resistance to cleaning, pickling, painting, e-coat and powder coating processes, caustics, strong acids; and will withstand exterior exposure in the harshest environments, including extreme cold, heat and UV. When treated with our image intensification process, Metalphoto's expected exterior life exceeds 20 years.



### Product Specifications

- Material** Aluminum face stock with a laminated Teflon coating (Metalphoto .003" to .063") or fused Teflon coating (Metalphoto .012" to .063").
- Attachment** High performance 3M application adhesives, CARC adhesive, or holes for mechanical fasteners.
- Label Copy** Several font types are available as well as logos or other design elements.
- Symbologies** All common symbologies available including code 3 of 9, 12 of 5, 128 and Data matrix.
- Colors** Black graphics on silver background or silver graphics on black background.
- Standard Sizes** Standard and custom sizes available.
- Packaging** On sheets, matrices removed, or in bags, in boxes, in sequential order. 100% no missing numbers.
- Shipment** 15 working days from receipt of order and approval of artwork. Expedited shipment is available for an additional charge.

# Metalphoto® Teflon® UID

## Durability Characteristics

PRODUCT DATA	EFFECT Laminated Teflon® FEP <sup>3</sup>	EFFECT Fused Teflon® PTFE <sup>4</sup>	EFFECT Fused Teflon® FEP <sup>3</sup>	TEST METHOD
Exterior Exposure	No Effect	No Effect	No Effect	Using Metalphoto Image Intensification Process, black and silver image exceeds 400 hr. Weatherometer est GG-P-455b, estimated equivalent to 20 yr. exposure
Abrasion Resistance	Not Recommended Teflon Loss - Image OK	Not Recommended Teflon Loss - Image OK	Not Recommended Teflon Loss - Image OK	Taber Abraser with CS17 wheel, a total of 1000 gm. load 7000 cycles
Paint Shedding	Excellent	Excellent	We Recommend Testing Your Application	
Temperature Resistance	300°F	500°F	400°F	Using Metalphoto Image Intensification Process
Salt Spray	No Corrosion	No Corrosion	No Corrosion	5% at 95°F for 700 hrs.
Chemical Resistance				
MIL-S-3136 111 Hydrocarbon Fluid	No Effect <sup>2</sup>	No Effect	No Effect	1 hr. immersion
MIL-L-5161C-Turbine and jet engine fuel	No Effect <sup>2</sup>	No Effect	No Effect	1 hr. immersion
JP-4 Fuel	No Effect <sup>2</sup>	No Effect	No Effect	72 hr. immersion
Kerosene	No Effect <sup>2</sup>	No Effect	No Effect	12 hr. immersion
Skydrol (Hydraulic Fluid)	No Effect <sup>2</sup>	No Effect	No Effect	24 hr. immersion at both room temp. and boiling point
Methyl Ethyl Ketone (MEK)	No Effect <sup>2</sup>	No Effect	No Effect	24 hr. immersion
Ethyl Acetate	No Effect <sup>2</sup>	No Effect	No Effect	24 hr. immersion
Xylo	No Effect <sup>2</sup>	No Effect	No Effect	72 hr. immersion
Heptane	No Effect <sup>2</sup>	No Effect	No Effect	72 hr. immersion
Ethyl Alcohol	No Effect	No Effect	No Effect	72 hr. immersion
Ferric Chloride	No Effect	No Effect	No Effect	10% solution, 16 hr. immersion
Ammonium Hydroxide	No Effect	No Effect	No Effect	10% solution, 16 hr. immersion
MIL-P-21563 soap solution	No Effect	No Effect	No Effect	16 hr. immersion
MIL-C-25179 AIN in heptane	No Effect	No Effect	No Effect	25% solution, 1 min. immersion (cleaning solution)
Sulfuric Acid	No Effect	No Effect	No Effect	10% solution, 24 hr. immersion
Phosphoric Acid	No Effect	No Effect	No Effect	1% solution, 12 hr. immersion
Nitric Acid	No Effect	No Effect	No Effect	3% solution, 72 hr. immersion
TSP (Trisodium Phosphate)	No Effect	No Effect	No Effect	1% solution, 40 hr. immersion
Sodium Hydroxide	No Effect <sup>1</sup>	No Effect <sup>1</sup>	No Effect <sup>1</sup>	1% solution, 1 hr. immersion

SPECIFICATION	PUBLICATION	DETAIL	DESCRIPTION
GG-P-455b	Federal Specification	Type I, Grade A or B Class 1 & 2	Photosensitive anodized aluminum impregnated with silver compounds printable on one or two sides - all finishes and thicknesses.
MIL-P-15024D	Military Specification	Type H & G	Totally anodized aluminum with characters integrated into the anodized layer photographically using silver compounds.
MIL-P-19834B	Military Specification	Type I or II Style III or IV	Metalphoto .003" thick plates with the proper adhesive applied meets or exceeds all of the performance requirements of this spec.
MIL-P-514D	Military Specification	Composition C	Photosensitive aluminum plates, grade and class as specified in federal specification GG-P-455b.
Industrial Commercial Products	Original Equipment Panel Fronts Nameplates	Metalphoto Products	Material shall be Metalphoto. Image (black on silver or silver on black shall be sealed into the anodized layer with photosensitive silver compounds) colors other than black may be imbedded by resist or screen process.

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<sup>1</sup> Top Surface Only - will react with exposed edge.

<sup>2</sup> Top Surface Only - exposed adhesive edges may soften or swell.

<sup>3</sup> FEP should not be used in place of PTFE in applications where the label is exposed to high levels of radiation (>0.2 Mrad).

<sup>4</sup> Black background not recommended.

Note: Users must test products in the specific environment anticipated.

Camcode does not warrant performance of its materials in any environment.



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