

UID Nameplates and Labels Specifications

Material: Metal - .008" thick matte anodized aluminum is standard. Optional thicknesses include: .012", .032" and .063". **Foil** - .003" thick matte anodized aluminum is standard. .005" thick matte anodized aluminum is optional. **Serialization:** All alphanumeric bar codes are photo imaged with a human-readable equivalent. Guaranteed no skips in sequence. **Sizes:** Send email to metalcraft@idplate.com or fax request to 641-423-8898 or call 800-437-5283 for details on available sizes.

Affixing Method: Specially matched adhesives ensure maximum adhesion or optional holes available for mechanical fasteners (metal option only). **Shipment:** 7 work days upon receipt of order and proof approval. **To Order:** Call **1-800-437-5283** and ask for a UID Specialist.

Beyond Compliance

Unique Item Identification is the foundation for larger policy goals aimed at improving logistical readiness across DoD such as Serialized Item Management (SIM) and Joint Total Asset Visibility (JTAV).

Joint Total Asset Visibility (JTAV)

JTAV is described as the "fusing and sharing of logistical data across functional and services" as in DoD's Joint Vision 2020. DoD's unique identifiers become a key component in facilitating overall increased asset visibility across the military supply chain by identifying precisely where an item is and how it is being used. Logisticians can then use this source of information to adjust and manage inventories strategically minimizing the possibility of running out of a critical component.

Serialized Item Management (SIM)

From a maintenance standpoint, UID has been specified as the key data element in DoD's Serialized Item Management for Materiel Maintenance policy. SIM is intended to assist in DoD's weapon system lifecycle management and maintenance operations. More directly, the Deputy Undersecretary of Defense for Logistics and Materiel Readiness sees the SIM policy as providing the framework to extract value from UID by improving the "effectiveness and efficiency of design and logistics process, improve weapon systems readiness, reliability and safety, and reduce ownership costs through enhanced sustainment operations." Simply put, serialized item management using UID can enable practices such as predictive and prognostic maintenance that can in turn yield significant logistical and operational savings.

UID is truly a key enabler of many other efforts that can yield customers a very real return on investment needed for compliance. If you have any questions or would like additional information, please contact a Metalcraft UID specialist at 800-437-5283 or visit www.idplate.com.

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Unique Item Identification - or UID as it is commonly referred - is a Department of Defense mandate that requires a globally Unique Item Identifier to track items throughout their lifecycle. Because the mandate specifies the UID mark must last the service life of the item being identified, this presents some challenging marking applications in difficult environments.

That's where Metalcraft comes in. Our photo anodized nameplates and labels are an ideal solution for many UID applications. Produced using a photo imaging process that seals images within the sapphire-hard anodic layer of the aluminum - resisting chemicals, solvents, abrasion and dirt - these robust products ensure accurate and reliable reads for years to come. Various thicknesses allow for versatility in application surfaces - flat or curved - and specially matched adhesives ensure maximum adhesion or optional holes are available for mechanical fasteners.

And because it is a Metalcraft UID product you receive all the same benefits as our other UID products - expert knowledge from our team of UID specialists, verification and validation reports, ect.

Remember - we also now offer UID Registration services truly making Metalcraft a one-stop shop for complete UID compliance.

Key Points

- Expertise in working with the UID spec
- UID Registration Service available
- Photographically reproduced black copy and bar codes ensure accurate rate and reliable reads
- Anodizing process protects black copy and bar codes from chemicals, abrasion and high temperatures
- Established company with a reputation for durable and reliable products
- Intensification process increases heat resistance and improves image resistance against damaging UV rays

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Photo anodized aluminum bar codes are known for maintaining their readability in a wide range of environments and uses. They perform better than other types of labels and nameplates in demanding environments with the exception of those environments that chemically attack aluminum, such as highly caustic or highly acidic applications. Recommended performance is in a pH range of 5.5 to 8.5.

Our UID photo anodized nameplates and labels are produced using an image intensification process

which results in higher product performance in heat and ultraviolet conditions.

The chart included with this information will help determine if anodized aluminum is right for your application. Always test a sample in your exact environment to ensure performance. Tests were conducted in laboratory environments and may or may not simulate your conditions.

Temperature Tests

Product Tested	Test Conditions	Effect on Readability
Image Intensified Photo Anodized	265 hours 500°F 90 hours 600°F 60 hours 700°F	Dark reflectance is reduced at these thresholds. This can affect readability.*

Ultraviolet Exposure Tests

Product Tested	Test Conditions	Effect on Readability
Image Intensified Photo Anodized	Weatherometer, 20 years equivalent	Reduced overall readability after these thresholds.*

Abrasion Tests

Product Tested	Test Conditions	Effect on Readability
Image Intensified Photo Anodized	Plates were brushed for 7000 cycles with a stiff nylon wheel (C-17) at a 1000 gm (16 oz.) load	Reduced overall readability after this threshold.*

Environmental, Chemical Atmosphere & Contact Tests

Characteristics	Test Conditions	Result
Acids and Bases	Ammonium Hydroxide 2 hours at 1%, 2 hours at 5%	Slight dulling of image; affects overall readability*
	Ferric Chloride, 10%, 16 hours	No effect
	Nitric Acid, 1%, 40 hours	No effect
	Phosphoric Acid, 1%, 40 hours	No effect
	Sodium Hydroxide	Affects overall readability
	Sulfuric Acid, 10%, 24 hours	No effect
Cleaning Agents	Water	No effect
	Tetra sodium pyrophosphate, 1%, 40 hours	No effect
	Trisodium Phosphate	No effect
Fungus Resistance		Visual reading of "0" per ASTM-G21
Moisture Resistance		No deterioration after 10 humidity cycles per MIL-STD-202, method 106
Low Temperature Resistance		No deleterious effect of image fade after 1 hour at -50°F. No impairment of legibility upon exposure at -67°F.
Organic Solvents	Ethyl Alcohol	No effect
	Heptane, 72 hours	No effect
	Hydraulic Fluid	No effect
	JP-4 Fuel	No effect
	Kerosene	No effect
	Methyl Ethyl Ketone	No effect
	Skydrol	No effect
	Turbine sodium pyrophosphate, 1%, 40 hours	No effect
Salt Spray Corrosion	Salt Spray, 5% at 95F, 700 hours	No effect; "Very good" corrosion resistance after 113 days seawater exposure
Stain Resistance		No black fading when plates are exposed to tincture of iodine
Thermal Shock		No deterioration after 3 cycles between -65°C and 125°C

*Bar code labels and nameplates exhibit reduced readability when they cannot be read from the same distances and/or angles as before they were degraded. In most cases the print contrast ratio has been reduced. Labels and nameplates may read, but they may require more attempts to read or may read at limited distances and/or angles.

Photo anodized bar code labels and nameplates read reliably in demanding situations. Different results may be experienced due to variances in reader type, reader distance, cleanliness of part surface or label or nameplate design. Please test a sample part for your application.