



Features

Small size makes label unobtrusive
Photo anodized aluminum resists abrasion, solvents, sun, salt air, and high temperatures
DataMatrix symbology utilizes only one-tenth the space of traditional bar codes
High redundancy in DataMatrix symbology means bar code will still read if as much as 60% of the image is destroyed

Product Print Options

Data Matrix . QR Code

Product Functionality

Abrasion Resistance . Chemical Resistance . Heat Resistance . UV/Outdoor Durability

Popular Applications

Audio / Visual . Inventory . Hospitals

Category

Foil

Metalcraft's Foil 2D Dot is an ideal identification solution for small parts tracking - specializing in extreme conditions where abrasion and high temperatures may be an issue. The 2D DataMatrix ECC200 bar code symbology allows you to identify and track property as well as record calibration and maintenance information in one-tenth the space of traditional bar codes.

Made of a resilient photo anodized aluminum, the Foil 2D Dot Bar Code Label resists abrasion, solvents, sun, salt air, and high temperatures while the bar code and human-readable is sealed within the anodic layer of the aluminum to protect readability.

An image intensification process ensures the bar code will read every time even when exposed to damaging UV rays and high temperatures. Plus, because of the high redundancy within the DataMatrix bar code symbology, the bar code is still readable if as much as 60% of the image is destroyed.

Specifications Data

Material	.003" thick matte anodized aluminum
Serialization	All alphanumeric DataMatrix codes are photo imaged with a human-readable equivalent. Guaranteed no skips in sequence. Standard symbology is 2D DataMatrix ECC200, which includes the full set of ASCII characters. DataMatrix is a highly redundant bar code and is still readable if up to 60% of the bar code is destroyed.
Label Copy	The label copy may include bar code and human-readable equivalent.
Colors	Choose black copy with silver background or silver copy with black background.
Standard Adhesive	Pressure-sensitive acrylic adhesive
Sizes	.375" x .375"
Packaging	Shipped 100 per sheet. Cartons are clearly marked to indicate serial numbers of contents. Pressure-sensitive adhesive orders are shipped with application tool and instructions.
Shipment	10 business days

Chemical Testing

Chemical Test Data

Characteristics	Test conditions	Effect
Water/humidity		no effect
Salt spray	5% at 95°F, 700 hours	no effect
Ammonium hydroxide	2 hours at 1% and 5%	Slight dulling of image, affects overall readability
Ethyl alcohol		no effect
Ethyl acetate	24 hours	no effect
Ferric Chloride	10%, 16 hours	no effect
Heptane	72 hours	no effect
Hydrocarbon fluid		no effect
JP-4 Fuel		no effect
Kerosene		no effect
Methyl Ethyl Ketone		no effect
Nitric acid	1%, 40 hours	no effect
Phosphoric acid	1%, 40 hours	no effect
Skydrol		no effect
Sodium hydroxide		Affects overall readability
Sulfuric acid	10%, 24 hours	no effect
Turbine and jet fuel (MIL-L 5161C)	(MIL-L 5161C)	no effect
Tetra Sodium Pyrophosphate	1%, 40 hours	no effect
Trisodium Phosphate		no effect

Destructive Testing

A label with an intensified image was tested in a weatherometer, 20 years equivalent; reduced overall readability after these thresholds

Temperature Testing

A label with an intensified image was tested for 265 hours at 500°F, 90 hours at 600°F, 60 hours at 700°F; reduced overall readability after these thresholds

Abrasion Testing

A plate with an intensified image was brushed for 7,000 cycles with stiff nylon wheel (C-17) at a 1,000 gm (16 ox.) load; reduced overall readability after these thresholds