European Universal Mini RFID Asset Tags

The closest thing you will find to a "one-size-fits-all" RFID solution! The European Universal Mini RFID Asset Tag is a surface-independent tag that uses a unique inlay design and passive RFID technology to obtain excellent read ranges regardless of the surface – metal, plastic, even wood allowing you to use only one RFID tag for your asset tracking application.

The European Universal Mini RFID Asset Tag features an inlay design that offers the lowest profile of any tags in its class – solving a common issue many customers have with other metal mount RFID tags where a thick standoff creates an obtrusive nuisance for the user.

This unique inlay adheres to a subsurface printed label constructed of durable, yet flexible polyester. This process protects the copy, logo and/or bar code against moderate solvents and caustics/acids while our four-color processing capabilities allow you to promote your company with a label that shows off your company name or logo. Metalcraft's digital printing process ensures even the most detailed logos will look crisp and clean.

Key Product Features

- Smaller footprint and lower profile while still achieving excellent read range sets this product apart from others

- Patented inlay design obtains excellent read ranges regardless of surface–metal, plastic, even wood

- Subsurface printing on durable polyester protects printed copy against moderate solvents and caustics/acids

- Digital printing process provides for greater print capability with detailed logos or special designs

- Choice of up to four standard or custom colors

- Excellent read range in European frequency

Not sure what product you need?

Call our trained experts
641-423-9460

3360 9th St. SW
Mason City, IA 50401
www.idplate.com
E-mail: metalcraft@idplate.com

*Read range differs by environment and reader type

European Universal Mini RFID Asset Tag Specifications

Construction: Inlay wrapped around .79mm closed cell foam.

Label Copy: The label copy may include block type, stylized type, logos or other designs. All copy, block type, stylized type, logos, designs, and bar code are subsurface printed.

Colors: Standard colors include black, red, yellow, green and blue. Due to contrast needed for the bar code scanner, all barcodes are black.

Serialization: Bar code and human-readable equivalent are produced using the latest high-resolution digital technology available, which provides excellent clarity and easy scanning. Code 39 is the standard symbology with a range of 2.7 to 9.4 CPI (characters per inch). Optional linear and 2D symbologies available.

Programming: The bar code and human readable can be programmed into the RFID inlay as long as the information is in decimal or hexadecimal (A-F, 0-9) format. Metalcraft custom encodes your information to EPC and user memory banks.

Locking: All Universal RFID tags are password locked. The password can be designated by Metalcraft, or, if desired, the customer can designate their own specific password.

Frequency: Custom designed UHF inlay uses Alien Higgs 3 chip optimized for use at 865 - 868 MHZ.

Standard Size: 76mm x 19mm

Standard Adhesive: Pressure-sensitive acrylic (MC778), .05mm thick supported by a liner. Very high peel strength that provides excellent resistance to heat and chemicals. Withstands temperatures from -40°C to 149°C (300°F) (intermittent). Shelf life of 24 months when stored at 22°C (71°F) and 50% relative humidity. Shipment: 20-25 work days depending on order quantity and inlay availability.

Test Results

These tests were conducted for a limited period of time in strict laboratory conditions. In order to achieve maximum satisfaction we highly recommend that any customer considering use of this product test the labels in the environment in which they will be used.

High-temperature resistance test - These tags were attached to a sheet of glass at raised temperatures for 10 minutes. Tags were then removed from the oven and tested for readability immediately.

Low-temperature resistance test - The E Universal Mini tags were attached to a sheet of glass at low temperatures outdoors. Tags were then checked for readability with a Motorola handheld RFID reader. Tags survived and were readable for 19 hours in winter conditions with temperatures between -29° (-20°F) to -32°C (-26°F) with no signs of failure.

Temperature	RFID read test (Immediately out of oven)	Appearance of tags
52ºC (125°F)	Reads well	No change
57ºC (135°F)	Reads well	No change
63ºC (145°F)	Reads well	No change
73ºC (163°F)	Reads well	Slight curling at edge
85ºC (185°F)	Reads well	Slight curling at edge
96ºC (205°F)	Reads well	Slight curling at edge
107ºC (225°F)	Reads well	Severe curling at edge – Tag discolored
121ºC (250°F)	Test failed	Tag destroyed

Chemical soak test - The E Universal Mini tags were attached to a sheet of glass submerged in various chemicals for a 3 week period. Observations were made at the following intervals: 2 hours, 24 hours, 1 week, 2 weeks, and 3 weeks. A Motorola handheld RFID reader as well as a handheld barcode reader were used to test the samples.

Length of Immersion	Water	Glass Cleaner	Bathroom Cleaner	Isopropyl Alcohol 99%	Acetone	NaOH pH 1.0	HNO₃ pH 1.0	HCl pH 1.0	Brake Fluid
2 Hours	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
24 Hours	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.	N.E.
1 Week	N.E.	N.E.	**	No read	Tag structure weakened	Tag detached	N.E.	N.E.	N.E.
2 Weeks	N.E.	**	**	No read	No read	Tag de-tatched	No read	No read	N.E.
3 Weeks	Tag peeled easily	Tag peeled easily	No read; Tag peeled easily	No read; Tag peeled easily	No read	Tag detatched	No read; Tag peeled easily	No read; Tag peeled easily	N.E.

N.E = No Effect | ** = RFID tag read with difficulty (significantly lower hits/second)

E Universal Mini Read Range Results (ETSI Band)			
Sample Average	METAL 2.8 M	PLASTIC 2 M	WOOD 1.6 M