



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
Excellent read range in European frequency
Compatible with RFID Tracking Software

Product Print Options

Barcode . Data Matrix . QR Code . RFID . Serial Number . Text

Product Functionality

Abrasion Resistance . Chemical Resistance . Heat Resistance

Popular Applications

Government . Inventory . Museum . Restoration . Transportation / Logistics . Utilities . Warehouse / Distribution Centers . Wineries / Breweries . Construction / Tool Tracking . Hospitals . IT Assets . Manufacturing . Schools

Category

Asset Tracking - RFID . RFID Tags

The closest thing you will find to a one-size-fits-all RFID solution! The European Universal Mini RFID 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 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 barcode 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. Our digital printing process ensures even the most

detailed logos will look crisp and clean.

Potential Applications For European Universal Mini RFID Tag

Asset Tracking – the barcode and human readable ID number on European Universal Mini RFID Tag can be used to track information about the metal asset the RFID tag is adhered to, i.e., laptops, furniture, containers, equipment and more.

Work-in-Process – the barcode and/or identification number on European Universal Mini RFID Tag can identify a “batch” OR “lot” of product or just simply identify each product as it travels through the production process.

Specifications Data

Material	Inlay wrapped around .79mm closed cell foam.
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.
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	Choose from our standard colors (black, blue, red, green, dark blue, orange, purple or yellow). The use of one or two colors is standard. Additional color options available. Custom colors also available. Metalcraft color samples available upon request.
Standard Adhesive	High performance adhesive
Frequency Range	865 - 868 MHZ
Sizes	70mm x 19mm
Packaging	Produced and shipped in roll form.

Chemical Testing

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.

Chemical Test Data

Length of immersion	Water	Glass cleaner	Bathroom cleaner	Isopropyl alcohol 99%	Acetone	NaOH pH 1.0	HCl pH 1.0	Brake fluid
2 hours	no effect	no effect	no effect	no effect	no effect	no effect	no effect	no effect
24 hours	no effect	no effect	no effect	no effect	no effect	no effect	no effect	no effect
1 weeks	no effect	no effect	RFID tag read with difficulty (significantly lower hits/second)	no read	Tag structure weakened	tag detached	no effect	no effect
2 weeks	no effect	RFID tag read with difficulty (significantly lower hits/second)	RFID tag read with difficulty (significantly lower hits/second)	no read	no read	tag detached	no read	no effect
3 weeks	tag peeled easily	tag peeled easily	no read; tag ppeled easily	no read; tag peeled easily	no read	tag detachedq	no read; tag peeled easily	no effect

Destructive Testing

Destructive Test Data

Temperature Testing

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 Test Data

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

Read Range Testing

Read Range Test Data

E Universal Mini Read Range Results (ETSI Band)

Sample	Metal	Plastic	Wood
Average	2.8 M	2 M	1.6 M

Barcode Readability Testing

Barcode Readability Test Data

Abrasion Testing

Abrasion Test Data

Label Adhesion Testing

Label Adhesion Test Data

Pull Testing

Pull Test Data
