



## 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  
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

Audio / Visual . Inventory . Restoration . Theater . Theme parks . Wineries / Breweries . Hospitals . IT Assets . Manufacturing . Schools

## Category

Manufacturing - RFID . Information Technology - RFID . Medical - RFID . Warehouse - RFID . Equipment Rental - RFID . Education - RFID . Asset Tracking - RFID . Tool Tracking - RFID . Work-in-Process - RFID . RFID Tags . Custom Asset Tags . RFID for Metal Surfaces

If you are looking for a small RFID tag, the Universal Mini RFID Tag is the one for you! The Universal Mini RFID Tag may be small in size, but it packs a powerful punch! Its compact design and slim profile make it ideal for spaces where larger tags would be cumbersome.

Despite its diminutive stature, these small RFID tags offer impressive read ranges that rivals larger tags in its category. The Universal Mini RFID Tag, with its compact size and less conspicuous design, is a small RFID tag that conveniently fits in places where other tags might be too bulky and noticeable. Despite its size, it offers impressive read ranges compared to other tags of similar category.

The Universal Mini RFID Tag is a smaller version of our original Universal RFID Asset Tag, designed to be more compact and discreet while still providing the same level of tracking and identification capabilities. This small RFID tag is ideal for use on smaller

items or in situations where space is limited, such as on electronic devices, tools, or inventory items.

Despite its smaller size, the Universal Mini RFID Tag still offers the same durability and long-lasting performance as its larger counterpart, making it a reliable solution for asset management and tracking needs. With its universal compatibility and easy integration with existing RFID systems, the Universal Mini RFID Tag is a versatile and cost-effective option for businesses looking to improve their asset tracking processes with small RFID tags.

The tag can be easily applied to any surface, thanks to its patented inlay design. The use of passive RFID technology enables the tag to achieve long read ranges, making it ideal for tracking and monitoring purposes. Whether it's on metal, plastic, or wood surfaces, this small RFID tag can provide accurate and reliable data collection. Its versatility and reliability make it a valuable tool for a wide range of industries and applications looking for small RFID tags.

The Universal Asset Tag, [Universal RFID Hard Tag](#), [Universal Micro RFID Tag](#), and [Universal MC RFID Tag](#) are part of a groundbreaking product line that simplifies asset tracking by allowing you to use just one RFID tag for all your tracking needs.

This innovative approach not only streamlines the tracking process but also significantly reduces the overall cost of tags. By consolidating your tracking system with these versatile RFID tags, you can streamline your operations and improve overall efficiency.

RFID tags allow for real-time tracking of inventory, assets, and equipment, providing you with accurate and up-to-date information at all times. This level of visibility can help you make informed decisions, reduce errors, and minimize the risk of lost or misplaced items.

Investing in RFID tags for your tracking system can result in substantial cost savings and operational enhancements in the long run. Utilizing RFID technology can help streamline processes, improve visibility, and ultimately boost business performance. With these cutting-edge products, managing your assets has never been easier or more cost-effective.

This unique inlay adheres to a subsurface printed label constructed of durable, yet flexible polyester. We make sure your copy, logo, and barcode are protected from solvents and acids. Additionally, our four-color processing capabilities enable you to showcase your company logo on a high-quality label. Metalcraft's digital printing process ensures even the most detailed logos will look crisp and clean.

## Specifications Data

<b>Material</b>	<b>Inlay wrapped around 1/32" closed cell foam. Total thickness .047".</b>
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 5.4 CPI (characters per inch). Optional symbology is Code 128.
Label Copy	The label copy may include block type, stylized type, logos or other designs
Colors	Standard colors include black, red, yellow, green, dark blue, orange, purple or blue. Custom spot colors are also available at no additional charge. Due to contrast needed for the bar code scanner, all bar codes are black.
Standard Adhesive	Pressure-sensitive acrylic adhesive
Frequency Range	Custom designed UHF inlay optimized for use between 902-928 MHz. ( UHF, Class I Gen 2 )
Sizes	2.75" x .75"
Packaging	Produced and shipped in roll form.

## Chemical Testing

The 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 12.0	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 week	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 peeled easily	no read; tag peeled easily	no read	tag detached	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 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 Iowa winter conditions with temperatures between -21 to -26°F with no signs of failure.

### Temperature Test Data

Temperature	RFID read test (immediately out of oven)	Appearance of tags
125°F	Reads well	No change
135°F	Reads well	No change
145°F	Reads well	No change
165°F	Reads well	Slight curling at edge
185°F	Reads well	Slight curling at edge
205°F	Reads well	Slight curling at edge
225°F	Reads well	Severe curling at edge - tag discolored
250°F	Test failed	Tag destroyed

## Read Range Testing

In many cases the tags read intermittently for longer distances than those indicated, however, the results reported below were for continuously responding reads.

Read Range Test Data

Universal Mini Anechoic Chamber Results

Sample	Metal	Plastic	Cardboard	Wood	Glass
Average	13.47 feet	6.8 feet	6 feet	9.67 feet	13.33 feet

## Barcode Readability Testing

Barcode Readability Test Data


## Abrasion Testing

Abrasion Test Data


## Label Adhesion Testing

Label Adhesion Test Data


## Pull Testing

Pull Test Data