Standard RFID Tag

RFID FOR NON-METAL SURFACES

Perfect for tracking returnable containers such as pallets, crates or totes, Metalcraft's Standard RFID Tag attaches directly to non-metal assets. The tag's construction protects the inlay by sealing it from environmental conditions while subsurface printing includes variable data like barcode/human readable numbers.

All Metalcraft RFID tags are designed with our proven durabilty, ready to withstand repeated usage in rugged environments, generating a greater ROI for your business. Each tag can be programmed to match the variable information printed on the label. Subsurface digital printing is available, which ensures crisp details on even the most complex logos for maximum clairty. Four color processing is available for limitless color and design options.

Our RFID labels are now available with our ColorFast™ option - a Tedlar® laminate that extends outdoor exposure for up to 10 years! Contact Metalcraft at 1-800-437-5283 or 641-423-9460 for more details.

Material and Design Specifications

- Overall dimensions: Multiple sizes are available
- 0.002" (0.051 mm) pressure-sensitive acrylic adhesive
- Flexible polyester material
- Features digital printing for complex details/logos
- Service Bureau printing options available.

Technical Specifications

- **RF protocol for UHF** EPC Global Class 1 Gen 2 ISO 18000-6C
- **RF protocol for NFC** ISO 14443
- **RF protocol for HF** ISO 15683
- **Frequency** UHF = 860-960 MHz and HF/NFC = 13.56 MHz
- **IC type:** Various
- **Chip memory:** Various

Key Features

- Attach directly to non-metal assets
- Tag construction protects the inlay from environmental conditions
- Read range on non-metal up to 18-20 ft. (5.49-6.1 m) - Inlay-dependent
- Subsurface digital printing ensures crisp looking logos and details
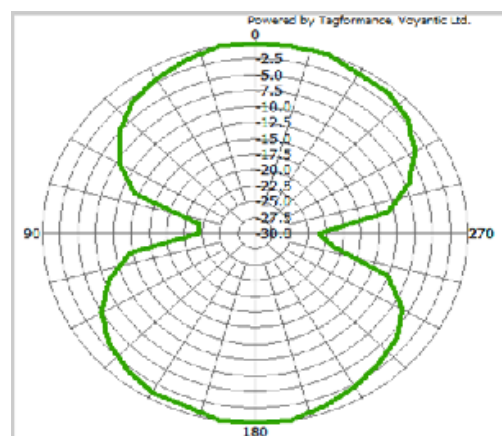- Compatible with RFID Tracking Software

Applications

- Asset Tracking
- Warehouse/ Inventory Tracking
- Returnable Container Tracking

Environmental Specifications

- Operating Temperature Range: -40 °F to +185 °F (-40 to +85 °C)
- UV Resistance: Indoor/outdoor use
- Chemical Resistance: Excellent resistance to strong acids like nitric acid and hydrochloric acid and strong alkalines such as sodium hydroxide. It can withstand exposure to mild and moderate chemicals such as glass cleaners but exposure to acetone should be avoided.
- IP68 certified

Radiation Pattern

*Standard inlay pattern, will vary with custom inlay options.

Test Results

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

Chemical Immersion Test: Standard RFID Tag, samples applied to glass panels, immersed in chemicals below.											
Immersion Time/ Sample	Water	Salt Water (5% NaCl)	Bathroom Cleaner	Glass Cleaner	Isopropanol	Brake Fluid	Acetone	Diesel Fuel	Nitric Acid	Hydrochloric Acid	Sodium Hydroxide
2 Hours											
Standard RFID Tag	NE	NE	NE	NE	NE	AO	AO	NE	NE	NE	NE
24 Hours											
Standard RFID Tag	NE	NE	NE	NE	NE	AO	AO, TD	AO	NE	NE	NE
48 Hours											
Standard RFID Tag	NE	NE	NE	NE	AO	AO	AO, TD	AO	NE	NE	NE
Key: NE = No Effect, AO = Adhesive Ooze, TD = Tag Delaminated											

Max Material Temperature Exposure
Standard RFID Tag
Up to 350 °F (176.7 °C) for 1 hour

Installation Instructions

1. Clean the surface using Isopropyl alcohol, alcohol pad or equivalent solvent to ensure surface is free from dirt, dust, oil and misc. debris that may affect adhesion.

2. Handle the tag by edges, peel release liner from back ensuring not to touch the adhesive.

3. Place the tag in desired tagging location and firmly apply even pressure to the tag for 5 seconds.

4. Do not disturb the newly mounted tag for at least 72 hours to ensure proper adhesive sealing.

Industry Compliance

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