RFID Flex Hard Tag

RFID FOR PLASTIC SURFACES

Metalcraft's RFID Flex Hard Tags are specifically designed for assets that need a rugged, yet flexible polymer RFID tag that is more cost-effective than traditional hard tags and has a reliable and consistent read range performance.
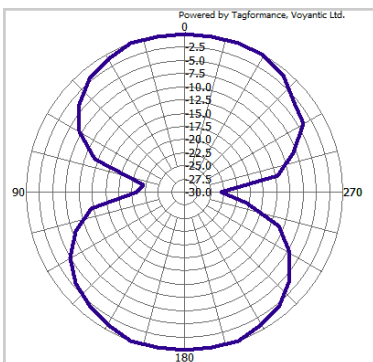
Material and Design Specifications

- Tag Size: Various
- Adhesive: None for the base option without attachment adhesive. Optional adhesives include MC78 and MC71.
- 0.018" (18 mils) for base construction without pre-printed copy or attachement adhesive.
- Rated for moderate to harsh indoor environments

Technical Specifications

- **Read Range:** Up to 24 ft. (7.32 m)
- **RF protocol:** Various UHF with Class 1 Gen 2 EPC ISO/IEC 18000-6C Compliant
- **Frequency:** UHF RFID Operation (840-960 MHz)
- **Chip Manufacturer:** Inlay-dependant

Key Features

- Up to 24 ft. (7.32 m) read range on metal surfaces
- High-performance, pliable polyester provides strength and rigidity
- Optional subsurface printing protects against extreme solvents, caustics, acids and abrasion.

Applications

- Returnable pallets, containers, utilities and embedding within injected molded products

Environmental Specifications

- Minimum Application Temperature (Optional Adhesives): 50 °F (10 °C)
- Temperature Range: -40 °F to +158 °F (-40 to 70 °C)
- UV Resistance: Indoor/Outdoor
- Chemical Resistance: Can withstand common cleaning chemicals
- IP68 certified

Radiation Pattern

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: Summarizes if tag survived soaking in fluids noted below for 2 hours, 24 hours and 48 hours.												
RFID Flex Hard Tag (Time)	Water	Salt Water	Bathroom Cleaner	Glass Cleaner	99% Isopropyl Alcohol	Brake Fluid	Acetone	Diesel Fuel	Nitric Acid	Hydrochloric Acid	Sodium Hydroxide	Hydraulic Fluid
2 Hours	NE	NE	NE	NE	NE	NE	AO	NE	NE	NE	NE	NE
24 Hours	NE	NE	NE	NE	AO	NE	AO, TD	AO	NE	NE	NE	AO
48 Hours	NE	NE	NE	NE	AO	NE	AO, TD, INR	AO	NE	NE	NE	AO
Key: (NE = No Effect, TD = Tag Delaminated, INR = Inlay No Read, AO = Adhesive Ooze Around Perimeter of Tag)												

Max Material Temperature Exposure
RFID Flex Hard Tag
Up to 300 °F (148.9 °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