



Global Universal RFID Asset Tag

UNIVERSAL PRODUCT LINE

Introducing a truly universal RFID tag that reads seamlessly across both FCC and EU frequency bands. Engineered for global compatibility, the Global Universal RFID Tag delivers impressive 10 ft. read ranges on metal - anywhere in the world. Choose from preprinted or on-site printable options to fit your workflow. Want to make a bold impression? The preprinted version supports full-color, four-color process printing - perfect for showcasing your logo with vibrant clarity.

Material and Design Specifications

- Overall dimensions: 2.9" x 1.2" (73.66 x 30.48 mm)
- 0.002" (0.051 mm) high performance acrylic MC78 adhesive
- 0.002" (0.051 mm) thick PET layer wrapped around 0.031" (0.79 mm) closed cell foam, total product thickness is approximately 0.04" (1.02 mm) for on-site printable and 0.043" (1.10 mm) for the preprinted option.
- Preprinted (digital printing process) and onsite-printable options available
- Packaging: 500 tags per roll, 3" (76.2 mm) ID core for onsite printable version, 2,000 tags per roll, 3" (76.2 mm) ID core for pre-printed version

Technical Specifications

- **RF protocol** Class 1 Gen 2 EPC ISO/IEC 18000-6C
- **Frequency** 860-930 MHz (Global)
- **IC type:** Various
- **Chip memory:** Various
- **Read range on metal** 10 ft (3.05 m) on ETSI and FCC bands
- **Polarization** Linear



Key Features

- 10 ft (3.05 m) on ETSI and FCC bands read range on metal surfaces
- Unique inlay design obtains excellent read range regardless of surface - metal, plastic or even wood
- Subsurface printing on durable polyester protects printed copy against moderate solvents/acids
- Digital printing process provides greater print capabilities with detailed logos or special designs

Applications

- Asset Tracking
- Work-in-Process
- Tool Tracking

Recommended Thermal Transfer Ribbons (On-site Printable Version Only)

Wax/Resin:

- DNP TRX-50 (Metalcraft Part # MISC1034-3.000)

Full Resin:

- DNP V300 (Metalcraft Part #MISC1033-2.620 and MISC1033-4.330)
- DNP TR4070(Metalcraft Part # MISC1015-3.150 and others)

Environmental Specifications

- **Minimum Application Temperature:** +50 °F (10 °C)
- **Temperature Range:** -40 °F to 175 °F (-40 to 79.4 °C) - limited by black foam
- **UV Resistance:** Recommend indoor use only
- **Chemical Resistance:** Good resistance to mild to moderate cleaning chemicals, very good resistance to solvents, fuels and oils.
- **Minimum bend radius:** 3" (76.2 mm when wrapped around curved surface)

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.

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On-site Printable version is AS5678B Certified to aircraft interior category (Flammability Test Exempt). Passed RTCA DO-160 Section 4.5.1 Ground survival low temperature and short time operating temperature test (Category A1) and RTCA DO-160 Section 6.3 humidity tests (Category A).

Chemical Soak Test: Summarizes if tag survived soaking in fluids noted below for 2 hours in room temperature conditions without falling apart and the inlay still responding. Note: Thermal transfer print results are dependent on the type of ribbon used. A full resin ribbon is recommended for maximum durability.

Product	Water	Glass Cleaner	Bathroom Cleaner	99% Isopropyl Alcohol	Acetone	Sodium Hydroxide	Nitric Acid	Hydrochloric Acid	Brake Fluid	Diesel
Global Universal RFID Tag	NE	NE	NE	NE	NR	NE	NE	NE	NE	NE

Key: NE = No Effect, NR = Not Recommended

Temperature Resistance: Note - Inlay may stop responding above 185 °F (85 °C) or below -40 °F (-40 °C); will need to bring tag within this temperature range for proper operation.

Product	-40 °F (-40 °C) 24 hours	200 °F (93.3 °C) Continuous	250 °F (121.1 °C) 1 Hour	300 °F (148.9 °C) 1 Hour
Global Universal RFID Tag	NE	NE	NE	NR

Outdoor Exposure: Test Method - ASTM D4329 using QUV Weatherometer. Test consisted of 8 hours of UV exposure with UVA-340 lamps followed by 8 hours of condensation. Test determines if tag materials survive exposure without yellowing or cracking, and verify that the inlay still reads.

Product	2,000 Hours of Exposure
Global Universal RFID Tag	NE

Key: NE = No Effect

Installation Instructions

- 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.
- Handle the tag by edges, peel release liner from back ensuring not to touch the back of the adhesive.
- Place the tag in desired tagging location and firmly apply even pressure to the tag for 5 seconds.
- Do not disturb the newly mounted tag for at least 72 hours to ensure proper adhesive sealing.

Industry Compliance



intertek

