DuraDestruct RFID Tags - Plastic

DuraDestruct RFID Security Tag's specialized construction eliminates the transferability of the RFID tag and incorporates two levels of destructibility. If someone attempts to remove the tag the RFID antenna construction breaks into separate pieces making the read range of the tag mere inches. The portion that is still adhered to will literally disintegrate if an attempt is made to remove it from the object.

Features	Ideal for security and tamper proof RFID applications Deters transferability as tag is rendered useless upon removal Provides additional levels of security for RFID anti theft and RFID protection systems Perfect for plastic bins, totes, tubs and crates Read range up to 40’ on plastic Custom printing available Patented product design 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 . UV/Outdoor Durability
Popular Applications	Bins/Crates/Totes . Non-metal surfaces . Returnable containers . Security applications
Category	Warehouse - RFID . Asset Tracking - RFID . RFID for Plastic Surfaces

METAL CRAFT
ID MADE BETTER

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UNIVERSAL RFID BY METAL CRAFT

Specifications Data

Material	Polyester
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	Worldwide UHF RFID Operation (840 – 960 MHz)
Sizes	4" x 1"
Packaging	Produced and shipped in roll form

Chemical Testing

Samples applied to glass panels, allowed to wet out for 72 hours, immersed in chemicals below at ambient room temperature conditions. Inlays in all samples still reading after 48 hours of exposure. Key: NE = No effect; AO = adhesive ooze; PE = print erosion under laminate

Chemical Test Data

	Water	Salt Water 5% NaCl	Bathroom Cleaner	Glass Cleaner Windex Commercial Line	Isopropanol 99%	Brake Fluid DOT 3	Acetone	Diesel Fuel	Nitric Acid pH 1.0 =/- 0.01	Hydrochloric Acid pH 1.0 =/- 0.01	Sodium Hydroxide pH 12.0 =/- 0.01
2 hours	NE	NE	NE	NE	AO	AO	AO	AO	NE	NE	NE
24 hours	NE	NE	NE	NE	AO	AO	AO	AO	NE	NE	NE
48 hours	NE	NE	NE	PE	AO	AO	AO	AO	NE	NE	NE

Destructive Testing

Destructive Test Data

Temperature Testing

Samples applied to glass panels at ambient room temperature conditions, sit for 72 hours, then placed in freezer set to -40F for 24 hours. All inlays reading prior to removal from the freezer, all tags still destructible prior to removal from the freezer. Samples then exposed to each temperature noted below for 1 hour. All tags still destructible while at 200F. Inlays quit reading after exposure to 400F. Key: NE = no effect; TD = Sample materials discolored; TP = Sample print degradation; TM = Tag melted/destroyed; SS = sample shrinking; adhesive ooze at edges

Temperature Test Data

200°	250°	300°	350°	400°	450°	500°
NE	NE	NE	SS	TD, SS	TP, TD, SS	TM

Read Range Testing

Read Range Test Data

DuraDestruct Voyanic Anechoic Chamber test results

Substrate	ETSI	FCC
Windshield glass	28.68	34.7
Tempered glass	27	30.25
Polypropylene	45.98	40.36
HDPE	37.5	50.5
Wood	30.5	29.5
Corrugated Paper	42.5	47.5

Barcode Readibility Testing

Barcode Readability Test Data

Abrasion Testing

Abrasion Test Data

Label Adhesion Testing

Label Adhesion Test Data

Pull Testing

Pull Test Data