

DuraDestruct Security RFID Tags - Plastic



This patent pending product combines the durability of our standard RFID tag with destructible features that render the label useless if it is removed or tampered with. Its 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. If a person tries to reassemble the tag to make it functional, the portion that is still adhered 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
Patent pending product

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

RFID Pallet Tags . RFID Tags . Tamper Proof

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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)
Size	4" x 1"
Packaging	Produced and shipped in roll form
Shipment	14 business days

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

	DI Water	Salt Water 5% NaCl	Bathroom Cleaner Betco AF79	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

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 Voyantic 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	50.50
Wood	30.5	29.5
Corrugated Paper	42.5	47.5
Metal	0	0

Abrasion Testing

Tags survived 6,000 revolutions on Taber Abrader with CS-10 wheels, 1000g total load.