



High Temperature Foam Backed RFID Tag

High Temperature • RFID Product

Technical Data Sheet

Part: #WF- SM-0033

General Description

High Temperature Foam Backed RFID Tag



For high temperature metal mount applications, this High Heat Foam- Backed RFID Tag provides a cost effective alternative to higher priced RFID- metal mount tag in tracking and identifying parts through industrial high temperature finishing processes such as drying, curing, paint or powder coating lines. Reads well on metal and is heat resistant up to 400°F.

Customizable:

Any specification can be customized for your application. The tag above shown with a UHF Gen2 Global inlay, customizable with printed barcode information, serial numbers, corporate logos, message, size and thickness of foam. The sturdy label face is backed with foam and an aggressive permanent adhesive. This RFID tag will read directly on metal.

- High Heat Application: Up to 400°F
- Customizable with different inlays, print and size
- Available Pre- Printed & Encoded or Blank
- Enhanced RFID Read Performance (based on thickness of foam)
- Optional serialization with barcodes

Applications

Work in Process Tracking, Paint Line Asset Tracking, High Temperature, Harsh Environments, Metal Mount

Material Description

Custom messaging available

High Temperature Resistant Multi- Layered Label

Overall Thickness:	2.0 mil Polyester Face; 0.125" or 0.25" Foam Base (or Customize)
Sizes:	2.5" x 1.0" (Available in other various sizes)
Minimum Application Temperature:	50°F (Ideal temperature: 70° F-100° F)
Service Temperature:	-40° F to 400°F (indefinitely); 500° F (7 min.)
Available Colors:	White
Outdoor Life:	Excellent
Water Resistant:	Very Good
Oil Resistant:	Very Good
Solvent Resistant:	Excellent
UV- Resistant:	Excellent
Abrasion Resistant:	Good

RFID Performance

RFID Protocol:	UHF EPC Class 1 Generation 2, ISO/ IEC 18000-6C compliant
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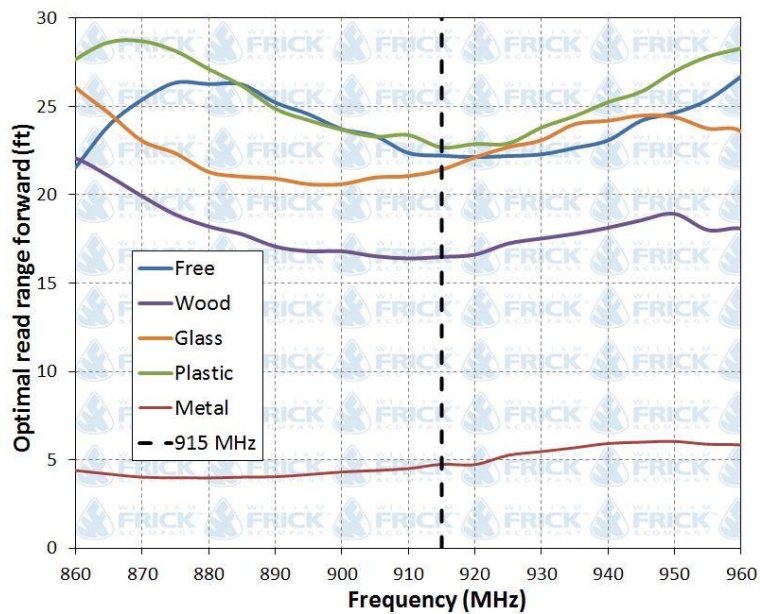
Tag Type:	Passive Read/ Write
IC:	Higgs 3
Frequency Range:	840 ~ 960 MHz (Global)
User Memory	512- bit

Tested Polarization:

Tag performance was experimentally measured in an anechoic chamber and a known set of experimental variables. The antenna used for measurements was linearly polarized and of monostatic configuration. The direction of tested polarization is as follows.



Optimal Read Range* on Different Material Surfaces:



*Tag performance was measured free of material influence, on a dry wood, window glass, thermoplastic, and steel slabs. Actual read ranges may differ depending on conditions such as environment, tag placements, hardware, etc.

Adhesive

High Temperature Aggressive Solvent- Resistant Adhesive

Available in other types of adhesives

Aggressive solvent- resistant adhesive, up to 400° F

Adhesive Type:	Acrylic
Thickness:	10 mil
Linear Thickness:	0.35mm
Minimum Application Temperature:	50°F (Ideal temperature: 70° F-100° F)
Adhesion to Stainless Steel at 72 hr. dwell:	Excellent
Adhesion to Glass:	Excellent
Adhesion to LSE Plastic	Fair
Adhesion to HSE Plastic	Very Good

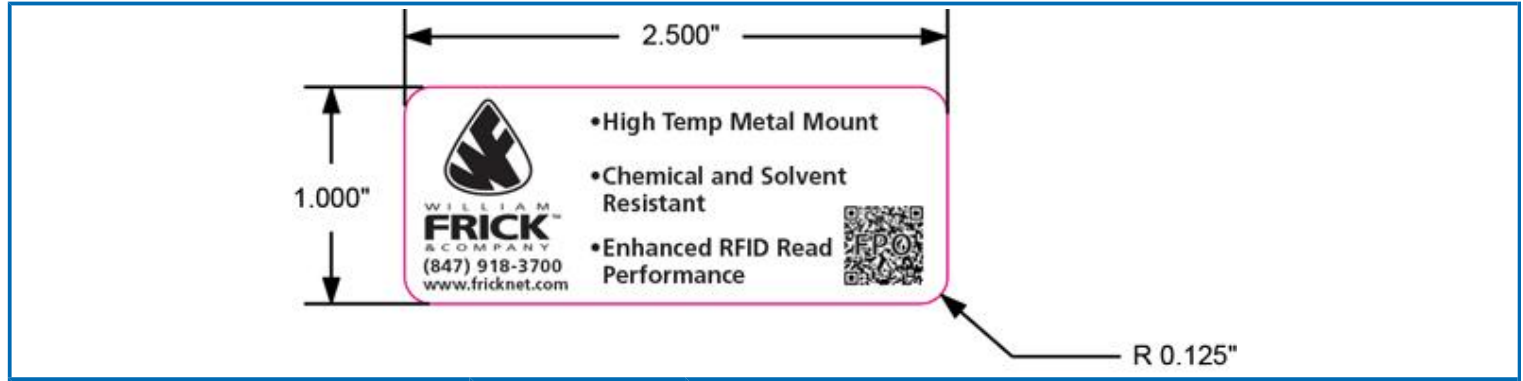
Test product for system compatibility as individual application conditions can impact results. William Frick Co. does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or any final product into which the product(s) may be incorporated by the purchaser and/ or user. The purchaser and/ or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.



Shelf life

Stored at 70°F (21°C) / 50% Relative Humidity

2 years



<p>ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED</p> <p>TOLERANCES</p> <p>3 PLACE DECIMAL + OR-.005"</p> <p>2 PLACE DECIMAL + OR-.02"</p> <p>1 PLACE DECIMAL + OR-.1"</p> <p>MAX SURFACE ROUGHNESS</p> <p>ALL MACHINED SURFACES EXCEPT AS NOTIFIED</p> <p>BREAK SHARP EDGES AND CORNERS .010" MAX</p>	Contact No.	William Frick & Co.			www.fricknet.com
	DWG.	High Temperature Foam Backed RFID Tag			
	Engr.				
	Chk.				
	Aprvd.	Size.	DWG No. WF- SM-0033	Rev.	

Test product for system compatibility as individual application conditions can impact results. William Frick Co. does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or any final product into which the product(s) may be incorporated by the purchaser and/ or user. The purchaser and/ or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.



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