

VERIFICATION OF SHIELDING EFFECTIVENESS

Report No. 25060281HKG-001

Test Sample:	RFID blocking fabric material
Tested for:	ASTM D4935
Product name:	RFID BLOCKING FOIL
Product model:	F 0121
Date of Issue:	June 26, 2025

VERIFICATION SUMMARY

Company name:	PRECOLLEE
Address of the Company:	245/3A VADAMALAI GOUNDER NAGAR THIRUNAGAR ROAD VANUR PUTHURAI, VILLUPURAM TAMILNADU 605111
Contact information of Applicant:	HARIHARAN
Tel:	+91 8344456565
Fax:	--
Email	ragothaman@precollee.com
Product Description:	RFID Foll
Product Name:	RFID BLOCKING FOIL
Product Model:	F 0121
Relevant Standards / Specifications / Directives:	--
Date of Test(s):	
<input checked="" type="checkbox"/> 1 st TEST	20 June, 2025
<input type="checkbox"/> 2 nd TEST (after modification)	--
Verification Issuing Office:	
Test Report Number:	25060281HKG-001

Note: This verification is part of the full test report(s) and should be read in conjunction with them.

Prepared and Checked by:

Signed On File
Angus Tong
Assistant Engineer

Approved by:

Chan Hosea
Assistant Supervisor
Date: 26 June, 2025

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1. INTRODUCTION

Electromagnetic interference (EMI) is pretty much everywhere in the modern world. EMI comes from external signals that reach an electronic device and interfere with the device's signals. It can impact all kinds of functions, rendering some devices completely useless.

Hundreds of thousands of devices rely on the ability to send and receive electromagnetic signals without interruption, so engineers had to come up with a solution. That solution is called EMI shielding. It's the principle of designing devices to contain materials and objects that protect against interference from external electromagnetic signals.

Shielding can be specified in terms of reduction in the magnetic (and electric) field or plane-wave strength caused by shielding. The effectiveness of a shield and its resulting EMI attenuation is based on the frequency, the distance of the shield from the source, the thickness of the shield, and the shield material. Shielding effectiveness (SE) is normally expressed in decibels (dB) as a function of the logarithm of the ratio of the incident and exit electric (E), magnetic (H), or plane-wave field intensities $SE(dB)=20\log(E0/E1)$, $SE(dB)=20\log(H0/H1)$, and $SE(dB)=20\log(F0/F1)$ respectively.

2. TEST SAMPLE DESCRIPTION

The electromagnetically RFID-blocking fabric test sample is designed to protect humans against EMI.

Tested for	ASTM D4935-18 shielding effectiveness
Product name	RFID BLOCKING FOIL
Product model	F 0121

3. MEASUREMENT EQUIPMENT LIST

<i>Equipment</i>	<i>Model</i>	<i>Manufacturer</i>
Spectrum Analyzer	FSP30	Rhode & Schwarz
Signal Generator	SMU200A	Rhode & Schwarz

4. TEST METHOD AND RESULTS

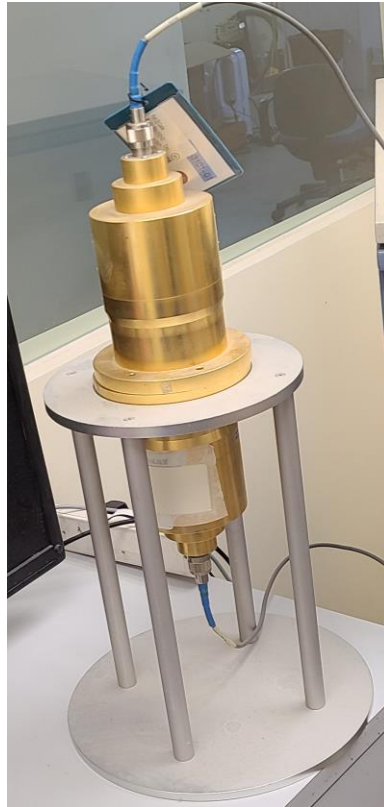
According to ASTM D4935

4.1 Test Result

Shielding effectiveness test result within 0.125 MHz to 3 GHz

Measured Frequency (MHz)	Shielding Effectiveness (dB)
0.125	19.2
13.56	68.4
30	74.5
100	78.6
200	77.4
300	75.3
400	77.4
500	78.0
600	77.4
700	77.3
800	76.9
900	76.5
915	76.4
1000	76.1
1100	76.5
1200	76.1
1300	75.6
1400	75.6
1500	75.3
3000	70.6

4.1.1 Test Setup

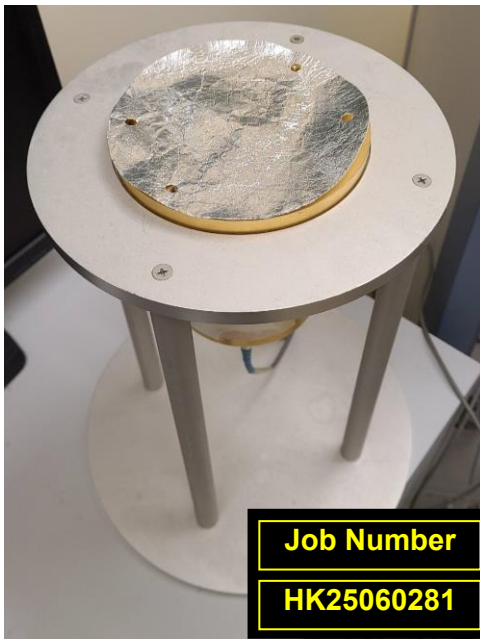


5. PHOTOGRAPH

5.1 Test Sample



Reference sample



Testing sample

***** End of Report *****