

*Handwritten signature and date: 10/13*



**PHYSICAL CARD TEST REPORT  
REPORT PRODUCED FOR JOB Q29924  
SET 10**

**TO: AMERICO RODRIGUEZ  
JUNTA CENTRAL ELECTORAL  
AV 27 DE FEBRERO ESQ LUPERON  
ZONA INDUSTRIAL DE HERRERA  
SANTO DOMINGO, 11113  
DOMINICA**

**TEST COMPLETED BY ANDREW VONEIDA September 27, 2013  
REPORT COMPLETED BY TERRY SCHINDLER October 7, 2013**

**Q-CARD Laboratories  
301 Reagan St.  
Sunbury, PA 17801  
570-286-7447  
[www.q-card.com](http://www.q-card.com)**

Q-CARD completed testing of cards received on August 30, 2013, against an order for nine (9) different tests. The cards were received in new condition. Cards were labeled and identified for each test by Q-CARD. All of the data in this test report pertains to the tests that were ordered.

**BLANK WHITE CARDS**

**Test No. 1**

**CARD TESTING FOR ID-1 CARD FLEXURE**

Per ANSI/INCITS 322:2008, Section 5.4

Card ID#	Axis	Side of Flex Extension	ANSI 440 Glass	Credit Card Durability
Card STOP	B	Front Side Up	D5	Pass

**PRINTED CARDS - BACK**

**Test No. 2**

**CARD TESTING FOR SURFACE ABRASION**

Per ANSI/INCITS 322-2008, Section 5.9

Card ID#	Stop Cycles	ANSI 440 CLASS
Card STOP	5000	D5

**Test No. 3**

**CARD TESTING FOR DELAMINATION CROSS HATCH TAPE**

Per ANSI/INCITS 322:2008, Section 5.3

Card ID#	Scale Rating	Rating Meaning	
Card STOP	5	No Adhesion	Pass

**Test No. 4**

**CARD TESTING FOR DAYLIGHT EXPOSURE IMAGE STABILITY-XENON ARC**

Per ANSI/INCITS 322:2008, Section 5.16

Card ID#	Side Exposed	Observation	Result
Card STOP	Back	No Change	Pass

**PRINTED CARDS - FRONT**

**Test No. 5**  
**CARD TESTING FOR SURFACE ABRASION**  
 Per ANSI/INCITS 322-2008, Section 5.9

Card ID#	Stop Cycles	ANSI 449 CLASS
Card 510P	5000	D5

*Handwritten:*  
 2  
 10/10/13  
 [Signature]

**Test No. 6**  
**CARD TESTING FOR DELAMINATION - 90°**  
 Per ANSI/INCITS 322-2008, Section 5.2

Card ID#	F <sub>1</sub> Minimum Peel Force 32N/mm	Side Front/Back
	Card 510P	Pass

**Test No. 7**  
**CARD TESTING FOR DELAMINATION CROSS HATCH TAPE**  
 Per ANSI/INCITS 322:2008, Section 5.3

Card ID#	Scale Rating	Peeling Bleeding	
Card 510P	5	No Adhesion	Pass

**Test No. 8**  
**CARD TESTING FOR DAYLIGHT EXPOSURE IMAGE STABILITY-XENON ARC**  
 Per ANSI/INCITS 322:2008, Section 5.16

Card ID#	Side Exposed	Observation	Result
Card 510P	Front	No Change	Pass

**Test No. 9**  
**CARD TESTING FOR CORNER IMPACT RESISTANCE**  
 Per ANSI/INCITS 322:2008, Section 5.20

Card ID#	CORNER A	CORNER B	CORNER C	CORNER D	Visual Note
Card 510P	N/A	N/A	Fail	Fail	Broke/Delamination

## Executive Summary

Tests that should be reviewed for failure assessment would be mentioned in this summary and all tests that passed 100% of the test requirements are not mentioned here. The test data for each test may be comprehensively reviewed in Annex A of this test report.

Test No. 1, card testing card flexure, indicates that the card body durability category is D5. It is my opinion the card body should be suitable for card usage applications with service life up to 10 years.

Test No. 9, card testing for corner impact resistance, indicates that two (2) out of two (2) corners tested broke and delaminated with corner impact. This test was conducted as a sequence following Xenon arc exposure. Xenon arc exposure was applied before corner impact to accelerate the aging of plastic cards. I think this test could indicate that the card body becomes brittle with age and the test could indicate laminate adhesion might weaken with age.

Thank you for using Q-CARD test laboratory services.

Sincerely,

Terry Schindler  
Vice President – Technology Group  
Q-Card Laboratories  
301 Reagan Street  
Sunbury, PA 17801  
570-286-7447 or Mobile 570-847-4011  
[t.schindler@brush-qcard.com](mailto:t.schindler@brush-qcard.com)  
[www.q-card.com](http://www.q-card.com)

*Handwritten signature and date: 11/1/13*

# ANNEX A

## PRINTED DATA ARCHIVE

Customer Name:

Job #: Q29924-SET10

Card Testing for ID-1 Card Flexure

Sampled By: ADV  
 # of Samples Tested: 1  
 Technician: ADV  
 Time: 7:45 AM  
 Date: 9/16/2013  
 Temperature: 21.9 C  
 Relative Humidity: 48%

Samples Preconditioned:   
 Calibration Verified:

Valid Until: 2/14

Job Notes:

Card ID#	Axis	Side of Flex Evaluation	Cycle to Break	Length of Fracture (mm)	Description of Fracture	ANSI 440 Class
Card S10V	B	Front Side Up	>100,000	N/A	Pass	D5

Job #: Q29924-SET10 Customer Name: Junta Central Electoral

### Card Testing for Surface Abrasion (Backside)

Sampled By: ADV  
# of Samples Tested: 1  
Technician: ADV  
Time: 12:30 PM  
Date: 9/13/2013  
Temperature: 22.9 C  
Relative Humidity: 45%

Calibration Verified:  Valid Until: 3/14

Card ID#	Step Cycles	ANSI 440 CLASS
Card \$10P	5000	D5

Job Notes:

*Handwritten signature and date: 9/13/13*

Revision 2.0  
5/20/2013

The test results herein relate only to the items tested.  
The test report shall not be reproduced, except in full, without written approval of Q-Card Laboratories.

Job #: Q29924-SET10  
Customer Name: Junta

### Card Testing for Crosshatch Delamination (Backside)

# of Samples Tested: 1  
Technician: CNJ  
Time: 11:30 AM  
Date: 9/16/2013  
Temperature: 22.9 C  
Relative Humidity: 46%

Card ID#	Scale Rating	Rating Meaning
Card S10P	5	No Adhesion Pass

Job Notes:



Job #: Q29924-SET10

### Card Testing for Xenon Arc Test Log (Backside)

Sampled By: ADV  
 # of Samples Tested: 1  
 Technician: ADV  
 Time: 7:50 AM  
 Date: 9/24/2013  
 Temperature: 22.1 C  
 Relative Humidity: 44%

Pre-Test Visual Inspection:  
Pass

Post-Test Visual Inspection:  
Pass

X

Samples Preconditioned

Card ID#	Pre-Test Visual Defects?	Card ID#	Post-Test Visual Defects?
Card \$10P	No Defects	Card \$10P	No Defects

Job Notes

Card High Resolution Images Pre/Post

X

.96 W/m2 @ 420 nm  
 168 Hour exposure time.

*[Handwritten signature]*  
 9/24/13

Customer Name: Junta Cental Electoral

Job #: Q29924-SET10

### Card Testing for Surface Abrasion - Front

Sampled By: ADV  
# of Samples Tested: 1  
Technician: ADV  
Time: 7:05 AM  
Date: 9/12/2013  
Temperature: 22.5 C  
Relative Humidity: 47%

Calibration Verified:  Valid Until: 3/14

Card ID#	Stop Cycles	ANSI A40 CLASS
Card #10P	5000	D5

Job Notes:

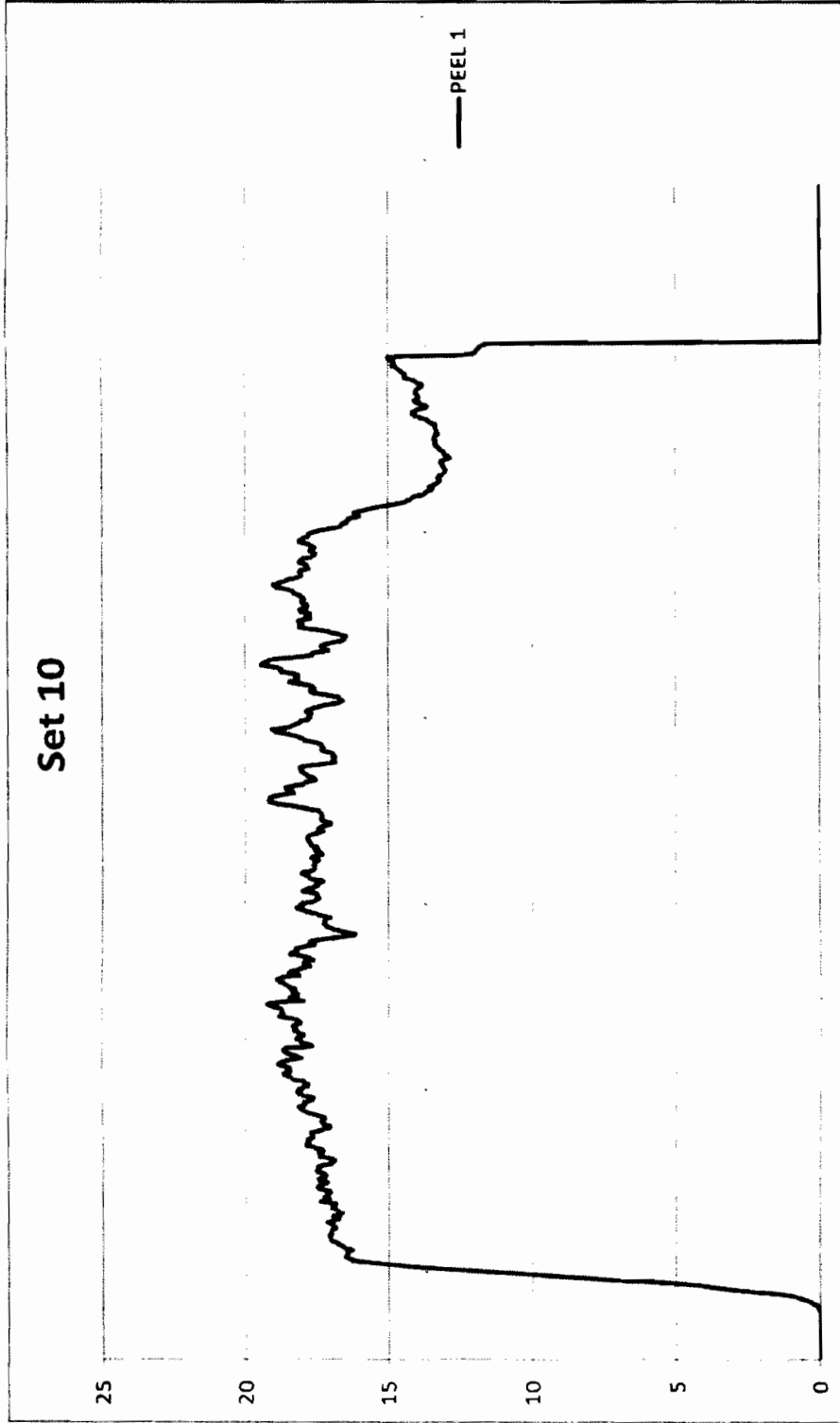
Card Testing for Peel Strength (Front)

Card ID#	P1	Blank Front/Back
Card S10P	Minimum Peel Force 35N/mm	1.293
		Front

Sampled By: ADV  
 # of Samples Tested: 1  
 Technician: ADV  
 Time: 12:30 AM  
 Date: 9/17/2013  
 Temperature: 22.7 C  
 Relative Humidity: 44%  
 Calibration Verified:  Valid Until: 6/14  
 Samples Preconditioned:

Job Notes:

*Handwritten signature and date: 9/10/13*



Job #: Q29924-SET10 Customer Name: Junta

### Card Testing for Crosshatch Delamination (Front)

Card ID#	Cross Hatch Rating	Rating Meaning
Card #100	5	No Adhesion Pass

# of Samples Tested: 1  
Technician: CNJ  
Time: 11:30 AM  
Date: 9/16/2013  
Temperature: 22.9 C  
Relative Humidity: 46%

Job Notes:

*Handwritten:*  
3  
310/30/13  
[Signature]

Job #: Q29924-SET10

Customer Name: Junta Central Electoral

**Card Testing for Xenon Arc Test Log (Frontside)**

Sampled By: ADV  
 # of Samples Tested: 1  
 Technician: ADV  
 Time: 3:10 PM  
 Date: 10/1/2013  
 Temperature: 24.7 C  
 Relative Humidity: 49%

Pre-Test Visual Inspection: Pass  
 Post-Test Visual Inspection: Pass

x

Samples Preconditioned

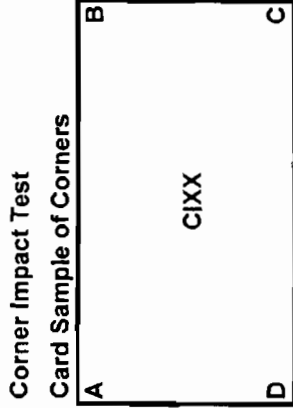
Card ID#	Pre-Test Visual Defects?	Card ID#	Post-Test Visual Defects?
Card S10P	No Defects	Card S10P	No Defects

Job Notes

Card High Resolution Images Pre/Post  X  
 .96 W/m2 @ 420 nm  
 168 Hour exposure time.

Job #: Q29924-SET10 Customer Name: \_\_\_\_\_

**Card Testing for Corner Impact**



# of Samples Tested: 1  
 Technician: ADV  
 Time: 10:10 AM  
 Date: 10/2/2013  
 Temperature: 22.6 C  
 Relative Humidity: 50%

Samples Preconditioned

Card ID#	CORNER A	CORNER B	CORNER C	CORNER D	Visual Note
Card \$10P	N/A	N/A	Fail	Fail	Broke/Delamination

Job Notes:

*Handwritten signature and date: 10/2/13*

**END PAGE**