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PHYSICAL CARD TEST REPORT
REPORT PRODUCED FOR JOB Q29924
SET 3
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

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 Class	Credit Card Durability
Card 53V	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 53P	1250	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 53P	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 53P	Back	Slight Yellowing	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 440 CLASS
Card 53P	5000	D5

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

Card ID#	P1	Side Front/Back
	Minimum Peel Force 35N/mm	
Card 53P	Pass	Front

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

Card ID#	Scale Rating	Rating Meaning	
Card 53P	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 53P	Front	Slight Yellowing	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 53P	N/A	N/A	Fail	Fail	Broke/Delamination

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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 have broken layers and had multiple layer delamination on 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 multiple card body lamination bonds could become weak 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
www.q-card.com

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ANNEX A

PRINTED DATA ARCHIVE

Customer Name:

Job #: Q29924-SET3

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: X
 Calibration Verified: X

Valid Until: 2/14

Job Notes:

Card ID#	Axis	Sides of Flex Extension	Cycle to Break	Length of Fracture (mm)	Description of Fracture	ANSI 440 Class
Card S3V	B	Front Side Up	>100,000	N/A	Pass	D5

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-SET3 Customer Name: Junta Cental Electoral

Card Testing for Surface Abrasion (Backside)

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

Card ID#	ANSI 440 CLASS
Card S/P	1250 D5

Calibration Verified: Valid Until: 3/14

Job Notes:

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Revision 2.0
5/20/2013

The test results herein relate only to the items tested.
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Job #: Q29924-SET3 Customer Name: Junta

Card Testing for Crosshatch Delamination

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 S3P	5	No Adhesion Pass

Job Notes:

Job #: Q29924-SET3

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 S3P	No Defects	Card S3P	Slight Yellowing

Job Notes

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

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Job #: Q29924-SET3

Customer Name: Junta Central Electoral

Card Testing for Surface Abrasion - Front

Sampled By: ADV

of Samples Tested: 1

Technician: ADV

Time: 2:30 PM

Date: 9/10/2013

Temperature: 25.1 C

Relative Humidity: 45%

Calibration Verified: Valid Until: 3/14

Card ID#	Stop Cycles	AV5040 CLASS
Card S1P	5000	D5

Job Notes:

The test results herein relate only to the items tested.
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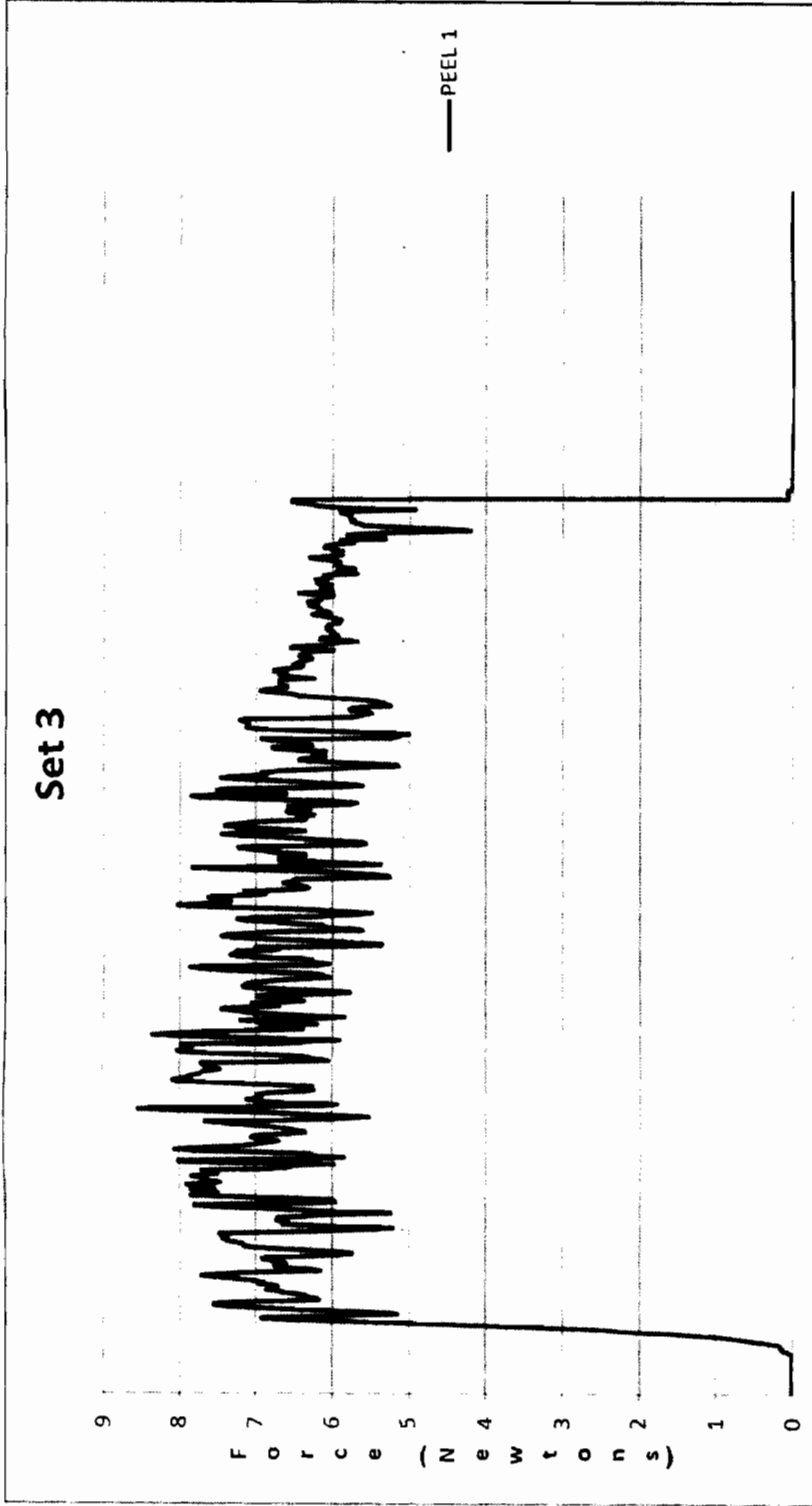
Card Testing for Peel Strength (Front)

Card ID#	P1	Min. Force	0.639	Front
Card SSP	Minimum Peel Force	.35N/mm		

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:

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Job #: Q29924 Customer Name: Junta

Card Testing for Crosshatch Delamination (Front)

Card ID#	Scale Rating	Rating Meaning
Card 33P	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:

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

Samples Preconditioned

Card ID#	Pre-Test Visual Defects?	Card ID#	Post-Test Visual Defects?
Card SSP	No Defects	Card SSP	Slight Yellowing

Job Notes

Card High Resolution Images Pre/Post

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

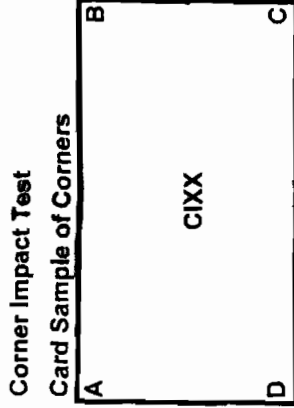
Job #: Q29924-SET3

Customer Name: Junta Central Electoral

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 S3P	N/A	N/A	Fail	Fail	Broke/Delamination

Job Notes:

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