



<b>Card Testing International Ltd</b>		<b>Client Number 8916</b>	
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		<b>www.cardtest.com</b>	
<b>Authorised Representative</b>			
Mr Steve DeDera Chief Technology Officer			
<b>Programme</b>			
Mechanical Testing Laboratory			
<b>Accreditation Number 1075</b>		<b>Initial Accreditation Date 28 August 2012</b>	
<b>Conformance Standard</b>			
ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories			
<b>Laboratory Services Summary</b>			
4.45		Commercial Items	
<b>Key Technical Personnel</b>			
Mr Steve DeDera		4.45	
Mr Daniel Passmore		4.45	

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Card Testing International Ltd  
 Mechanical Testing Laboratory  
**SCOPE OF ACCREDITATION**

Accreditation Number 1075

**4.45 Commercial Items**

**(a) Card Testing**


**The following tests on Identification Cards in accordance with ISO/IEC 10373-1: Test Methods Part 1, General characteristics**

- Section 5.1 Card warpage
- Section 5.2 Dimension of cards
- Section 5.3 Peel strength
- Section 5.5 Resistance to chemicals
- Section 5.6 Card dimensional stability and warpage with temperature and humidity
- Section 5.7 Adhesion or blocking
- Section 5.8 Bending stiffness
- Section 5.9 Dynamic bending stress
- Section 5.10 Dynamic torsional stress
- Section 5.11 Opacity
- Section 5.14 Resistance to heat
- Section 5.15 Surface distortions, raised areas and depressed areas
- Section 6.3 Dimensions and locations of contacts for ICCs with contacts
- Section 6.5 ESD – Electrostatic discharge for ICC contact cards
- Section 6.6 ESD – Electrostatic stress for PICC and VICC
- Section 6.7 Electrical resistance of contacts of ICCs with contacts
- Section 6.9 Surface profile of contacts of ICCs with contacts
- Section 6.10 ICC – Mechanical strength: 3 wheel test for ICCs with contacts

**The following tests on Identification Cards in accordance with Mastercard CQM Test Methods**

- #8010# Relative height of contacts
- #8020# Dimension and location of contacts
- #8030# Width and height
- #8040# Card Thickness outside Contacts, Embossed Areas and Add-on Areas [IS10373-1]
- #8050# Thickness within Add-on Areas [IS10373-1]
- #8080# Bending stiffness
- #8100# Overall card warpage
- #8110# Resistance to heat
- #8130# Adhesion or blocking
- #8140# Dynamic bending stress
- #8150# Dynamic torsional stress
- #8200# Opacity
- #8210# 3 wheel test

**The following tests on Identification Cards in accordance with ISO/IEC 10373-2: Test Methods Part 2, Cards with magnetic stripes**

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- Section 5.2 Height and surface profile of the magnetic stripe
- Section 5.3 Surface roughness of the magnetic stripe
- Section 5.5 Amplitude measurements
- Section 5.6 Flux transition spacing variation
- Section 5.9 Waveform U<sub>i6</sub>

**The following test on Identification Cards in accordance with ISO/IEC 24789-2 Part 2, Methods of evaluation**

- Section 5.2 Surface abrasion
- Section 5.3 Magnetic stripe abrasion
- Section 5.4 ICM Adhesion
- Section 5.7 Temperature and humidity aging
- Section 5.8 Temperature shock
- Section 5.9 Temperature and humidity cycling
- Section 5.10 ID-1 card flexure
- Section 5.11 Temperature and humidity aging followed by peel strength testing

**The following tests on Identification Cards in accordance with ANSI INCITS 322: Card Durability Test Methods**

- Section 5.3 ID-1 Card flexure
- Section 5.8 Surface abrasion
- Section 5.10 Magnetic stripe abrasion
- Section 5.21 IC Card with contacts micromodule adhesion

**The following tests on Identification Cards in accordance with In-house methods based on ISO/IEC 7811-1**


Measured Embossing Location

**The following tests on Identification Cards in accordance with In-house methods based on ISO/IEC 7811-6**

Magnetic stripe encoded track location (measured)

**The following tests on Identification Cards in accordance with In-house methods based on ISO/IEC 7816-1 (4.3)**

Mechanical strength of contacts

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