

## Card Service Life

Are your cards fit for purpose? Will they last until their expiry date?  
Card Testing International can help you find out!

*You don't want this to happen...*



Together we determine an  
**Application Profile:**

*Storage, Terminal, Technology,  
Environment, Frequency of use,  
Issuance period*



CTI Performs  
**Durability Tests**



Aiming to enhance  
**End User Experience**



Contact us today, so we can develop a program for your cards!

For more information, please see overleaf...

# Card Service Life – ISO/IEC 24789

## Overview

Often a subject of discussion with Issuers, is how long a card is likely to last once it's issued. The Card Service Life Standard offers an evaluation regime suited to the card technology & application a card is intended to be used in. Put simply, the Standard aims to answer the question, "is the card fit for purpose?" Card Testing International provides testing campaigns using this framework, in order to see how your cards measure up against current card industry expectations.

### Part 1: Card Service Life Application Profiles & Requirements (ISO/IEC 24789-1)

CTI consider the following factors specific to your card product:

- Technology present on the card (Magnetic Stripe, Contact IC, Contactless IC etc.)
- Environmental conditions that the card will be used in
- How the card is stored between uses
- The type of card reader likely to be encountered
- Frequency of use
- Period of issue

This information assists us in calculating the 'Application Profile' specific to your cards. This consists of an 'Aging' & 'Usage' component. The more arduous the Application Profile is, the harsher the evaluation regime imposed upon the card is.

### Part 2: Methods of Evaluation (ISO/IEC 24789-2)

This part of the Standard details the Test Methodology used in the Evaluation Regimes derived in the first part of the Standard. Several tests are taken from ISO/IEC 7810 (Physical Characteristics) & use their corresponding Test Methods found in ISO/IEC 10373-1. There are also areas served specific to Magnetic Stripe, Contact and Contactless IC cards found in ISO/IEC 7811, 7816-1 & 14443-1 respectively.

There are two evaluation approaches used:

'Stand Alone' Methods for non-embossed cards that don't contain an IC, where the Aging Class is low:

- Card Flexure, Temperature & Humidity Exposure Followed By Peel Strength, Mag Stripe Abrasion & Surface (Feature) Abrasion

Evaluation Sequences for IC cards with/without embossing with a medium to high Aging Class:

- A simulated Service Life is first applied:
  - 'Aging' Simulation – Temperature & Humidity exposure
  - 'Usage' Simulation – Physical challenge e.g. Dynamic Bending Stress

Evaluation Sequences are then followed by a suite of tests suited to the technologies present on the card. More rigorous Application Profiles require several cycles of the above Simulated Service Life, before then going on to perform the actual tests establishing conformity to the Standard.

*Are **your** card products fit for their intended use, and will they last their period of issuance?  
CTI welcomes the opportunity to learn more about your cards, and offering an evaluation regime to suit. Please contact us at [sales@cardtest.com](mailto:sales@cardtest.com) or +64 4903 4991*