



# CoreLam®



**CoreLam®** range of product is a wide family of inlays for contactless smartcards, meeting customer requirements in line with the identity and banking markets.

A versatile inlay compliant with various outer layer materials and ASK patented contactless technology constitute the best features describing the CoreLam® products.



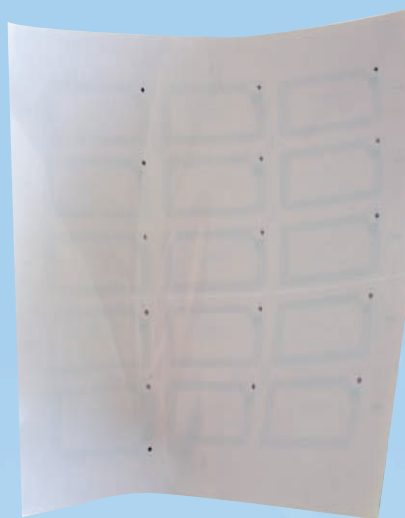
## Laminated inlays for contactless smartcards

### Main features

- Laminated inlays with chip & antenna
- Versatile inlay compliant with PVC, PETG, PETF (Melinex®) or Polycarbonate materials
- For long lasting cards, able to withstand 100,000 ISO bending cycles
- Benefit of the ASK patented contactless technology
- Produced in a MasterCard certified site

### Application for card manufacturing

- Compliant with banking card embossing (PayPass, VisaWave)
- Mifare® transit card
- ID card, driving licence, healthcare card
- Polycarbonate card
- UHF long range card



## Performances

Benefits include:

- Thin inlays (<350 µm)
- Resistance to bending up to 100,000 cycles
- Module free technology simplifies the logistic flow of card manufacturer

## Versatility

CoreLam<sup>®</sup> structure is a multi-layered construction made of long lasting materials. CoreLam<sup>®</sup> can easily be laminated with various outer layers such as PVC, PETG, PETF Melinex<sup>®</sup>. It provides reliable solution for Teslin<sup>®</sup> card and polycarbonate that are required for the demanding identity market (ID card and passport). The same type of CoreLam<sup>®</sup> can accept different outer layers, ensuring versatility and effectiveness for the smartcard manufacturer who can produce several end products from the same raw material. Each CoreLam<sup>®</sup> inlay is available in different formats upon customer request: from 5x5 to 4x10. Finally the CoreLam<sup>®</sup> is fully compliant with any equipment able to laminate and die cut smart cards without modification of manufacturing process.

## Field-proven

The know-how acquired in the contactless area since 1997 allows ASK to support its customers with a team of experts in the electronic & process manufacturing. ASK designs its own antennas in order to reach the best performances as well as to comply with the various RFID standards. Each CoreLam<sup>®</sup> product includes a guideline document, ensuring a perfect inlay processing allowing to get the expected smartcard.

## Any type of chips

ASK is independent from any chip manufacturer, and acts as an inlay manufacturer. ASK's strategy is to focus on contactless technology and be chip agnostic. Thus our business model in eID consists in supplying the contactless inlay when our customers supply the chip/OS solution. From very small dies (UHF) to much larger ones (ICAO 80KB of EEPROM), ASK has already qualified its CoreLam<sup>®</sup> product with a wide range of contactless chips.

## Product range

	Thickness	Main features	Clear core	UHF qualified chips	HF qualified chips	Compliant with outer layers made of	ISO bending cycles
CoreLam <sup>®</sup> 24x	410 µm	"Versatile inlay"	No	EPC Gen2	EEPROM 1 KB to 80 KB	PVC, PETG, PETF (Melinex <sup>®</sup> )	> 100 000 cycles
CoreLam <sup>®</sup> 35x	520 µm	"The inlay dedicated for Teslin <sup>®</sup> cards"	No	EPC Gen2	EEPROM 1 to 80 KB	PET/PE laminate for Teslin <sup>®</sup> cards	> 100 000 cycles
CoreLam <sup>®</sup> 43x CoreLam <sup>®</sup> 44x	300 µm 400 µm	"The 100% PC inlay"	Yes	EPC Gen2	EEPROM 1 to 80 KB	Polycarbonate, PETG, PETF (Melinex <sup>®</sup> )	> 40 000 cycles

## Product specifications

### Overview

- Laminated inlays with chip & silver antenna
- Designed to be laminated with various material: PVC, PETG, PETF (Melinex<sup>®</sup>), Polycarbonate, or clear laminate

### Product description

- UHF antenna and HF Class 1 antenna
- ASK patented technology
- Made of Teslin<sup>®</sup>, PVC, PETG, Polycarbonate
- Sheet registration: reference edges, optical registered marks, black spots

### Qualified chips

- UHF EPC Gen2
- Mifare<sup>®</sup>
- Chips for banking applications (PayPass, Visa Wave)
- Chips for identity applications (ICAO, ICAO lite)

### Transponder specification

- Compliant with ISO 14443, ISO 18006-C & ISO 10373
- Compliant with standard frequencies: 13.56 Mhz (HF) & 900 Mhz (UHF)
- Sheet size : 5x5, 3x7, 6x6, ... & customized layout

