



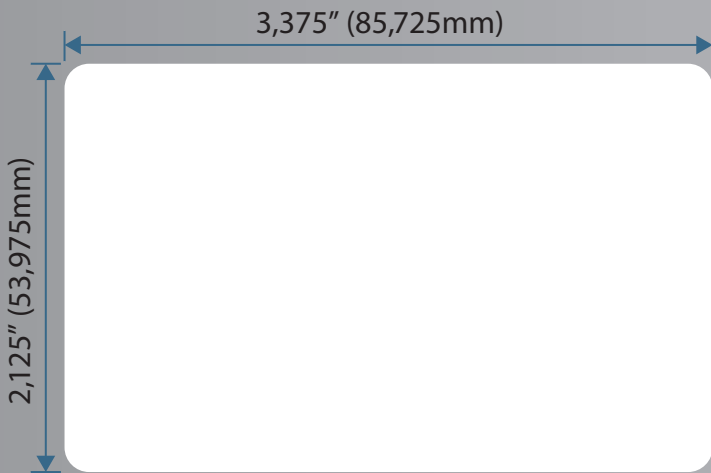
CARDNOLOGY



ECO CARDNOLOGY

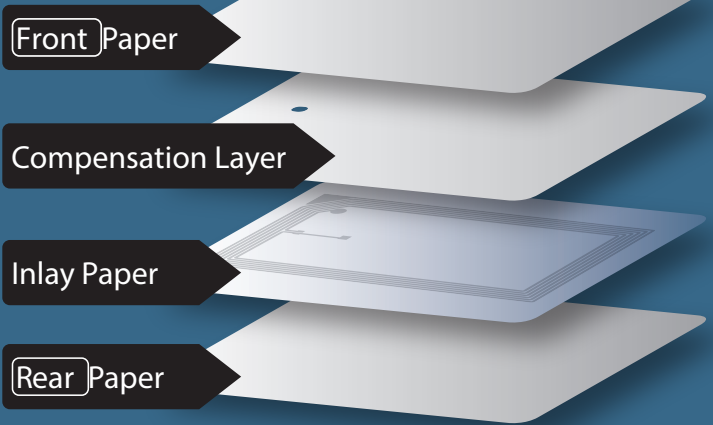
Water Resistant

885



Materials Thickness	
Front Paper	255 $\mu\text{m}$ $\pm$ 15 $\mu\text{m}$
Rear Paper	255 $\mu\text{m}$ $\pm$ 15 $\mu\text{m}$
Glue	20 $\mu\text{m}$ $\pm$ 10 $\mu\text{m}$
Inlay	100 $\mu\text{m}$
Compensation Layer	255 $\mu\text{m}$ $\pm$ 15 $\mu\text{m}$
<b>TOTAL</b>	<b>885 <math>\mu\text{m}</math> <math>\pm</math> 55 <math>\mu\text{m}</math></b>

### Card Composition



### Card Characteristics

100% plastic free hardened paper card with image durability and electronic data retention up to 2 years (handling and storage conditions, as per datasheet, have to be observed)

Features:

1. Best in class contactless performance
2. High water and scratch resistance
3. Premium design and security excellence

### Paper Characteristics

Physical Properties	Value	Unit	Test Method
Base Weight	231 $\pm$ 15	g/sqm	ISO 536
Caliper	255 $\pm$ 15	micron	ISO 534
Smoothness (Bekk)	> 300	sec	ISO 5627
Brightness (R 457)	94 $\pm$ 4	%	ISO 2469
Tensile Strength (md)	200 $\pm$ 15	N/15mm	ISO 1924/1
Tensile Strength (cd)	130 $\pm$ 10	N/15mm	ISO 1924/1
Opacity	98 $\pm$ 2	%	ISO 2471

### Compliance with international standards



FSC paper only, ensuring that paper product can be used for sustainable market.

Paper layers comply with REACH and ROHS directive, supporting the aim to improve the protection of human health and the environment concerning chemical substances.

### Physical and electrical characteristics

Operating frequency	13.56 MHz
RF Standard	ISO14443 (up to level 3)
Operating temperature	-25 to +70 $^{\circ}\text{C}$
Storage temperature	+18 to +28 $^{\circ}\text{C}$
Data retention	10 years
Write endurance	10 <sup>5</sup> cycles
Theoretical Reading Distance	85 mm $\pm$ 5 mm

### Inlay & ICs

Available with ICs:

- MIFARE<sup>®</sup> Ultralight<sup>®</sup> EV1
- MIFARE<sup>®</sup> Ultralight<sup>®</sup> C
- MIFARE<sup>®</sup> Classic 1K
- MIFARE<sup>®</sup> DESFire<sup>®</sup> Light

#### Inlay Composition

Top	Aluminium	30 $\mu\text{m}$
Support	Paper	60 $\mu\text{m}$
Bottom	Aluminium	10 $\mu\text{m}$

CARDNOLOGY SRL

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