



Prelaminates and Inlays

STANDARD AND CUSTOM CONFIGURATIONS TO FIT ANY SPECIFICATION, FROM THE LEADER IN HIGH QUALITY PRELAMINATES



- **Application compatibility**
Specify one or combine multiple integrated chips or use chipless inlays
- **Form factor adaptability**
Inlays of virtually any dimensions, in multiple material options and colors
- **Custom designed or manufactured**
Global expertise and innovation to create the optimal solution

Prelaminates are ideal for manufacturers producing cards or tags for access management, public transportation, retail, loyalty, NFC, and cashless payment applications. We can tune antennas and design custom size and thickness to enable optimized ISO card or non-ISO card form factors.

Patented wire transfer or wire embedding technology assures optimal performance of the antenna and RFID transponder. A variety of integrated circuits are available to suit a broad range of uses. Our technical support services team can help integrate specialized chips, or develop custom antenna designs to fit your manufacturing and application needs. Patented LF and HF DBond™ technology ensures highly durable chip-antenna connections and allows ultra thin prelaminate for perfect printing results without visible chip on the finished card.

APPLICATION AREAS:
HID Global meets the needs of manufacturers producing ID and payment cards for access management, public transportation fare collection, and cashless payment systems. They are ideal for loyalty programs, point-of-sale, ATM and EMV cards as well as NFC applications.

HID Global Prelaminates include durable layers, in a variety of materials, which ensure protection of embedded electronics. These ultra-thin layers are optimized to extend credential life by withstanding mechanical wear and frequent use. Chipless dual interface inlays from HID Global are CQM certified, therefore ideal for EMV card production.

Expertise and innovation have established HID Global as a worldwide leader in the manufacturing of radio frequency identification (RFID) technology. With our Prelaminate sheets or chipless Inlays, this expertise is embedded in any RFID enabled card you make. Prelaminates and inlays may be customized to fit an existing scheme for single or multi-technology applications.

SPECIFICATIONS

	Prelaminates				
	Single-Frequency			Multi-Frequency	
Base Model Number	Specific to customer format & thickness requirement				
ELECTRONIC					
Operating Frequency	125 kHz	13.56 MHz	860 to 960 MHz	13.56 MHz	125 kHz, 13.56 MHz or UHF
Chip Type	EM4102, Q5, ATA5577, Hitag S	MIFARE Ultralight, MIFARE Hospitality, MIFARE Classic, MIFARE Plus, MIFARE DESFire, SmartMX, NTAG, ICODE, LEGIC Prime, LEGIC Advant, Calypso, Cipurse, KIAT™, Vigo™, HID Trusted Tag™, SLE66R35R, EM NF48K, EM4830 chip families	Monza 4QT/R6; UCODE DNA/City	Dual Interface (no chip)	Combine multiple chips per unit
Memory	up to 2048 bit EEPROM	48 byte to 140 KB EEPROM	up to 224 bit EPC + up to 3 kbit user memory	Based on requirements	
Modules	Patented DBond™ technology (Hitag)	All standard modules or DBond™ technology	n/a		Based on requirements
PHYSICAL					
Dimensions	Up to 26 in x 20.8 in (660mm x 530mm)			Up to 30.3 in x 24.8 in (770 mm x 630mm)	
Format	Custom format for ID1 or other shapes				
Thickness varies by materials and chips	410 µm to 500 µm	190 µm to 500 µm	290 µm to 500 µm	150 µm to 410 µm	Based on requirements
Thickness over IC Module	n/a	191 µm to 500 µm	n/a		Based on modules
Housing Materials	PVC, PETG, PC, synthetic paper, Teslin*				
Colors	Standard white; available transparent or custom colors & e-window option				
CHEMICAL & MECHANICAL					
Water	50% relative humidity for storage, +/- 10%				
THERMAL					
Storage	73° F (23° C, +/- 3° C)				
Operating	Based on requirements and chip selected				
Shock/Fatigue	Based on requirements and chip selected				
OTHER					
Standards	ISO 7810, ISO 7816, optional NFC				
	n/a	ISO 14443 or ISO 15693 depending on chip	EPC C1G2, ISO 18000-6	Based on requirements, optional NFC	
Options	Layout; material; color; transparency; other chips; customized card size (CR100, XL, XXL)				
Certifications	ISO 9001:2015, MasterCard® CQM certification, Industry-specific product certifications				
Warranty	1 year				

HID Global can create a custom pre laminate or inlay solution to fit your application requirements for chip type, dimensions, programming and materials.



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