

Smart Card Product Level Operation Standard

Data: April, 2021

Standard Process		Level		Super Grade	Grade A	Grade B	Grade C
Customers' Requirements				For very high quality requirement orders.	For high quality orders.	For general quality requirement orders	For orders which the quality requirements are not high, pursues low prices, and quality complaints do not accept.
Layers Assignment	Front/Back Layer	Lamination: According to the thickness required by finished card of order, to select the cocorresponding brand and thickness laminated film.			No laminated film.		No laminated film.
	Middle Layer	To select corresponding brand and thickness PVC sheet according to the specifications of ordered card.			1. The cards were made by PVC sheet directly. 2. The front and back sides without laminated film.		1. The cards were made by recycled PVC sheet directly. 2. The front and back sides without laminated film.
Plate Making	Silkscreen Printing	All colors must be dried with film. After the drying is completed, to strictly check printing quality of the screen whether small characters are good, the lines and edges are straight (no jagged).	Except for the embossed color, other colors must be dried with film. After the drying is completed, to strictly check printing quality of the screen whether small characters are good, the lines and edges are straight (no jagged).			All colors must be dried with sensitive film except for special requirement. After the drying is completed, to strictly check the printing quality of the screen whether small characters are good, the lines and edges should be as non-jaggy as possible.	
	Offset Printing	The CTP plate must be strictly selected before making plate, pay more attention to check whether it is good. To strictly check whether content and format of printed layout are correct, and the clarity of CTP image is normal after making plate.					
Silkscreen Printing	Printing	The printed color and order artwork should be more than 95% accurate, and the first article inspection should be done for each color. It will be handed over to QC for special inspection after production manager on duty confirmed. For orders over 5,000pcs, the trial lamination is required to confirm that color is qualified before mass production. In debugging process of ink, it must be noted that concentration should be consistent with the printing requirements to avoid color difference.			The printed color and order artwork should be more than 85% accurate. It will be handed over to QC for special inspection after production manager on duty confirmed. For orders over 10,000pcs, the trial lamination is required to confirm that color is qualified before mass production.		Do not follow color. When quantity exceeds 100,000pcs, a trial lamination is required to confirm that there is no significant difference in color before mass production.
Offset Printing	Printing	The printed color and order artwork should be more than 95% accurate, and the first article inspection should be done for each color. It will be handed over to QC for special inspection after production manager on duty confirmed. For Pantone orders over 5,000pcs, the trial lamination is required to confirm that color is qualified before mass production.			The printed color and order artwork should be more than 85% accurate. It will be handed over to QC for special inspection after production manager on duty confirmed. For Pantone orders over 20,000pcs, the trial lamination is required to confirm that color is qualified before mass production.		Do not follow color. When quantity exceeds 100,000pcs, a trial lamination is required to confirm that there is no significant difference in color before mass production.
Composite	put the front, back and middle material together	Firstly, operators must wear anti-static clothing when working, strictly check color, artwork and content, and report to on-duty production manager for review. Secondly, it will be handed over to QC for special inspection after production manager confirmed. Finally, the mass production will started after product is qualified. In production, each pile of front, back and middle material must be punched to confirm whether the front and back positions are accurate. In addition, each large PVC sheet must be strictly dust-removal.			Operators strictly check color, artwork and content, and report to on-duty production manager for review. Then it will be handed over to QC for special inspection after production manager confirmed. Finally, the mass production will started after product is qualified. No special dust removal before composite.		No special dust removal before composite.
	Magnetic stripe process	Firstly, operators must wear anti-static clothing when working, strictly check magnetic stripe type, and report to on-duty production manager for review. Secondly, it will be handed over to QC for special inspection after production manager confirmed. Finally, mass magnetic stripe production will be started after product is qualified. To check the error between magnetic and printing position during production, and the error can not exceed 0.5mm.			Operators strictly check magnetic stripe type, and report to on-duty production manager for review. Secondly, it will be handed over to QC for special inspection after production manager confirmed. Finally, mass magnetic stripe production will be started after product is qualified. To check the error between magnetic and printing position during production, and the error can not exceed 0.8mm.		The error between the magnetic position and the required printing position cannot exceed 1mm.
	Lamination	Operators must wear anti-static clothing when working, use level 1 steel plates and do dust-removal before lamination. The pressure test is required when quantity more than 20,000pcs, and reported to the production manager on duty for review. To start mass production after QC pass the special inspection.			To use level 2 steel plates and do dust-removal before lamination. The pressure test is required when quantity more than 20,000pcs, and reported to the production manager on duty for review. To start mass production after QC pass the special inspection .		Use level 3 steel plates for lamination.

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Punching	Punching Card		1. Operators wear white gloves to work, and check each batch of orders. 4. To start mass punching after QC pass special inspection. 5. To check quality of punching card for every 1000pcs. The punched card must have no burrs, and punching position is uniform, error does not exceed 1mm.	2. Operators reported to on-duty production manager for review. 3. Production manager QC to do special inspection.	The punched card must have no burrs, the punching position is uniform, and the error does not exceed 1.2mm.	The punched card must have no burrs, the punching position is uniform, and the error does not exceed 1.5mm.
Personalization	Printing Code and labeling		There is no obvious scratch on card after operation is completed, the printing data, position and font size are consistent with requirements. The original data needs to be checked for every 1000 prints. Due to fast printing speed, there must be someone to collect card and check data during printing when card quantity more than 10,000pcs.	There is no obvious scratch on card after operation is completed, the printing data, position and font size are consistent with requirements. The original data needs to be checked for every 3000 prints. Due to fast printing speed, there must be someone to collect card and check data during printing when card quantity more than 10,000pcs.	There is no obvious scratch on card after operation is completed, the printing data, position and font size are consistent with requirements. The original data needs to be checked for every 5000 prints. Due to fast printing speed, there must be someone to collect card and check data during printing when card quantity more than 10,000pcs. The printing speed of code must be kept within 10,000pcs/hour.	
	Embossed number		The data, position, font size and hot stamping color of embossed code are consistent with order requirements. The height of the embossed number is 0.3-0.35mm (specifically adjusted by the hot stamping effect). The card base cannot be significantly deformed when the embossed number is less than 8 digits.			
	Gold Hot Stamping		There are no obvious scratches, no pattern, incomplete and blurring of hot stamping effect, the surface of the hot stamping pattern is smooth and wrinkled, and the card base has no obvious deformation. For manual hot stamping, the effect of hot stamping must be checked for every 100pcs of hot stamping. To check the hot stamping effect at any time by automatic hot stamping machine hot stamping, every 200pcs not less than 20pcs.	There are no obvious scratches, no pattern, incomplete and blurring of hot stamping effect, the surface of the hot stamping pattern is smooth and wrinkled, and the card base has no obvious deformation. For manual hot stamping, the effect of hot stamping must be checked for every 500pcs of hot stamping. To check the hot stamping effect at any time by automatic hot stamping machine hot stamping, every 1000pcs not less than 10pcs.		
	Magnetic Stripe Encoding		There is no obvious scratch on card after operation is completed. Except for special circumstances, do magnetic stripe encoding automatically by card printer. After encoding, each box of cards must be sampled more than 15pcs (the first 5pcs and last 5pcs) to test whether reading and writing are normal.	In general, do magnetic stripe encoding by automatic magnetic encoding machine. After magnetic stripe encoding is completed, each box of cards must be sampled at least 2 (the beginning and the end card) to test whether reading and writing are normal.		
	Thermal Printing Code /Barcode		There is no obvious scratch on card after the operation is completed, the blurry printing and incomplete printing content are not allowed. The printing operator must check each card. The inner box label must be a special self-adhesive label. The print head must be cleaned after printing 1000pcs card.	The blurry printing and incomplete printing content are not allowed. The inner box label must be a special self-adhesive label.		
Packaging	Finished Products Inspection		To wear white gloves to work. All cards were checked for appearance inspection, the implementation standard is based on our company "Finished Card Appearance Inspection Standard". For function inspection, the implementation is according to our company "Regular Contact IC Card Function Inspection Standard".	All cards were checked for appearance inspection, the implementation standard is based on our company "Finished Card Appearance Inspection Standard". For function inspection, the implementation is according to our company "Regular Contactless IC Card Function Inspection Standard".	The random inspection for appearance, the implementation standard is based on our company "Finished Card Appearance Inspection Standard". For function inspection, the implementation is according to our company "Regular Contact IC Card Function Inspection Standard".	The random inspection for appearance, using the edge-pulling inspection method, only inspect the four sides of the card whether there is bad punching and magnetic strip deviation.
	Inner Packaging		Choose inner packaging box according to order requirements. Each box of cards is packed with packaging film and then put into box. The inner box will be covered with shrinkage film.	Choose inner packaging box according to order requirements. Each box of cards is packed with packaging film and then put into box. The inner box will be covered with shrinkage film.	Choose inner packaging box according to order requirements. Each box of cards is packed with packaging film and then put into box. The inner box will be not covered with shrinkage film.	Choose inner packaging box according to order requirements, and each box of cards is not packaged with packaging film, but is directly packed into box, and the inner box is not covered with shrink film.
	Outer Packaging		Choose outer packaging carton according to order requirements, each carton of cards is bound with a yellow packing tape, and can add woven bag according to requirement. The packaging method specified by the customer is acceptable.	Choose outer packaging carton according to order requirements, each carton of cards is bound with a yellow packing tape, and can add woven bag according to requirement.	Choose outer packaging carton according to order requirements, and each box of cards is bound with a yellow packing tape.	Choose outer packaging carton according to the order requirements.