

<b>Yuho technology Co., LTD</b>	File name:	Color box Quality Standard		No.:	YH-SJ-025	Version:	AO
	Formulation Department:	Quality Control Departm ent	Date:	2024-2-20	Revision Date:	Page:	Page 1
Formulate:				Reviewed:			

### 1、 Purpose:

In order to pay better attention to and monitor the quality of color boxes and improve the quality of our color boxes to meet customer quality requirements, this inspection standard is formulated.

### 2、 Scope of application:

Adapt to the quality inspection and judgment of all color box products (including color cards and white boxes), except for customers' special requirements.

### 3、 Sampling plan:

Refer to (GB-2828.1-2012) "Sampling inspection standards" for single sampling

**AQL:** CR: 0 MAJ: 0.4 MIN: 1.0

### 4、 Test conditions:

4.1 Tools: tape measure, straight ruler, film ruler, 600/3M adhesive paper, related testing instruments

4.2 Visual inspection: Under a 60W incandescent lamp, the eye is 30 ~ 40CM away from the object to be tested for visual inspection.

### 5、 Definition

5.1 Serious defects: defects that affect the structure and function of the product or endanger the safety of the human body.

5.2 Major defects: refers to the defects that affect the appearance or performance of the product, but the product is still usable.

5.3 Minor defect: refers to the defect that affects the appearance or performance of the product, but the product is still usable.

5.4 Class A surface: the main surface, that is, the product can be placed directly.

5.5 Class B side: side, back of the product vertical box body and front of the inner box.

5.6 Class C surface: The bottom or other surface of the product vertical placement box body other than the A and B surfaces.

### 6、 Metric code

S: Square Meter L: length N: number D: distance W: width

### 7、 Standard content:

7.1 Color box, color card, color set, color page

INSPECTI ON Item	Inspection standards	Inspection tools / Instruments	Bad category		
			CR	MA J	MI N
Material	1, the type of cardboard, gram weight and work order, sample requirements.	Visual, digital caliper	√		
	2, the type of cardboard, gram weight and work order, sample requirements.	visual	√		
Printing	1, Text content pattern: The printed text content and pattern are consistent with the sample.	Visual	√		
	2, Overprint: Grade A side error is allowed to be 0.2MM,B, C side error is allowed to be 0.25MM, Special products according to customer specified requirements.	Tape measure or ruler		√	
	3、 Color difference: A, trademark area color difference refer to the standard sample, visually consistent with the sample. B, other areas of color difference reference standard sample, visual difference is not obvious. C, for the qualified color difference products, the same batch shipment must be maintained Consistent or consistent with the color of the board, different board slight color difference to identify. D, if the customer has signed the limit sample between the limit sample can be accepted.	visual		√	
Printing	4、 Bad color spots: ink droppings, white spots, black spots, dirty spots, paper spots, sticky flowers, pink spots Grade A surface: trademark text pattern can not have; Other parts $S \leq 0.3\text{mm}^2$ , $N \leq 1$ is acceptable. Level B: text pattern part $S \leq 0.3\text{mm}^2$ , $N \leq 1$ ; Other parts $S \leq 1.0\text{mm}^2$ , $N \leq 1$ is acceptable. Grade C surface: not as control points, not visually obvious is acceptable.	Film ruler			√
Printing	5、 Missing word, word collapse, A, B side can not have, C level surface can be correctly identified.	Visual	√		
	6、 Scratching, wiping, scratching: Grade A surface: text pattern can not have; Other	Visual, film			√

	<p>parts <math>L \leq 20\text{mm}^2</math>, <math>W \leq 0.15\text{mm}</math>, <math>N \leq 1</math> acceptable;  B side: text pattern part <math>L \leq 10\text{mm}</math>, <math>W \leq 0.10\text{mm}</math>, <math>N \leq 1</math>;  Other parts <math>L \leq 30\text{mm}^2</math>, <math>W \leq 0.25\text{mm}</math>, <math>N \leq 2</math>, <math>D \geq 100\text{mm}</math> acceptable;  C-level surface: text pattern part <math>L \leq 15\text{mm}</math>, <math>W \leq 0.15\text{mm}</math>, <math>N \leq 1</math>;  Other parts <math>L \leq 40\text{mm}</math>, <math>W \leq 0.35\text{mm}</math>, <math>N \leq 3</math>, <math>D \geq 100\text{mm}</math> acceptable;</p>	ruler			
	<p>7、ink bar, water bar, ghost, water dry, water large  Grade A side: Not allowed.  Grade B and C surfaces: 30cm not visually noticeable.</p>	Visual inspection			√
	<p>8, the connection of printing oil effect, uniform oil, light oil light greater than <math>50^\circ</math>, matte oil light <math>25^\circ \pm 5^\circ</math></p>	Visual inspection		√	
	<p>9, the bar code scanning effect is qualified, can read the bar code numbers correctly</p>	Bar code scanner		√	
Surface Treatment	<p>1、1, surface treatment, consistent with the admitted sample.</p>	Visual inspection		√	
	<p>2, surface treatment photometric standard:  ①Brightness of printing oil <math>\geq 50 \pm 5</math> degrees  ②printing machine matte oil brightness <math>\geq 15 \pm 5</math> degrees  ③The brightness of semi-gloss matte oil of printing connecting machine is <math>\geq 25 \pm 5</math> degrees  ④brightness of UV oil <math>\geq 80 \pm 5</math> degrees  ⑤Gloss glue brightness <math>\geq 80 \pm 5</math> degrees  ⑥too dumb glue brightness <math>\geq 10 \pm 5</math> degrees  Other customers if there are special requirements according to customer requirements</p>	Visual, photometer		√	
Surface Treatment	<p>3, adhesion,  <b>Glue test</b>, all the product surface too light glue and dumb glue to do glue test, that is, 3M/600 adhesive paper attached to the printing ink position 5 to 7CM, with 60 degree Angle speed pull up the film, such as the film is pulled up foam to determine unqualified.  <b>UV test</b>, all UV oil products with 3M/810 opal adhesive paper flat on the oiled color paper 5 to 7CM, with 60 degree bevel speed pull up, such as UV oil is pulled up to determine unqualified.</p>	3M/600 adhesive paper 3M/810 opal adhesive paper		√	
	<p>4. The color is close to the standard sample after</p>	Visual			√

	surface treatment.	inspection, sample			
	5, the film blister, impurity: trademark body can not have, other positions $S \leq 0.5\text{mm}^2$ , acceptable.	Visual, film ruler			√
	6, local UV offset, $W \leq 0.7\text{mm}$ is acceptable.	Visual, film ruler			√
	7、 Gold and silver stamping: A、 No dirt, paste plate phenomenon, incomplete does not affect the recognition and acceptance. B、 Without overprinting, allow to go 1MM; Need to set the allowable walk 0.5MM.	Visual, film ruler			√
	8、 Bump to dent: A, do not burst paper phenomenon. B, no need to set, allowed to go 1MM; Need to set the allowable position of 0.5MM..	Visual, film ruler			√
	9、 Wear effect: gloss oil, matte oil $\geq 4\text{LB}/200$ times, polishing $\geq 4\text{LB}/400$ times, UV $\geq 4\text{LB}/600$ times 00 次	Ink decolorization wear-resistant instrument		√	
Laminating Pit	1、 Material, pit pattern and grade are consistent with the sample, pit paper pit type is consistent with the sample.	VISUAL		√	
	2, adhesive effect, tear pit paper and face paper, face paper can stick rotten pit paper peak 98% of paper as qualified.	Hand sight, visual		√	
	3, flying glue, sticky flower, trademark fuselage A level surface can not have, other positions 30CM visual is not obvious as qualified.	VISUAL			√
	4, long pit, short pit $L < 2\text{mm}$ , long pit positioning needle and bottom needle are not allowed, other bits allow $L < 2\text{mm}$ , acceptable 5, mounting reverse, mounting wrong, not allowed	Tape measure, straight ruler		√	
	6, crepe paper, 30CM distance is not visually obvious acceptable	VISUAL		√	
	7, moisture, control at $16\% \pm 2\%$ to flow down the process, proofing products controlled within 16%	Moisture tester			√
	Beer cut	1, the structure size, the shape structure is consistent with the sample, the size is consistent with the sample error is controlled within 1MM.	Tape Measure		√
2, the beer is cut out, the card box, the box cover, the color page is controlled within 1MM, the pit box is controlled within 2MM.		Film ruler		√	
3、 Burst line, burst color: A、 Grade A surface explosion line		Visual, film ruler		√	

	<p><math>L \leq 2\text{mm}</math>, <math>W \leq 0.25\text{mm}</math>,  <math>N \leq 1</math>, B, C surface explosion line <math>L \leq 4\text{mm}</math>, <math>W \leq 0.25\text{mm}</math>, <math>N \leq 2</math>.  B、 The color explosion distance of 30CM is not obvious to the eye.</p>				
	4, raw edge, color box molding after the visible edge allows $L \leq 1\text{mm}$ , $N \leq 3$ , acceptable.	Film rule			√
	5、 Press line, beer knife, molding effect: A、 The line is full and easy to fold, and the straight cutting edge of the beer knife is smooth and clean, without beer penetration. B、 After forming, there is no explosion Angle, sharp edges, easy to form the socket tightness is moderate.	Visual		√	
	6、 Dropping the knife, dropping the line is not allowed, the expansion of the aircraft hole position and jack position is not allowed.	Visual		√	
	7、 Knife line curved, 30CM visual is not obvious acceptable.	Visual		√	
	8、 Color level line offset, class A in allow 1MM, B, C level surface allow 1.5MM.	Visual, straight ruler		√	
	9、 The window position points in the middle and dislocation control within $\pm 1\text{MM}$ .	Visual, straight ruler		√	
	10、 Scratch, wipe, 30CM visual is not obvious acceptable.	Visual			√
Sticky box	1、 Adhesive for firm: <b>A. Destructive test</b> : Tear the buried edge of the glued color box by hand, 80% of the area of the glued mouth can tear the paper fiber and judge it as qualified, only 1PCS less test each time when the first piece is inspected and shut down and re -opened, and 10PCS are check ed and tested before each batch of finished products are stored. <b>B. Hand tearing test</b> , manually pull both ends of the adhesive edge hard an d gently until the adhesive edge can be pulled apart, and the paper fiber can be torn on both sides of the adhesive edge is considered qualified, and the inspection is conducted every 15 minutes, 10PCS are checked each time. Note: Adhesive firmness inspection is prohibited with a single visual inspection.	Tear by hand Visual		√	
	2、 Off line, over line, high and low line; A、 Off-line $\leq 1.5\text{MM}$ . B、 Overline, sticky edge forming flat without	Visual Film ruler		√	

	scratching hands is qualified. C、 The high and low line is less than 2MM and does not affect the forming effect.				
	3, overflow, A level surface is not available, B, C level surface $\leq 1\text{mm}^2$ , $N \leq 2$ , $D \geq 50\text{MM}$ .	Visual, film ruler			√
	4, burst Angle, burst line, non-A-level surface within 2MM acceptable.	Visual, film ruler		√	
	5, buckle the bottom, fold line in place easy to form, no overflow glue, sticky flower.	Visual		√	
	6, film flower, 30CM visual is not obvious.	Visual			√
	7, dirty, glue water stains, 30CM visual is not obvious.	Visual			√
Reliability testing	Rupture resistance, wear resistance, humidity, adhesive box strength, aging, 3M glue test: sample according to customer requirements for corresponding testing, normal each work order sampling 5 for corresponding testing. Viscose color box each batch of glue water production must take 10 for aging and low temperature test.	Related testing equipment		√	
Packaging	1, firmness, appearance, compact packaging without loosening the phenomenon of spread, finished packaging square four corners, the same size, placed neatly.	Visual		√	
	2. Quantity, the quantity of packaging is consistent with the quantity of labels, and the quantity of each package is accurate and meets the requirements of the quantity of engineering orders.	Visual		√	
	3, can not be mixed, mixed, packing box without damage without foreign matter,	Visual		√	
	4. Only one mantissa is allowed, and it cannot be rewritten by hand, it must be a print font.	Visual		√	
Tags Stamps	A、 Label in a uniform position, label paper cut neatly. B、 The position of the clear cover of the production inspection chapter is unified on the lower left of the label paper, and the position of the clear cover of the QA chapter is unified on the production date.	Visual			√