

RIKEN U.S.A. CORPORATION

**PRODUCT SPECIFICATION**

ALMIC AMBER (50P)S  
ALMIC SILVER (50P)S  
ALMIC RED (50P)S  
ALMIC BLUE (50P)S  
ALMIC BLACK (50P)S

**CUSTOMER SIGNATURE**


RIKEN U.S.A. CORPORATION


RIKEN TECHNOS CORPORATION

Approved By	Confirmed By	Edited By

Created	2016.5.11	PRODUCT SPECIFICATION	Standard No.	Revision No.
Edited			F6022-001	0

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## 1. DEFINITION OF APPLICATION

This product specification is for a laminate film produced by Riken Technos Corporation and Supplied to Riken U.S.A. Corporation (To be referred to as “the film”) with a construction of Adhesive PET/PVC Film. The film is for interior use, applied as a decorative surface film for kitchen doors.

## 2. FILM COMPOSITION AND CHARACTERISTICS

### 1) PRODUCT NAME

ALMIC AMBER (50P)S  
 ALMIC SILVER (50P)S  
 ALMIC RED (50P)S  
 ALMIC BLUE (50P)S  
 ALMIC BLACK (50P)S

### 2) FILM COMPOSITION

	PROTECTION FILM
	HAIRLINE PRINTED PET FILM
	ADHESIVE
	PVC FILM
	PRIMER COATING

### 3) PRODUCT CHARACTERISTICS

Product characteristics are listed in Attachment - 1.

## 3. MEASUREMENT METHOD

### 1) THICKNESS

Film thickness is specified as follows: Thickness measured on a 1/1000mm dial gauge (JIS 1 rank gauge) .

LISTED THICKNESS	TOLERANCE
0. 5 0 mm	± 1 0 %

### 2) WIDTH

Film width is specified as follows: Width measured on a convex scale (JIS 1 rank gauge) .

WIDTH	TOLERANCE
1, 2 6 0 mm	- 0、 + 1 0 mm

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### 3) LENGTH

Film length will not be less than that stated on the label. Length measured on the production machine quantity meter.

STANDARD LENGTH	MINIMUM LENGTH	SUPPLEMENTARY EXTRA LENGTH IN CASE OF DAMAGE
2 5 0 m	8 0 m	1 0 m

## 4. SURFACE APPEARANCE

### 1) INSPECTION METHOD OF SURFACE APPEARANCE

Film appearance is inspected under daylight, or with the sample placed on a flat horizontal surface 50cm from a 40 watt fluorescent light of 300 lux at a 45°.

### 2) CONFIGURATION OF STANDARD SAMPLE

- a) A standard sample was taken from the first mass production lot (Lot No.502HP909)
- b) Sufficient standard samples should be produced and kept by all related companies.

### 3) APPEARANCE, SHAPE, STYLE OF ROLL

No	ITEM	SPECIFICATION	TEST METHOD	
1	COLOR	Minimal difference from standard sample※	Visual Inspection	
2	GLOSS	Minimal difference from standard sample※	Visual Inspection	
3	Air bubble, Contamination, Missing print, Pin holes ,Fish-eye, Black spot	There should be none of these type of defects with a size of over 2.0mm <sup>2</sup> . However, up to 3 spot defects over 2.0mm <sup>2</sup> are allowed for every 250m.	Kyo Foreign Article Inspection Method.	
4	S h a p e	Flaring at edge of roll	Less than depth of 40mm (Measured length : 1,500mm)	Visual Inspection
		Flaring at centre of roll	Less than depth of 40mm (Film Width: Full Width)	Visual Inspection
5	r o l l	Unevenness in roll edge	No unevenness in the edge of the roll beyond 10mm from one side	Visual Inspection
		Pressed film wrinkle ,mark	Not present at time of shipment.	Visual Inspection

※ Standard sample ; ALMIC AMBER (50P)S ; 501HP408  
ALMIC SILVER (50P)S ; 502HP404  
ALMIC RED (50P)S ; 502HP804  
ALMIC BLUE (50P)S ; 501HP804  
ALMIC BLACK (50P)S ; 602HP310

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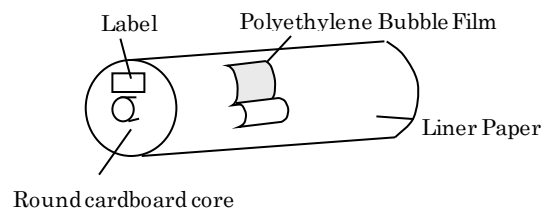
#### 4) Maximum Allowance of Defects

- (a) The defective portion that exceeds the specified limit is set to lengths of up to 2m, with respect to the standard length, and a maximum count of 10 defects. Serious defects within 2m are subtracted from the standard length and are calculated as 1 defect each. Defects that exceed 2m are removed.
- (b) Total defect length included in the film which is shipped must be calculated by the above rate described in (a).
- (c) In the case that defective sections of the film are included in the shipped material, the respective location must be marked on the diagram (as shown in attachment 2), which will be attached to the outside packing.

#### 5. WRAPPING OF ROLLS

- 1) The film is wrapped around a cardboard core with the film surface facing out.
- 2) The beginning of the film is attached to the cardboard core with double-sided tape.
- 3) Both ends of the paper core are reinforced by a metal rim.

Core Thickness	1 5 m m
Inner Diameter	3 INCHES ( 8 0 . 5 m m )
Length	FILM WIDTH +50~100mm



- 4) The completed film roll is wrapped with one or two layers of PE Film, and then with one or two layers of Polyethylene Bubble Film, and finally with one layer of liner paper. On both ends of the roll a round cardboard cap is attached with cloth tape or craft tape.

#### 6. LABELLING

- 1) The label will include product reference (known as film name), size, length and lot no.
- 2) Labels will be attached to the centre area and both ends of each packaged roll.

#### 7. PACKAGING

- 1) A steel core is put through the paper core to support the roll, and the rolls are suspended in a wooden case.
- 2) The name of the product is clearly labeled on the outside of the wooden case.
- 3) The appearance of the wooden case packaging is shown in attached diagram - 1 in order to prevent water getting into the case.

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## 8. SHIPPING INSPECTION

One 1m sample is taken from each roll, and we carry out inspection described in section 4. 3 of this document, with the first mass production lot set as a standard.

## 9. WARRANTY PERIOD

The warranty period is three months from the date of delivery, provided the storage conditions in section 10 below are met.

## 10. STORAGE OF PRODUCT

- 1) Film must be stored out of direct sunlight and avoiding wetness. Please store the film in a cool and dark location, and use the film promptly after delivery.
- 2) Film must be stored in suspended form, avoiding direct pressure to the film (Storage conditions: Temperature = less than 30 °C, Humidity = approximately 50%) .

## 11. PROCESSING OF DEFECTIVE FILM

- 1) Method of Confirming Defective Film
  - (a) When defective material is identified according to the inspection method listed in section 8 above, a return request form must be submitted as soon as possible, before the warranty expires.
  - (b) Following that notification, the related companies discuss mutual acceptance of the rejection.
- 2) Compensation for Rejected Film
  - (a) Riken Technos Corporation's responsibility for rejected film should be compensated for only by substitute film.
  - (b) When film has been laminated to MDF, Riken Technos Corporation's responsibility is for film only, and does not include other material or processing costs of the laminator.

## 12. SCOPE OF FILM QUALITY GUARANTEE

Riken Technos Corporation is not responsible for the following circumstances:

- 1) If the film is used for purposes beyond those listed in this specification.
- 2) For problems not included in this product specification or confirmed and accepted in writing by both companies.
- 3) Film that is beyond the Warranty Period.
- 4) Film processed in a way that ignores the attached Points of Caution.

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### 1 3 . APPROVAL OR REVISION OF SPECIFICATION

#### 1) Approval:

The necessary number of copies of this specification will be made, and after the relevant companies sign for approval, each will keep one copy on file.

When no queries or questions are submitted within one month of submission of the specification then it will automatically be confirmed as the official specification.

#### 2) Revision:

In case that any revisions are needed to this specification, it will be discussed on an individual basis and confirmed in writing by both parties.

### 1 4 . PRODUCT LIABILITY

Riken Technos Corporation accepts no liability for defects or accidents arising if the user does not adhere to the attached points of caution.

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## Attachment- 1

## PRODUCT CHARACTERISTIC SPECIFICATION

ITEM		SPECIFICATION		TEST METHOD
Mechanical character	Tensile Strength N	RD	$\geq 4.2$	J I S K - 6 7 3 2 Machine: Shimazu Autograph Machine Test Temperature: $23 \pm 2^{\circ}\text{C}$ Pulling Speed: 50 mm/min
		CD	$\geq 4.2$	
	Elongation %	RD	$\geq 3.0$	
		CD	$\geq 3.0$	
Heat Shrinkage %	RD	$-3.0 \sim +3.0$	J I S K - 6 7 3 4 $100^{\circ}\text{C} \times 30 \text{ min}$	
	CD	$-2.0 \sim +2.0$		
Adhesion Strength between PET/PVC film layers	N/25mm	$\geq 15.0$	180° Peeling Test (PET Strength) $23 \pm 2^{\circ}\text{C}$ 、100mm/min	
Color Fastness		Slight Color Change (visual inspection)	Sunshine Weather-O-Meter 100 hours exposure	

\* RD = Running direction of film, CD = Across the width of the film



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Attachment - 2 DEVELOPED CHECK SHEET

FILM NAME		LOT NUMBER		INSPECTOR	
R I G H T	C E N T E R		L E F T		

0 m		
2 5 0 m		
5 0 0 m		
7 5 0 m		
1 0 0 0 m		

If there are serious defects beyond the specified limit then the following numbers or names will be listed on the above check sheet:

- |                      |                   |                   |
|----------------------|-------------------|-------------------|
| 1 : Colour variation | 4 : contamination | 7 : print defects |
| 2 : scratches        | 5 : pin holes     | 8 : lines         |
| 3 : bubbles          | 6 : fish eyes     | 9 : joints        |