



# SPECIFICATION SHEET

This product specification sheet provides the detail to aid you in identifying the most appropriate product type to meet your company's specific requirements. Please direct questions to: Ricoh Customer Service 1-800-843-7058

## DESCRIPTION

Ricoh's 140LES is a high sensitivity polypropylene direct thermal film stock with high image durability against most environments.

## KEY FEATURES

High sensitivity, high image preservation properties; durable polypropylene base film that is tear and water resistant.

# — APPLICATION AREAS —



Airline  
Baggage Tags

Meat Processing

Wristbands

Laboratory Labels

Shelf Tags

Weigh Scale Labels

Product ID

# FACESTOCK / PRESERVATION PROPERTIES

## FACESTOCK PROPERTIES

ITEM	UNIT	SPECIFICATION	TEST METHOD
Basis Weight	lbs (24x36x500 sheets)	52.4 ± 4.9	TAPPI T-410
	g/m <sup>2</sup>	85 ± 8	
Caliper	mil	4.1	TAPPI T-411
	µm	105 ± 11	
Image Color		Black	Visual Check
Image Density	(ODU) Minimum	1.30	X-Rite Densitometer
Tensile Strength	MD kg / mm <sup>2</sup>	9.0	ASTM D-882
	CD kg / mm <sup>2</sup>	15.0	
Stiffness	MD gf-cm Minimum	7.84	TAPPI T-489
	CD gf-cm Minimum	11.76	
Initial Activation Temperature	(O.D. = 0.2) °F / °C	203 / 95	
Effective Activation Temperature	(O.D. = 0.8) °F / °C	221 / 105	

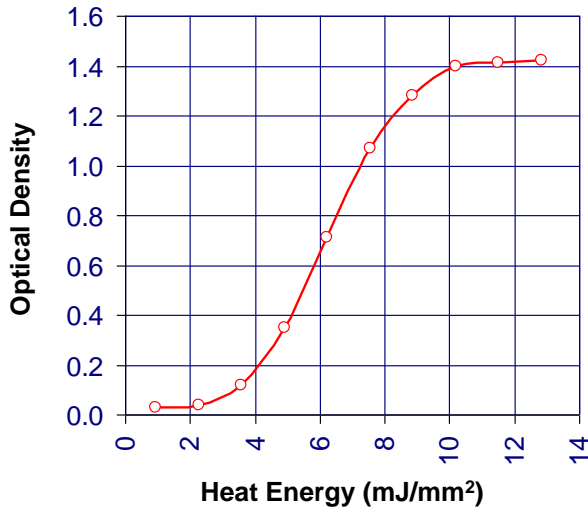
## PRESERVATION PROPERTIES

ITEM	SPECIFICATION	TEST METHOD
Oil Resistance	Image	1.20 Minimum
	Background	0.15 Maximum
Moisture Resistance	Image	40° C, Dry, 15 Hours
	Background	X-Rite (ODU)
Heat Resistance	Image	1.20 Minimum
	Background	0.20 Maximum
Water Resistance	Image	70° C, Dry, 24 Hours
	Background	X-Rite (ODU)
Water Resistance	Image	1.00 Minimum
	Background	0.12 Maximum
		Water Immersion, 15 Hours
		X-Rite (ODU)

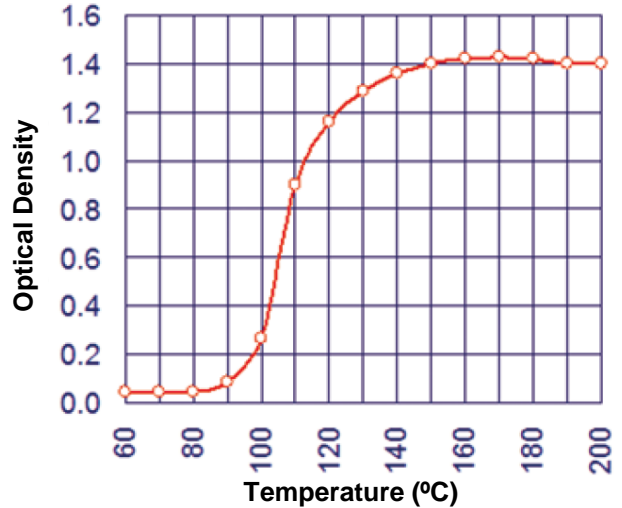


### SENSITIVITY RESULTS

#### Dynamic Sensitivity



#### Static Sensitivity



Sensitivity curves are for reference only.

Storage Conditions: Below 95°F (35° C) and less than 85% R.H. in a warehouse, avoiding direct sunlight.

Tests performed on Markpoint MP104.

### 140LES - LAMINATED PRODUCT

GRADE	UNIT	G8	G12	G22
Application	°F	10 to 120	-40 to 122	28 to 120
Temperature	°C	-12 to 49	-40 to 50	-2 to 50
Service	°F	-20 to 120	-65 to 131	-40 to 122
Temperature	°C	-29 to 49	-54 to 55	-40 to 50
Basis Weight	lbs	101 ± 11	105 ± 11	105 ± 11
(24 x 36 x 500)	g/m <sup>2</sup>	164 ± 18	171 ± 18	170 ± 18
Caliper	µm	178 ± 22	179 ± 22	179 ± 21
	mil	7.0 ± 0.7	7.0 ± 0.7	7.0 ± 0.7

Liner: 42 lbs

Caliper: 2.5 mils ± 10% (64 ± 8 µm)

Opacity: 65% Maximum (Photovolt)

#### Adhesive Attributes:

G12 – Wide Temperature and Permanent

G8 – Tight Removable

G22 – Hot Melt for High Moisture Environments

### CERTIFICATES / REGULATIONS / DIRECTIVES

BPA Free

RoHS

ISO9001

Indirect Food Contact

REACH

WEEE

ISO14001

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