



# 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 140LDS 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 —



Produce Labels



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)	45.5 ± 8	TAPPI T-410
	g/m <sup>2</sup>	59 ± 6	
Caliper	mil	2.6 ± 0.3	TAPPI T-411
	µm	65.0 ± 9.0	
Image Color		Black	Visual Check
Image Density	(ODU) Minimum	1.30	X-Rite Densitometer
Tensile Strength	MD kgf/15 mm Minimum	9.0	TAPPI T-494
	CD kgf/15 mm Minimum	15.0	
Stiffness	MD gf-cm Minimum	0.98	TAPPI T-489
	CD gf-cm Minimum	1.76	
Initial Activation Temperature	(O.D. = 0.2) °F / °C	212 / 100	
Effective Activation Temperature	(O.D. = 0.8) °F / °C	239 / 115	

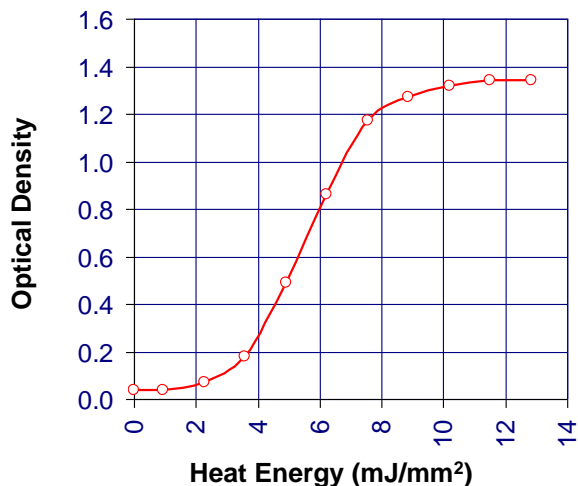
## PRESERVATION PROPERTIES

ITEM	SPECIFICATION	TEST METHOD
Oil Resistance	Image 1.20 Minimum	40° C, Dry, 15 Hours X-Rite (ODU)
	Background 0.15 Maximum	
Moisture Resistance	Image 1.20 Minimum	40° C, 90% RH, 24 Hours X-Rite (ODU)
	Background 0.15 Maximum	
Heat Resistance	Image 1.20 Minimum	70° C, Dry, 24 Hours X-Rite (ODU)
	Background 0.20 Maximum	
Water Resistance	Image 1.00 Minimum	Water Immersion, 15 Hours X-Rite (ODU)
	Background 0.12 Maximum	

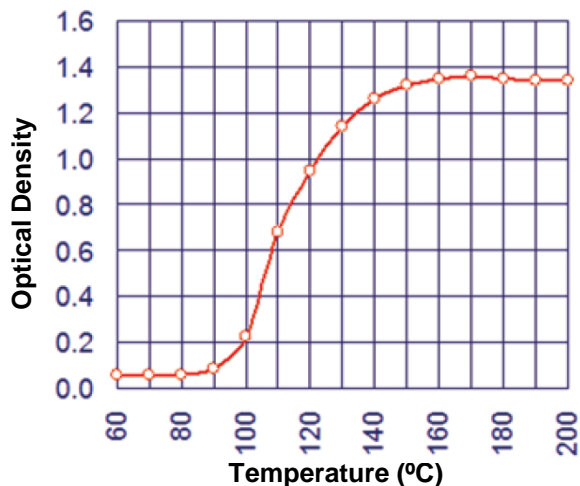


## SENSITIVITY RESULTS

### 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.

## 140LDS - LAMINATED PRODUCT

GRADE	UNIT	G8	G12	G29
Application	°F	10 to 120	-40 to 122	-40 to 122
Temperature	°C	-12 to 49	-40 to 50	-40 to 50
Service	°F	-20 to 120	-65 to 131	-65 to 131
Temperature	°C	-29 to 49	-54 to 55	-54 to 55
Basis Weight	lbs	84 ± 11	83 ± 12	80 ± 12
(24 x 36 x 500)	g/m <sup>2</sup>	137 ± 18	136 ± 19	130 ± 19
Caliper	µm	140 ± 22	140 ± 22	138 ± 22
	mil	5.5 ± 7.0	5.5 ± 7.0	5.4 ± 7.0

Liner: 42 lbs

Caliper: 2.5 mils ± 10% (64 ± 8 µm)

Opacity: 65% Maximum (Photovolt)

**Adhesive Attributes:**

G8 – Tight Removable

G29 – Washable

G12 – Wide Temperature and Permanent

## CERTIFICATES / REGULATIONS / DIRECTIVES

BPA Free

ISO9001

ISO14001

Indirect Food Contact

RICOH ELECTRONICS, INC. DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THE CUSTOMER'S PURCHASE OF OUR PRODUCTS. IT IS CUSTOMER'S SOLE AND EXCLUSIVE RESPONSIBILITY TO TEST AND ENSURE SUITABILITY OF OUR PRODUCTS FOR ITS CUSTOMERS' OR END-USER'S APPLICATION.

## CONTACT INFORMATION

**Copyright 2016 Ricoh Electronics, Inc.**  
 1125 Hurricane Shoals Rd.  
 Lawrenceville, GA 30043  
 All Rights Reserved

**Company Info**  
 ISO14001 / ISO9001 Certified

**Customer Service Department**  
 Toll-Free 1-800-843-7058  
 Toll-Free Fax 1-888-873-7059  
 Worldwide Fax +1-770-613-6478  
 Email: orders@rei.ricoh.com