



## 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**

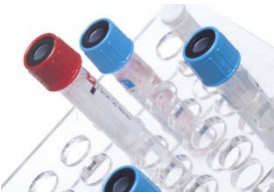
### DESCRIPTION

135WRx is a medium sensitivity polypropylene direct thermal film stock with image durability that resists solvents and a durable base film for tear resistance.

### KEY FEATURES

Medium sensitivity, moderate image preservation properties; resistant to medical solutions; durable polypropylene base film that is tear and water resistant.

## — APPLICATION AREAS —



Laboratory Labels



Wristbands



Medical



Shelf Tags



Industrial

## FACESTOCK / PRESERVATION PROPERTIES

### FACESTOCK PROPERTIES

ITEM		UNIT	SPECIFICATION	TEST METHOD
Basis Weight		lbs (24x36x500 sheets)	29.5 ± 3.7	TAPPI T-410
		g/m <sup>2</sup>	48 ± 6.0	
Caliper		mil	2.4 ± 0.3	TAPPI T-411
		µm	61 ± 7.0	
Image Color			Black	Visual Check
Image Density	(ODU)	Minimum	1.25	X-Rite Densitometer
Tensile Strength	MD	kgf/15 mm Minimum	3.8	TAPPI T-494
	CD	kgf/15 mm Minimum	10.0	
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	257 / 118	

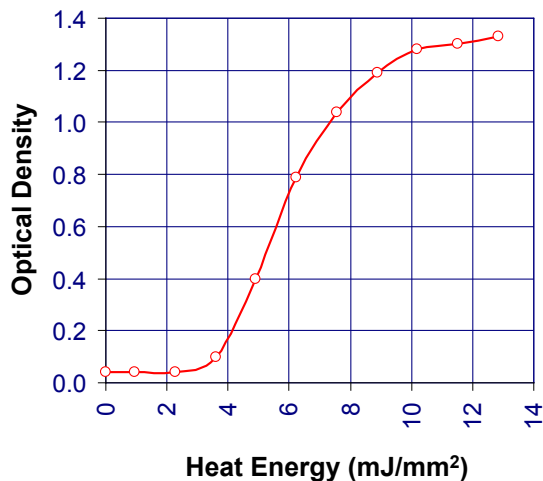
### PRESERVATION PROPERTIES

ITEM	SPECIFICATION		TEST METHOD
Water Resistance	Image	1.10 Minimum	Water Immersion 15 Hours
	Background	0.12 Maximum	
Oil Resistance	Image	1.10 Minimum	40° C, Dry, 15 Hours X-Rite (ODU)
	Background	0.15 Maximum	
Moisture Resistance	Image	1.10 Minimum	40° C, 90% RH, 24 Hours X-Rite (ODU)
	Background	0.15 Maximum	
Heat Resistance	Image	1.10 Minimum	80° C, Dry, 1 Hour X-Rite (ODU)
	Background	0.30 Maximum	
Light Resistance	Image	1.10 Minimum	5000 lx, 100 Hours X-Rite (ODU)
	Background	0.15 Maximum	

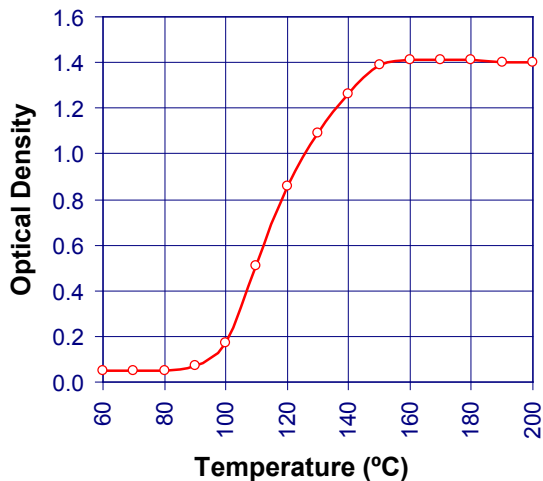


### SENSITIVITY RESULTS

#### 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.

### 135WRx-60 – LAMINATED PRODUCT

GRADE	UNIT	G12
Application	°F	-40 to 122
Temperature	°C	-40 to 50
Service	°F	-65 to 131
Temperature	°C	-54 to 55
Basis Weight	lbs	80 ± 11
(24 x 36 x 500)	g/m <sup>2</sup>	131 ± 18
Caliper	µm	139 ± 21
	mil	5.5 ± 0.8

Liner: 40 lbs  
 Caliper: 2.5 mils ± 10% (64 ± 8 µm)  
 Opacity: 65% Maximum (Photovolt)

**Adhesive Attributes:**  
 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](mailto:orders@rei.ricoh.com)