

N140 PF DIRECT THERMAL

Specifications may change without notice.
Last Update: June 2025 PS-2403 (Rev.4)



PRODUCT FEATURES

N140PF is a phenol-free alternative to the N140LA formulation, featuring high-sensitivity, top-coated direct thermal label stock with G12 and G25 all-temperature permanent adhesives. Designed for demanding applications like weigh scale and shipping labels, meat processing, and product identification, it ensures excellent image preservation and reliable performance across various environments.

APPLICATION AREAS

- Weigh Scale Labels
- Shipping Labels
- Meat Processing
- Distribution and Inventory
- Product ID





FACESTOCK PROPERTIES

Basis Weight	
lbs (24 x 36 x 500 sheets)	43.6 ± 4.3
g/sq m	71 ± 7
Caliper	
mil	3.0 ± 0.3
µm	76 ± 7
Image Density (ODU Minimum)	1.25
Tear Strength (gf Minimum)	
MD	30
CD	35
Tensile Strength (kgf/15 mm Minimum)	
MD	5.4
CD	2.7
Stiffness (g-cm Minimum)	
MD	3.0
CD	2.5
Initial Activation Temperature (°F / °C)	
O.D. = 0.2	212°F / 100°C
Effective Activation Temperature (°F / °C)	
O.D. = 0.8	239°F / 115°C

CERTIFICATIONS

- Indirect Food Contact
- ISO9001
- ISO14001

REGULATORY

-  Phenol Free
-  BPS Free
-  BPA Free
-  No Added PFAS

PRESERVATION PROPERTIES

Oil Resistance

Image	1.10 Minimum
Background	0.15 Maximum
Test Method	40°C, Dry, 15 Hrs, X-Rite (ODU)

Moisture Resistance

Image	1.10 Minimum
Background	0.12 Maximum
Test Method	40°C, 90% RH, 24 Hrs, X-Rite (ODU)

Heat Resistance

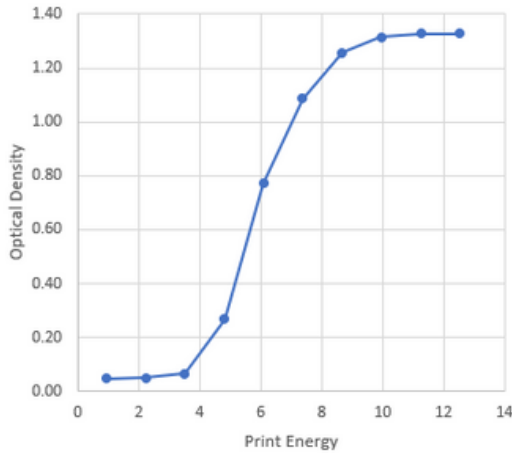
Image	1.10 Minimum
Background	0.30 Maximum
Test Method	80°C, Dry, 1 Hr, X-Rite (ODU)

Light Resistance

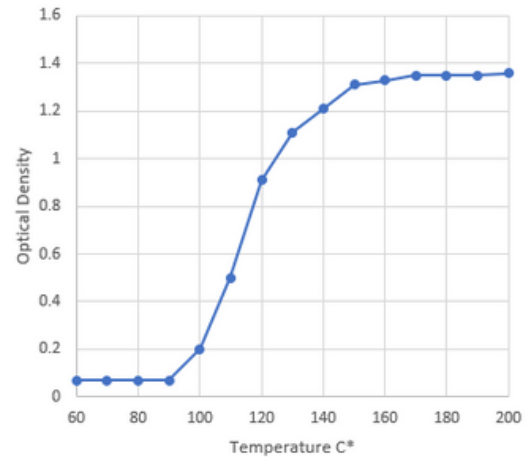
Image	1.10 Minimum
Background	0.15 Maximum
Test Method	5000 lx, 100 Hrs, X-Rite (ODU)

N140 PF DIRECT THERMAL SENSITIVITY RESULTS

DYNAMIC SENSITIVITY



STATIC SENSITIVITY



Sensitivity curves for reference only. Storage Conditions: Below 95°F (35°C) and less than 85% R.H. in a warehouse, avoiding direct sunlight. Dynamic sensitivity tests performed on Markpoint MP104.

LINER AND ADHESIVE PROPERTIES

Caliper G12/G25: 2.4 mils ± 10% (61 ± 6µm)

Caliper G12 AT: 2.1 mils ± 10% (55 ± 7µm)

Liner: 40 lbs (24 x 36 x 500)

G12 Adhesive: Wide Temperature and Permanent (AT)

Opacity: 65% Maximum (Photovolt)

LAMINATED PRODUCT PROPERTIES

Application Temperature	G12 / G25	G12 AT
°F	-40 to 122	-40 to 122
°C	-40 to 50	-40 to 50
Service Temperature		
°F	-65 to 131	-65 to 131
°C	-54 to 55	-54 to 55
Basis Weight (24 x 36 x 500)		
lbs	98 ± 12	90 ± 10
g/sq m	160 ± 19	147 ± 17
Caliper		
mil	6.0 ± 0.7	5.6 ± 0.7
µm	152 ± 18	141 ± 17

CONTACT US

1125 Hurricane Shoals Road,
Lawrenceville, GA 30043

www.REI.Ricoh.com

Email: Orders@rei.ricoh.com

Customer Service:

(800) 843-7059

Toll-Free Fax: (888) 873-7059