

# N140 50HR G12 PF DIRECT THERMAL

Specifications may change without notice.  
Last Update: Oct 2025 PS-2510 (Rev.1)



## PRODUCT FEATURES

N140 50HR G12 PF is the phenol-free alternative to the original N140LA 50HR G12 formulation. It is a high-sensitivity direct thermal label stock with excellent image durability and a 50 lb. high-release liner. Designed for fan fold labels, it offers superior image preservation in various environments, ensuring reliable performance in demanding applications.

## APPLICATION AREAS

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





## FACESTOCK PROPERTIES

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

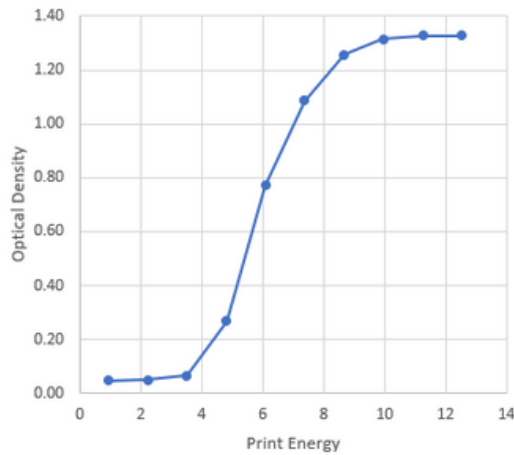
Image	1.10 Minimum
Background	0.30 Maximum
Test Method	80°C, Dry, 1 Hr, X-Rite (ODU)

### Light Resistance

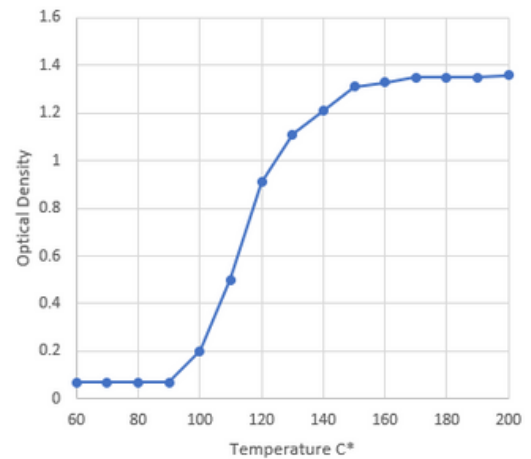
Image	1.10 Minimum
Background	0.15 Maximum
Test Method	5000 lx, 100 Hrs, X-Rite (ODU)

# N140 50 HR G12 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

Liner: 50 lbs (24 x 36 x 500)

Caliper: 2.9 mils ± 10% (75 ± 7µm)

Opacity: 80% Maximum (Photovolt)

G12 Adhesive: Wide Temperature and Permanent

## LAMINATED PRODUCT PROPERTIES

<b>Application Temperature</b>	<b>G12</b>
°F	-40 to 122
°C	-40 to 50
<b>Service Temperature</b>	
°F	-65 to 131
°C	-54 to 55
<b>Basis Weight (24 x 36 x 500)</b>	
lbs	108 ± 11
g/sq m	176 ± 18
<b>Caliper</b>	
mil	6.7 ± 0.7
µm	169 ± 18

## CONTACT US

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