

140LDS PF DIRECT THERMAL

Specifications may change without notice.

Last Update: December 2025 PS-2520



PRODUCT FEATURES

140LDS PF is a phenol-free alternative to the standard 140LDS formulation. It is a high sensitivity polypropylene direct thermal film stock with a 2.3 mil base film thickness, designed for applications requiring exceptional durability and high-quality imaging. Its tear and water-resistant base film ensures reliable performance in demanding environments, making it ideal for applications such as meat processing labels, laboratory labels, shelf tags, and weigh scale labels.

APPLICATION AREAS

- Produce Labels
- Meat Processing
- Wristbands
- Laboratory Labels
- Shelf Tags
- Weigh Scale Labels
- Product ID

FACESTOCK PROPERTIES

Basis Weight

lbs (24 x 36 x 500 sheets)	28 ± 5
g/sq m	45.5 ± 8

Caliper

mil	2.3 ± 0.2
µm	59 ± 6

Image Density (ODU)

1.30

Tensile Strength (kgf/15 mm Minimum)

MD	9.0
CD	15.0

Stiffness (g-cm Minimum)

MD	1.6
CD	1.0

Initial Activation Temperature

(°F / °C)

O.D. = 0.2	212°F / 100°C
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Effective Activation Temperature

(°F / °C)

O.D. = 0.8	239°F / 115°C
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CERTIFICATIONS

- Indirect Food Contact
- ISO9001
- ISO14001

REGULATORY



Phenols Free



BPS Free



BPA Free



No Added PFAS

PRESERVATION PROPERTIES

Oil Resistance

Image	1.20 Minimum
Background	0.15 Maximum
Test Method	40°C, Dry, 15 Hrs, X-Rite (ODU)

Moisture Resistance

Image	1.20 Minimum
Background	0.15 Maximum
Test Method	40°C, 90% RH, 24 Hrs, X-Rite (ODU)

Heat Resistance

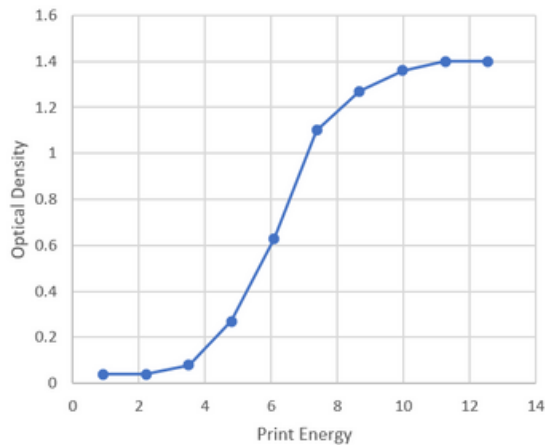
Image	1.20 Minimum
Background	0.20 Maximum
Test Method	70°C, Dry, 24 Hrs, X-Rite (ODU)

Water Resistance

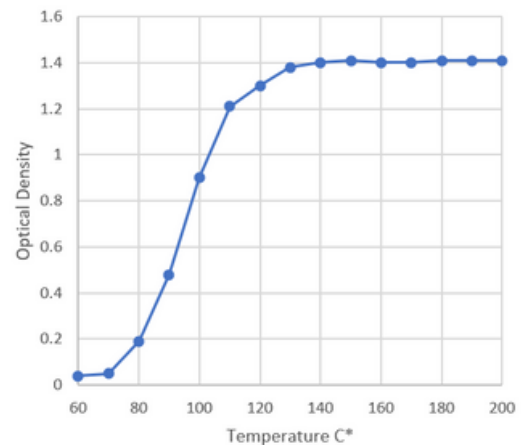
Image	1.00 Minimum
Background	0.12 Maximum
Test Method	Water Immersion, 15 Hrs, X-Rite (ODU)

140LDS 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: 42 lbs (24 x 36 x 500)

Caliper: 2.4 mils ± 10% (61 ± 6µm)

Opacity: 65% Maximum (Photovolt)

G8 Adhesive: : Tight Removable

G12 Adhesive: Wide Temperature and Permanent

LAMINATED PRODUCT PROPERTIES

Application Temperature	G8	G12
°F	10 to 120	-40 to 122
°C	-12 to 49	-40 to 50
Service Temperature		
°F	-20 to 120	-65 to 131
°C	-29 to 49	-54 to 55
Basis Weight (24 x 36 x 500)		
lbs	84 ± 11	83 ± 12
g/sq m	137 ± 18	136 ± 19
Caliper		
mil	5.5 ± 0.9	5.5 ± 0.9
µm	140 ± 22	140 ± 22

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