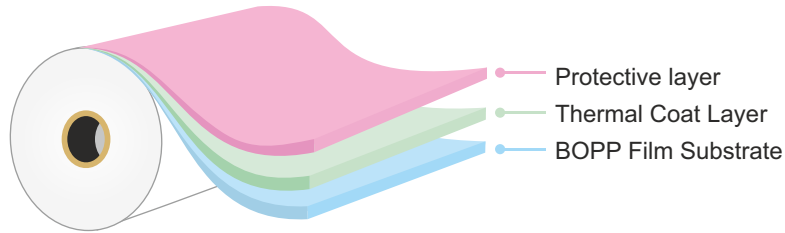


Direct Thermal Printable Film Top Coated

C1049 (DTP) TC

Provisional Data Sheet

Structure



Description

It is BOPP based, Top coated direct thermal printable (DTP) film with high image preservation.

Features

- Suitable to print with UV & water base flexo.
- Excellent rub resistance
- Excellent resistance, to oil , solvent and water
- Dark image quality

Applications

- Airline baggage tags.
- Ready made food labels.
- Industrial bar code applications.
- Retail price marking.
- Logistics labels
- Fruits & Meat label
- Pharmaceutical labels & wrist bands

Properties	Units	Test Method	C1049 (DTP) TC	
Physical Data				
Average Thickness	micron	D-374-C	58	
	gauge		232	
	mils		2.3	
Thickness Variation	% (±)		5	
Unit Weight	g/m ²		41.6	
Yield	m ² /kg	ASTM D-4321	24.0	
	in ² /lb		16873	
Whiteness Index	%	E-313	83	
Initial Activation Temperature (O.D. = 0.2)	°C/°F	CTM	90 / 194	
Effective Activation Temperature (O.D. = 0.8)	°C/°F	CTM	96 / 204.8	
Maximum Density (O.D.=2.0)	°C/°F	CTM	120 / 248	
Image Colour			Black	
Mechanical Data				
Tensile Strength	MD	kg/cm ²	D - 822	650 - 850
	TD			1400 - 1700
Elongation	MD	%	D - 822	140 - 180
	TD			30 - 50
Sensitivity				
Property	Specification	Test Method		
Image Density	1.9 - 2.0	Printer Atlantek 400 at energy density of 16 mj/mm ² and Optical Density measurement done with X-Rite 500 Spectrodensitometer		
Background Density	0.15 min			

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Cosmo Films Limited

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Direct Thermal Printable Film Top Coated C1049 (DTP) TC

Stability Data			
Density at 90% RH (40 °C / 104 °F, 24 hrs)	Image Density	CTM	1.7
	Background Density		
Temp Resistance (60 °C / 140 °F, 24 hrs.)	Image Density	CTM	1.7
	Background Density		
Cryogenic (-33 °C/-27.4°F, 24 hrs.)	Image Density	CTM	1.7
	Background Density		
Water Dip Test - Image (20 °C/60°F)	Image Density	CTM	1.2
Hot Water Resistance (78 °C/172.4°F)	Image Density	CTM	1.2
	Background Density		
Wet Rub Test (water)	Rubbing with cloth 100 times on printed surface	CTM	Pass
Oil Rub Test			Pass
Plasticizer Resistance	Put PVC film on the printed face with pressure of 1.3 kg/m ² at 25 °C for 24 hours		Image Density 1.7

Precautions

1. Storage

- a) Avoid exposure to sunlight, high temperature & high humidity in storage.
- b) Ideal storage conditions 25°C & <50% RH.
- c) Avoid storing in presence of solvents & plasticizers.
- d) Avoid high pressure in storage location.

2. Processing:

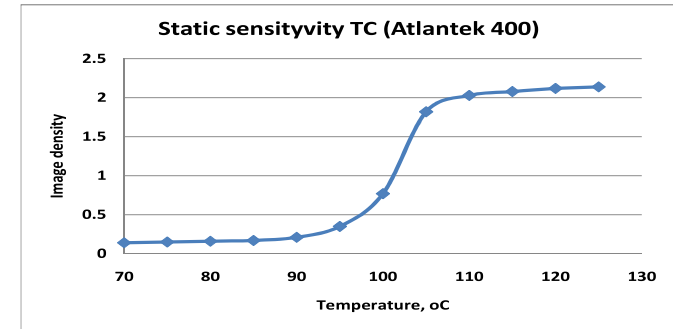
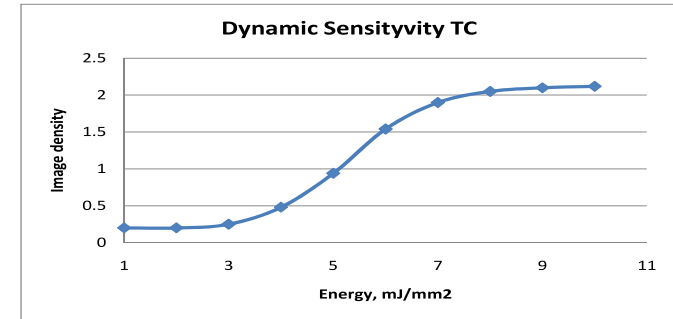
- a) Water based adhesive is recommended. In case of solvent based adhesive, please check the suitability.
- b) Appropriate tests are requested for right selection of inks before printing process.
- c) Take a pre-test to be sure that enough optical density is obtained by your printer.

3. Others:

Don't scratch or press the image side as it may cause potential color problem

Note: This product has standard thermal sensitivity making it suitable for print speed up to 254 mm/s (10 IPS) at energy density of 16 mj/mm² depending on printer settings.

Disclaimer : The information provided above is to the best of knowledge of COSMO FILMS LTD. The values provided are CFL laboratory test results, which are indicative only and provided for guidelines. Do not consider above values as specifications so the product should be tested thoroughly under end use conditions to ensure it meets the requirement of the specific applications.



Recommendation: For best results of image density with 200 DPI printers , printing recommended at 50% darkness levels for 2D (two dimensional) barcodes and 65% darkness levels for 1D (one dimensional) bar codes. Results would be more favorable while printing with (300 DPI printers and above) resulting in higher resolution and printing at lower darkness %.

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