

18900 Panduit Drive Tinley Park, IL 60487

Customer Service: 800-777-3300

TDS: Effective Date: Revision:

GMV20 09APR20

# Thermal Transfer Printable Vinyl Film

This specification is intended to outline the physical and chemical properties of PANDUIT's pressure sensitive thermal transfer printable vinyl material and include the following part numbers and printable material identifiers:

Part Number Prefixes			

Printable Material Suffixes			
VPM-BK			
VXM-BK			

### PRODUCT SPECIFICATIONS:

Material is RoHS compliant (European Union directive 2011/65/EU Description:

and Annex II (EU) 2015/863). Material is a thermal transfer printable

film with a pressure sensitive adhesive.

Print Methods: This material is recommended for thermal transfer printing. Adhesive: Acrylic based, pressure sensitive permanent adhesive.

Standard Colors: White, Yellow

Thickness:  $4.0 \pm 0.5$  mils (substrate and adhesive)

-40°F to 194°F (-40°C to 90°C) Service Temperature Range:

59°F (15°C) Minimum Application Temperature:

**Storage Conditions:** Store at 70°F (21°C) and 50% Relative Humidity.

For cassette products do not exceed 95°F.

**PROPERTIES: PERFORMANCE:** 

Peel Adhesion to Stainless Steel: 40 oz/in width (PSTC-101, 24 hour dwell)

Tensile Strength: MD: 16 +/- 2.0 lbs./inch width (PSTC-131)

TD: 15 +/- 2.0 lbs./inch width (PSTC-131)

MD: 300% +/- 10% (PSTC-131) Elongation:

TD: 700% +/- 10% (PSTC-131)

**UV** Resistance: \*3000 hours no change observed (ASTM G154)

Elevated Temperature Exposure: After 24 hours at 200°F (93.3°C) there was no deterioration of the substrate

Tack: 5.35N (ASTM D-2979)

700 hours at -40°C, no visible change observed Long term low temperature exposure:

Long term high temperature exposure: 700 hours at 90°C, no visible change observed

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Abrasion Resistance:

Taber abraser, CS-10 wheels/250 gm. Wt./500 cycles, no visible change observed (ASTM D4060)

\*3000 hours equates to 5 years of assimilated outdoor exposure.

# CHEMICAL/SOLVENT RESISTANCE:

The testing was conducted at room temperature. Samples were thermal transfer printed on MP100/MP300 printers. Separate sets were conditioned for 24 hours before being immersed in the following solvents for a period of 1 hour and 24 hours. After the samples were removed from the immersed solvents, they were rubbed 10 times with a lint free gauze. Visual observations were noted for any smear or loss of legibility.

#### 1 Hour Immersion

Chemical/Solvent	Visual Observation	
Jet Fuel	No change	
Gasoline	No change	
Methyl Ethyl Ketone	Material disintegrates	
1:1:1 TCE	Loss of print legibility	
Trichloroethylene	Material disintegrates	
409 Cleaner	No change	
Alpha Flux 200L	No change	

## 24 Hours Immersion

24 Hours Hillier stoll		
Chemical/Solvent	Visual Observation	
Isopropyl Alcohol	No change	
Water 150F	No change	
Salt Water	No change	
SAE 30 Motor Oil	No change	
Hydraulic Fluid	No change	
Skydrol	Material disintegrates	
Methanol/Water	No change	
Ethylene Glycol	No change	
ASTM #3 Oil	No change	

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**Technical Data Sheet** 

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**APPROVALS** 

UL Recognized: UL969 File number: MH 64185 CUL Recognized: C22.2 No. 0.15-01 File number: MH 64185

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