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TDS: GMV20
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Technical Data Sheet

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:

Description:	Material is RoHS compliant (European Union directive 2011/65/EU 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 +/- 0.5 mils (substrate and adhesive)
Service Temperature Range:	-40°F to 194°F (-40°C to 90°C)
Minimum Application Temperature:	59°F (15°C)
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)
Elongation:	MD: 300% +/- 10% (PSTC-131) 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)
Long term low temperature exposure:	700 hours at -40^0C, no visible change observed
Long term high temperature exposure:	700 hours at 90^0C, 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

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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APPROVALS

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

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