

Technical Data Sheet

Thermal Transfer Printable Colored Vinyl Film

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

Part Number Prefixes		
TTV*-*		
TCT-*V		

Printable Material Suffixes		
V*1Y		
V*6Y		

PRODUCT SPECIFICATIONS:

Description:	Material is RoHS compliant (European Union directive 2002/95/EC). Material is a thermal transfer printable vinyl film with a pressure sensitive adhesive. This material is intended for interior and exterior markings.
Print Methods:	This material is recommended for thermal transfer printing.
Adhesive:	Acrylic based, pressure sensitive permanent adhesive.
Standard Colors:	White, Blue, Green, Orange, Red, Yellow, Black*, Purple and Gray
Thickness:	4.2 +/- 0.8 mils (substrate and adhesive)
Service Temperature Range:	-58°F to 176°F (-50°C to 80°C)
Minimum Application Temperature:	40°F (4.4°C)
Storage Conditions:	Store at 70°F (21°C) and 50% Relative Humidity.

PROPERTIES:**PERFORMANCE:**

Peel Adhesion to Stainless Steel:	40 oz/in width minimum (PSTC-1, 15 min. dwell)
Tensile Strength:	MD 12 +/- 2.0 lbs./inch width (PSTC-31) TD 10 +/- 2.0 lbs./inch width (PSTC-31)
Elongation:	MD 125% +/- 10% (PSTC-31) TD 250% +/- 10% (PSTC-31)
Gloss:	Gloss at 60 degree angle shall be minimum 8-97 gloss units (GU) per ASTM D2457
UV Resistance:	3000 hours no change observed (ASTM G151)
Elevated Temperature Exposure:	After 8 hours at 150°F (65.5°C) there was no deterioration of the substrate

*For black colored film, use RMR4WH white ribbon.

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The testing was conducted at room temperature. Samples were thermal transfer printed with Panduit RMR4BL/RMER4BL ribbons. Samples were also printed with Panduit RMR4WH/RMER4WH ribbons. 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	
	RMR4BL/RMER4BL	RMR4WH/RMER4WH
Jet Fuel	No change	No change
Gasoline	Loss of print legibility and adhesive bleed	Loss of print legibility and adhesive bleed
Methyl Ethyl Ketone	Material disintegrates	Material disintegrates
1:1:1 TCE	Loss of print legibility and adhesive bleed	Loss of print legibility and adhesive bleed
Trichloroethylene	Material disintegrates	Material disintegrates
409 Cleaner	No change	No change
Alpha Flux 200L	No change	No change

24 Hours Immersion

Chemical/Solvent	Visual Observation	
	RMR4BL/RMER4BL	RMR4WH/RMER4WH
Isopropyl Alcohol	Loss of print legibility	Loss of print legibility
Water 150F	No change	No change
Salt water	No change	No change
SAE 30 Motor oil	No change	No change
Hydraulic Fluid	No change	No change
Skydrol	Material disintegrates	Material disintegrates
Methanol/Water	No change	No change
Ethylene Glycol	No change	No change
ASTM #3 Oil	No change	No change

Approvals:UL Recognized: UL969
CUL Recognized: C22.2 No. 0.15-01File Number: MH 14979
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