

**Technical Data Sheet**

# Thermal Transfer Printable Polyester Film

This specification is intended to outline the physical properties of *PANDUIT*'s pressure sensitive thermal transfer printable tamper-evident silver polyester material and include the following part numbers and printable material identifiers:

Part Number Prefixes		
TTC*YST		

Printable Material Suffixes		
AAT		

**PRODUCT SPECIFICATIONS:**

Description:	Material is RoHS compliant (European Union directive 2002/95/EC). The material is a top coated tamper-evident metallized silver checkerboard matte polyester film with a pressure sensitive adhesive. This material is halogen free.
Print Methods:	This material is recommended for thermal transfer printing.
Adhesive:	Acrylic based, pressure sensitive permanent adhesive.
Standard Colors:	Silver matte
Thickness:	3.4 +/- 0.4 mils (substrate and adhesive). Tamper evident feature of this product becomes permanently non-functional after exposure to 104°F (70°C) temperature.
Service Temperature Range:	-40°F to 302°F (-40°C to 150°C)
Minimum Application Temperature:	50°F (10°C)
Storage Conditions:	Store at 70°F (21°C) and 50% Relative Humidity.

**PROPERTIES:****PERFORMANCE:**

Peel Adhesion to Stainless Steel:	Product shows tampering when removal is attempted by leaving a checkerboard pattern on the application surface. (PSTC-101, 72 hour dwell)
Shear Adhesion:	2 hours (PSTC-107, Procedure A)
Tensile Strength:	MD 36 +/- 3.6 lbs./inch width (PSTC-131) TD 41 +/- 4.1 lbs./inch width (PSTC-131)
Elongation:	MD 80% +/- 15% (PSTC-131) TD 75% +/- 15% (PSTC-131)
UV Resistance:	*3000 hours no change observed (ASTM G154)
Elevated Temperature Exposure:	After 24 hours at 160°F (70°C) there was no deterioration of the substrate
Tack:	250-600 g/cm <sup>2</sup> (ASTM D-2979-71)

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

**Technical Data Sheet****CHEMICAL/SOLVENT RESISTANCE:**

The testing was conducted at room temperature. Samples were thermal transfer printed with Panduit RMR\*BL/RMER\*BL ribbon on the Panduit TDP43MY/TDP43ME printer. 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 for 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	Loss of print legibility
Gasoline	Loss of print legibility
Methyl Ethyl Ketone	Loss of print legibility
1:1:1 TCE	Loss of print legibility
Trichloroethylene	Loss of print legibility
409 Cleaner	No change
Alpha Flux 200L	No change

**24 Hours Immersion**

Chemical/Solvent	Visual Observation
Isopropyl Alcohol	Loss of print legibility
Water 150F	No change
Salt Water	No change
SAE 30 Motor Oil	No change
Hydraulic Fluid	No change
Skydrol	Loss of print legibility
Methanol/Water	No change
Ethylene Glycol	No change
ASTM #3 Oil	Loss of print legibility

**APPROVALS**

UL Recognized: UL969

File number: MH 14576, MH 14979

**LIMITED WARRANTY**

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