

Technical Data Sheet

Panduit GMM1 Material

This specification is intended to outline the physical and chemical properties of *PANDUIT*'s GMM1 material and include the following printable material identifiers:

Printable Material Prefix		
PPM*		

PRODUCT SPECIFICATIONS:

Description:	Material is RoHS compliant (European Union directive 2002/95/EC). GMM1 consists of a flame retardant polyester film.
Adhesive:	Acrylic based, pressure sensitive permanent adhesive.
Standard Colors:	White
Thickness:	3.3 +/- 0.2 mils(substrate and adhesive)
Service Temperature Range:	Minus 30F to 266F (Minus 1C to 130C)
Minimum Application Temperature:	40F (4C)
Storage Conditions:	Store at 70°F (21°C) and 50% Relative Humidity.

PROPERTIES:**PERFORMANCE:**

Peel Adhesion:	25 oz/in minimum (PSTC 101, 15 min dwell)
Tensile Strength:	MD: 31 +/- 3.0 lbs./inch width (PSTC-131)
Elongation:	MD 50% +/- 5% (ASTM D-1000)
UV Resistance:	*3000 hours no change observed (ASTM G154)
Elevated Temperature Exposure:	After 8 hours at 150°F (65°C) there was no deterioration of the substrate.
Flammability:	Material is flame retardant and conforms to UL 510, also recognized as UL 94 VTM-0 per UL 94

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

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

The testing was conducted at room temperature. Test performed according to PSTC-101, ASTM D-543-87 and ASTM D-896-90.

The testing was conducted at room temperature and performed with reference to the above test methods. Printed samples were cut 1" wide and were applied to stainless steel panels and conditioned for 24 hours. The samples were then immersed in the specified reagents for 5 immersions using the following cycle: a 10 minute immersion time followed by a 30 minute recovery time. After the fifth immersion, the samples were conditioned for 24 hours before testing. Percent retention of performance was based on a 48 hour adhesion value of 30 oz/inch.

Chemical/Solvent	Visual Observation	Percent (%) Retention of Performance
Distilled water	No effect on print or adhesive	99%
ASTM Reference Fuel B (70% Iso-octane, 30% toluene)	No effect on print, slight adhesive bleed	78%
Acetone	No effect on print, slight adhesive bleed	83%
Alcohol Mixture (50% Ethyl alcohol, 30% Methyl alcohol, 20% Water by volume)	No effect on print or adhesive	95%
1,1,1 Trichloroethane	No effect on print, slight adhesive bleed	89%
ASTM # 3 Oil	No effect on print or adhesive	106%
Methyl Ethyl Ketone	No effect on print, slight adhesive bleed	84%
Super Agitene	No effect on print, slight adhesive bleed	78%
Jet-A Fuel	No effect on print, slight adhesive bleed	78%
Skydrol	No effect on print, slight adhesive bleed	89%
SAE 30 Motor Oil	No effect on print or adhesive	100%
MIL Oil 56506A	No effect on print or adhesive	100%

PSTC: Pressure Sensitive Tape Council (USA)

ASTM: American Society for Testing and Materials (USA)

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