

TDS: Effective Date: Revision:

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* | | | |
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PRODUCT SPECIFICATIONS:

| Description: | Material is RoHS compliant (European Union directive 2002/95/EC). GMM1consists 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: | |
| PROPERTIES: Peel Adhesion: | PERFORMANCE: 25 oz/in minimum (PSTC 101, 15 min dwell) | |
| | | |
| Peel Adhesion: | 25 oz/in minimum (PSTC 101, 15 min dwell) | |
| Peel Adhesion: Tensile Strength: | 25 oz/in minimum (PSTC 101, 15 min dwell) MD: 31 +/- 3.0 lbs./inch width (PSTC-131) | |
| Peel Adhesion: Tensile Strength: Elongation: | 25 oz/in minimum (PSTC 101, 15 min dwell) MD: 31 +/- 3.0 lbs./inch width (PSTC-131) MD 50% +/- 5% (ASTM D-1000) | |
| Peel Adhesion: Tensile Strength: Elongation: UV Resistance: | 25 oz/in minimum (PSTC 101, 15 min dwell) MD: 31 +/- 3.0 lbs./inch width (PSTC-131) MD 50% +/- 5% (ASTM D-1000) *3000 hours no change observed (ASTM G154) | |

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



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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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Panduit:

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