



76971 3M TT5 MS PET50 TRIANGLES-350E/20-90WG

Matte Silver Thermal Transfer Polyester Security Label Material

Product Data Sheet

Issued	:	December 2002
		Provisional

Physical Properties

Not for specification purposes
(Calipers are nominal values)

Facestock	56 micron (2.2 thou) Matte Silver Triangle Void Polyester
Adhesive	20 micron (0.8 thou) permanent, high tack, UV stable acrylic adhesive.
Liner	77 micron (3 thou), 90 g/m ² White Densified Glassine
Shelf Life	24 months from date of manufacture by 3M when properly stored at 22°C and 50% relative humidity.

Features:

- TT5 Matte topcoat provides a smooth matte surface, giving excellent thermal transfer images at reduced burn temperature settings, resin ribbons are recommended for optimum durability. The matte coating is extremely resistant to degradation from scuffing, chemicals, moisture, and wide temperature fluctuations. The topcoat also provides improved ink anchorage for traditional forms of press printing
- 350 E 3M's most universal labelstock adhesive, excellent adhesion, even on Low Surface energy substrates combined with excellent temperature and chemical Resistance.
- Tamper Indicating – designed to provide a triangular voiding pattern in the facestock when removal is attempted.
- The compact format of the pattern permits manufacture of small labels.
- High tack acrylic adhesive for high bond to most surfaces. Compatibility must be determined.
- Durable polyester facestock for harsh environments
- 90 g/m² densified glassine liner assures consistent die cutting.

Application Ideas:

- Barcode labels and rating plates.
- Non transferable labels for automotive, appliance and electronics industries
- Tamper indicating labels and seals for medical and pharmaceutical industries

Date: December 2002
 76971 3M TT5 MS PET50 Triangles-350E/20-90WG
 Thermal Transfer Polyester Security Label Material

Performance Characteristics

Not for specification purposes

Adhesive Performance	<p>Suitable for application to a variety of clean* surfaces, e.g.</p> <table border="0"> <tr> <td data-bbox="743 398 911 506">Stainless Steel ABS Powder Coating Polycarbonate</td> <td data-bbox="1034 398 1161 479">Aluminium Polystyrene Phenolic</td> </tr> </table>	Stainless Steel ABS Powder Coating Polycarbonate	Aluminium Polystyrene Phenolic
Stainless Steel ABS Powder Coating Polycarbonate	Aluminium Polystyrene Phenolic		
Environmental Performance	<p>The topcoat is designed to have excellent resistance to UV, moisture and a variety of chemicals, e.g. diesel fuel, petroleum spirits, oil, anti-freeze, mild acids and alkalis, ethanol, IPA, hexane, water, soap solution.</p>		
Temperature Range	<p>Short term Service Temperature -40°C to 150°C</p> <p>Prolonged exposure to temperatures exceeding 80°C may result in the full or partial non-functioning of the Triangle destruct pattern</p> <p>Minimum application temperature +5°C</p>		

Processing

Printing:

Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. High definition thermal transfer images can be printed using resin or wax-resin ribbons on a variety of printers. It is printable by all standard roll-processing methods including flexography, hot stamp, letterpress and screen-printing.

Die Cutting:

Rotary die cutting is recommended. Fan folding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.

Packaging:

Finished labels should be stored in plastic bags

Special Considerations

*For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and IPA

NOTE: When using solvents, read and follow the manufacturer's precautions and directions for use

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 5°C can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure.

Care should be taken not to disturb the tamper indicating feature by pre-destructing the void pattern when manually removing the label from the liner. Slowly remove the liner from the label at a 90° angle.

The tamper indicating mechanism (i.e. the Triangle pattern) depends upon adequate adhesion of the label to the substrate. A sufficient bond may not develop on all surfaces due to low surface energy or contaminated surfaces (mold release). Therefore, it is important to determine the suitability of 76971 in the intended application by carefully pre-testing before the application process has begun.

The primary function of 76971 Label Stock is to affect a non-transferable (non-reusable) label or seal by causing the Triangle pattern to appear on the facstock surface when removal is attempted.

As a result of the primary function described above a Triangle pattern may also be transferred to the application surface. This message is a secondary rather than a permanent indication of tampering since the Triangle pattern transferred to the application surface can be removed by rubbing or by solvent wiping.

Caution should be exercised to avoid covering the surface of the label with opaque graphics to the extent that the Triangle pattern is hidden by the graphics and the effectiveness of the label or seal is lessened.

3M is a trademark of the 3M Company.

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

* Trademarks listed are the property of their respective owners



Tapes & Adhesives Group

© 3M United Kingdom PLC 2002

3M United Kingdom PLC
 3M Centre, Cain Road,
 Bracknell, Berkshire,
 RG12 8HT

Product Information :
 Tel 0870 60 800 50
 Fax 0870 60 700 99

3M Ireland
 3M House, Adelphi Centre,
 Upper Georges Street,
 Dun Laoghaire, Co. Dublin,
 Ireland

Customer Service :
 Tel (01) 280 3555
 Fax (01) 280 3509