



# 7860EH 3M TT2 GW PET50-300E-90WG

## Thermal Transfer Polyester Label Material

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### Product Data Sheet

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<b>Issued</b>	:	<b>May 2006</b>
<b>Supersedes</b>	:	<b>June 2004</b>

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#### Physical Properties

Not for specification purposes  
(Calipers are nominal values)

<b>Facestock</b>	50 micron Gloss Radiant White polyester
<b>Adhesive</b>	20 micron #300 E Acrylic
<b>Liner</b>	77 micron, 90 g/m <sup>2</sup> White Densified Glassine
<b>Shelf Life</b>	24 months from date of manufacture of product when properly stored between 22°C and 50% relative humidity.

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#### Features:

- Facestock is topcoated for thermal transfer printing. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing.
- 300E adhesive bonds well to a wide variety of substrates including metals, high surface energy (HSE) plastics and low surface energy (LSE) plastics. It is ideal for applications requiring high initial adhesion especially to LSE plastic surfaces.
- 90 g/m<sup>2</sup> densified glassine liner assures consistent die cutting.

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#### Application Ideas:

- Barcode labels and rating plates.
- Property identification and asset labelling in harsh environments.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable, electronic and sporting goods.

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**Performance Characteristics**  
 Not for specification purposes

Adhesion	90°Peel Adhesion, Test procedure FTM 2			
	Initial (20 Minute Dwell/RT)		Ultimate Adhesion 72 Hours Dwell at 70° C	
	N/10mm	Oz/In	N/10mm	Oz/In
Aluminium	4.2	38	5.6	50
Stainless Steel	4.5	41	5.6	50
Phenolic	4.3	39	5.4	48
ABS	4.6	41	5.5	50
Polycarbonate	5.0	45	5.3	48
Polystyrene	4.7	42	5.1	46
Polypropylene	4.4	40	4.7	42
HD Polyethylene	3.0	27	3.6	32
LD Polyethylene	3.5	32	3.4	31
Powder Coating	3.0	27	5.2	47

Surface	Conditioned for 3 Days at - 40°C	
	90° Peel	
	N/10mm	Oz/In
Aluminium	4.3	39
Stainless Steel	4.9	44
Phenolic	4.7	42
ABS	5.2	47
Polycarbonate	5.0	45
Polystyrene	5.0	45
Polypropylene	4.8	43
HD Polyethylene	3.5	32
LD Polyethylene	5.0	45
Powder Coating	4.0	36

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**Performance  
 Characteristics Contd.**

<b>Temperature Resistance</b>	149°C for 24 hours:	no significant visual change 0.7% MD shrinkage 0.9% CD shrinkage
	-40°C for 3 days:	no significant visual change
<b>Humidity Resistance</b>	24 hours at 38°C and 100% relative humidity	no significant changes in appearance or adhesion

<b>Environmental Performance</b>	The properties defined are based on four hour immersions at room temperature 22°C unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 90° peel angle (FTM 2) at 305 mm/min.			
<b>Chemical Resistance</b>	<b>Adhesion to Stainless Steel</b>		<b>Appearance</b>	<b>Edge Penetration</b>
<b>Chemical</b>	<b>N/10mm</b>	<b>Oz/In</b>	<b>Visual</b>	<b>Millimetres</b>
<b>Heptane</b>	3.8	34	No change	5
<b>Petrol</b>	3.2	29	No change	4
<b>Diesel</b>	4.8	43	No change	1
<b>SAE 15W40 Engine Oil</b>	5.5	50	No change	0
<b>Dot 4 Brake Fluid</b>	5.6	50	No change	0
<b>Screen Wash</b>	7.0	63	No change	0
<b>IPA</b>	5.3	48	No change	1
<b>Toluene</b>	3.1	28	No change	5
<b>MEK</b>	3.2	29	No change	5
<b>Lemsolve</b>	5.0	45	No change	2
<b>Teepol Detergent</b>	3.6	32	No change	0
<b>PH 4</b>	7.0	63	No change	0
<b>PH 10</b>	6.6	59	No change	0
<b>409 Solution</b>	6.4	58	No change	0

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### Agency Listing Information

#### Thermal Transfer Printing:

Suitable for thermal transfer printing with various ribbons including, but not limited to:

Armor: AXR-8, AXR 600, AXR7+  
 Ricoh™: B120EC, B110CX  
 Sony™: TR4570, TR6070, TR6075, TR5070  
 Zebra: 4800, 5095, 5100  
 Dai Nippon: R510  
 Astromed: RY, R5  
 Kurz: K501

### Processing

#### Printing:

Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. It is printable by all standard roll-processing methods including flexography, hot stamp, letterpress, and screen-printing.

#### Die Cutting:

Rotary die cutting is recommended. Fanfolding 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 isopropyl alcohol.

**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.

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### Tapes & Adhesives Group

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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