



# 7874EC 3M TT3 MW PET50-350E/46-65DWG

## Thermal Transfer Polyester Label Material

---

### Product Data Sheet

---

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

---

#### Physical Properties

Not for specification purposes  
(Calipers are nominal values)

<b>Facestock</b>	56 Micron Matte White polyester
<b>Adhesive</b>	46 micron 350E Acrylic
<b>Liner</b>	56 micron, 62 g/m <sup>2</sup> White Densified Double-sided Glassine
<b>Shelf Life</b>	24 months from date of manufacture of product when properly stored between 22°C and 50% relative humidity.

---

#### Features:

- TT3 Matte topcoat provides the advantages of matte coating combined with a surface that is smooth enough for thermal transfer printing. High abrasion resistance combined with excellent chemical resistance of the thermal transfer image, even against aggressive chemicals like Brake fluid. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing
- 350E 3M's most universal labelstock adhesive, excellent adhesion, even on low surface energy substrates combined with excellent temperature and chemical resistance.
- 46 micron adhesive coat weight for excellent adhesion to textured surfaces
- 65 g/m<sup>2</sup> densified double-side glassine liner assures consistent die cutting. The double-side liner improves ease of dispensing.
- UL and cUL recognized (File Number MH18072)

---

#### 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.

Date: June 2006  
 7874EC 3M TT3 MW PET50-350E/46-65DWG  
 Thermal Transfer Polyester Label Material

**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	6.9	62	9.4	85
Stainless Steel	7.4	67	11.0	99
Phenolic	6.8	61	8.5	77
ABS	6.9	62	8.9	80
Polycarbonate	7.1	64	8.2	74
Polystyrene	6.9	62	7.5	68
Polypropylene	5.4	49	7.3	66
HD Polyethylene	4.1	37	5.1	46
LD Polyethylene	5.4	49	5.8	52
Powder Coating	6.3	57	9.2	83

Surface	Conditioned for 3 Days at - 40°C	
	90° Peel	
	N/10mm	Oz/In
Aluminium	6.3	57
Stainless Steel	8.0	72
Phenolic	6.8	61
ABS	7.5	68
Polycarbonate	7.4	67
Polystyrene	7.5	68
Polypropylene	6.4	58
HD Polyethylene	4.0	36
LD Polyethylene	5.1	46
Powder Coating	7.7	69

Date: June 2006  
 7874EC 3M TT3 MW PET50-350E/46-65DWG  
 Thermal Transfer Polyester Label Material

**Performance  
 Characteristics Contd.**

<b>Temperature Resistance</b>	149°C for 24 hours:	no significant visual change 0.4% MD shrinkage 0.6% CD shrinkage
	300° C for 1 min:	no significant visual change <1% 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>
Heptane	8.2	74	No change	3
Petrol	6.0	54	No change	3
Diesel	6.1	55	No change	1
SAE 15W40 Engine Oil	7.4	67	No change	0
Dot 4 Brake Fluid	7.8	70	No change	1
Screen Wash	7.1	64	No change	0
IPA	6.8	61	No change	1
Toluene	5.2	47	No change	4
MEK	5.4	49	No change	4
Lemsolve	6.2	56	No change	2
Teepol Detergent	7.4	67	No change	0
PH 4	6.6	59	No change	0
PH 10	7.2	65	No change	0
409 Solution	6.6	59	No change	0

## Agency Listing Information

### Thermal Transfer Printing:

UL and cUL recognized with the following thermal transfer ribbons

Armor: AXR-8, AXR 600, AXR7+  
 Ricoh™: B110CX, B120EC, B110CR  
 Sony™: TR5070, TR4570, TR6070, TR6075  
 Astromed: R5, RY  
 Kurz: K501  
 Zebra: 4800, 5095, 5100

## 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. Please refer to Technical Service Bulletin Guide to converting 3M Label Materials with 350E adhesive

### 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.

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 2006

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