



# Computer Imprintable Sheet Label Materials

7980 • 7982 • 7983

0910  
page 1 of 4

## Technical Data

July 2, 1998

### Product Description

3M™ Computer Imprintable Sheet Label Materials are polyester films with a unique matte surface treatment. This surface accepts printed images from computer data processing printers, typewriters, markers and ballpoint pens. 3M 7982 material is coated with 3M's #400 high tack acrylic adhesive. 3M 7980 and 7983 materials are coated with 3M's #300 high strength acrylic adhesive. Each includes a 90# layflat polyethylene coated bleached kraft paper liner for easy sheet processing.

### Features

Ink receptive matte coating:	Increases ink adhesion and durability. Variable information can be added by user (computer printer, typewriter, marker, etc.).
2.3 mil and 3.3 mil polyester film:	Matte white appearance (2.3 mil white). Aluminum appearance (3.3 mil silver).  Durability and chemical resistance.
#400 high tack acrylic adhesive:	Increased adhesion to many textured, die-cast surfaces. Excellent for applications below 32° F (0° C). (Properties influenced by 2.0 mil adhesive caliper.)
#300 high strength acrylic adhesive:	High bond strength to most surfaces, including many low surface energy plastics.
90 lb. layflat liner:	Excellent sheet processability.

### Product Construction

Product	Color	Adhesive Thickness (Approximate)	Facestock Thickness (Approximate)	Liner Thickness (Approximate)	Total Thickness (Approximate)
7980	White	0.8 mil (20 microns)	2.3 mils (58 microns)	6.7 mils (170 microns)	9.8 mils (249 microns)
7982	White	2 mils (51 microns)	2.3 mils (58 microns)	6.7 mils (170 microns)	11 mils (279 microns)
7983	Silver	0.8 mil (20 microns)	3.3 mils (84 microns)	6.7 mils (170 microns)	10.8 mils (274 microns)

**Typical Properties  
and Performance**

**#300 High Strength Acrylic Adhesive:**

#300 acrylic adhesive bonds to most metal, plastic, and painted surfaces. Typical adhesion values are shown below (180° peel adhesion after 3 days dwell):

Test Method: ASTM D 3330

	<u>(oz./in. of width)</u>	<u>(N/100 mm of width)</u>
Aluminum	77	84
Stainless Steel	83	91
Painted Metal (automobile acrylic)	54	59
UPVC plastic	82	89
ABS plastic	75	82
Acrylic plastic	82	89
Polypropylene	62	68
Polyethylene	56	61

Note: These values are typical and should not be used for specification purposes.

**Minimal edge penetration of fluid after 4 hour immersion exposure to:**

- a. Hot engine oil @ 250° F (121° C): less than 0.095" (2.4mm) penetration
- b. Engine coolant @ 200° F (93.3° C) (50/50 water and glycol solution): negligible penetration
- c. Gasoline at room temperature: less than 0.190" (4.8mm) penetration
- d. Windshield washer solution @ room temperature: negligible penetration
- e. Brake fluid at room temperature: negligible penetration
- f. Wetting agent solution @ 200° F (93.3° C): negligible penetration

**Dimensional change less than 0.025" (0.64mm) after exposure to:**

- a. Atlas XW-W Weather-ometer for 96 hours
- b. Oven aging for 7 days @ 150° F (65.6° C)
- c. 96 hours @ 100° F and 100% R.H.

**#400 High Tack Acrylic Adhesive:**

#400 acrylic adhesive is designed to bond to surfaces at temperatures as low as 0° F (-18° C).

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**Typical Properties and Performance**  
(continued)

**Facestock:**

The matte surface has been formulated to accept “ink” from various printing methods such as letterpress, screen flexo-graphic, offset, and gravure processes and imprinting from computer terminals and printers, typewriters, and marking pens and pencils.

Typical product performance shows no blistering, wrinkling, loss of legibility (when flexo printed and computer imprinted) or color change after:

- a. 96 hours of exposure to 100% R.H. and 100° F
- b. 7 days @ 230° F (110° C)
- c. 5 cycles of 30 minutes @ 250° F (121° C), 15 minutes @ room temperature, 30 minutes @ -20° F (-29° C) and 15 minutes @ room temperature.
- d. 4 hours of immersion in:
  1. 250° F (121° C) engine oil
  2. 200° F (93° C) engine coolant
  3. Room temperature gasoline
  4. Room temperature windshield washer solution
  5. 200° F (93° C) wetting agent
  6. Room temperature brake fluid

Printing and imprinting on the matte surface is not significantly affected by the abrasion of a Taber Abraser Model 503 test instrument. The Abraser is a test instrument designed to evaluate the resistance of surfaces to rubbing abrasion. Performance here is judged in terms of legibility after the action of CS-10 wheels with a 500 gram load for 100 abrading cycles.

**Liner:**

The liner used for the Computer Imprintable Marking System for sheet processing is a 90# polycoated both sides kraft liner. Its nominal thickness is 6.7 mils (170 microns). This liner, because of its layflat and moisture resistant characteristics, is ideally suited for letterpress, flexo, and screen printing process. Basis weight is a nominal 90 lbs. in 24" x 36" x 500 sheet ream (146.5 g/m<sup>2</sup>).

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**Application Ideas**

- Rating information plates
- Durable instruction markings
- Nameplates
- General identification requirements where lightweight, inexpensive, and durable marking systems are needed

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**Shelf Life**

Product retains its performance and properties for at least two years from date of manufacture if properly stored at 72°F (22°C) and 50% relative humidity.

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**Important Notice**

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