Tamper Evident Computer Imageable Polyester Label Stock 7866

Product Data Sheet

Updated : July 2000
Supersedes : March 1995

Product Description

3M 7866 is a gloss white top coated polyester label stock suitable for the production of electronically generated alphanumeric or bar code labels via a thermal transfer printer. The product is Tamper indicating, ideal for security labelling

Physical Properties
Not for specification purposes

Facestock	2.0 thou (50 micron) Gloss White Polyester
Destruct Pattern	VOID
Adhesive	0.8 thou (20 micron #300 High Strength Acrylic
Liner	90 g/m (55#) 3.1 thou (77.5 micron) White Densified Kraft
Shelf Life	24 months from date of manufacture by 3M if stored at room temperature condition in cool, dry and sun protected room.

Features:

- Tamper evident, designed to provide a VOID message in the facestock when removal is attempted.
- The compact format of the VOID message permits manufacture of small labels i.e 12.5 mm 32 mm (“ x 1“).
- Top coated polyester, provides excellent anchorage for a wide variety of inks.
- Computer imageable surface part of proven line top coatings designed to accept thermal transfer printing.
- # 300 “Hi-Strength” Acrylic adhesive, gives high initial adhesion to plastics, metals and painted surfaces.
- Uniform caliper densified kraft liner provides consistent die-cutting.

Applications

- Thermal transfer printing.
- Durable bar code and alphanumeric labels, including outdoor labelling.
- Security Asset Labelling.
- Non transferable labels for the automotive, electrical appliance and electronics industries.
- Tamper evident label and seals for the medical and pharmaceutical industries.

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Liner Release	**180° Liner Removal from Facestock, 229 mm/min stripping speed, 25mm width sample.** **Gram/25mm - 25 maximum**

Adhesive Performance
Not for specification purposes

Suitable for application to a wide range of clean surfaces.

Stainless Steel	Painted Metal	ABS
HDPE	Polypropylene	Nylon
Polycarbonate	Polyester	Glass

Assume all surfaces to which 7866 will be applied are contaminated - metals may be oily or dusty; plastics may be coated with mould release agents, dirt, etc. Any surface contaminate will adversely affect the adhesion and the destruct message; therefore, it must be removed prior to application by solvent wiping.

Solvent Wiping

- Wet the application surface with a mild solvent such as Isopropyl Alcohol (IPA) or Heptane and wipe thoroughly.
- Dry the surface with a lint free cloth before the solvent evaporates from the surface.
- CAUTION: Consult the manufacturer's Material Safety Data Sheet for proper handling and storage of solvents.

Resistance to Chemicals

Bond is secure when exposed to the following :	
Gasoline	**1 hour at room conditions**
Auto Oil	**72 hours at 49°C**
Weak Alkali	**4 hours at room conditions**
Weak Acid	**4 hours at room conditions**
MEK	**1 hour at room conditions**
Freon TF	**1 hour at room conditions**
NaCl Solution	**72 hours at room conditions**

Water Resistance

Withstands exposure to water at room temperature for 72 hours

Humidity Resistance

Withstands exposure to 35C and 95% R.H for 168 hours.

Temperature Resistance

Withstands exposure from -40°C to 121°C

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Processing

Printing:
This product is suitable for thermal transfer printing, but must be tested with chosen ribbon/printer combination under actual end user conditions.

Top coating provides excellent anchorage to a wide range of flexographic, hot-foil and letterpress links. Nitrocellulose and vinyl/acrylic flexo links are suggested.

Die-cutting: Rotary die cuttable.

Dispensing: Designed for manual or semi - automatic applications.

Application Recommendations

Temperature of substrate should be 10º C or above. For best results the substrate should be at room temperature. Substrates can be pre-heated. This is typically done for surfaces below 10ºC.

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

The primary function of 3M™ 7866 is to effect a non-transferrable label or seal by causing the VOID message to appear on the facestock surface when removal is attempted. As a result of the primary function described above a VOID message is also transferred to the application surface. This message is a secondary rather than permanent indication of tampering since the Void message transferred to the application surface can be removed by hand rubbing or by solvent wiping.

Application Pressure

Sufficient application pressure and dwell time is required to develop adhesion to assure VOID message appears both in the facestock and the substrate upon removal or upon attempted removal through tampering. Higher initial bonds can be achieved through increased application pressure such as a firm hand or squeegee pressure.
Dwell Time: 24 Hours at room temperature 22C (72F) before testing

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