



Specification for Pressure Sensitive Adhesive Label Stock for Application to Metal Storage Furniture and Metal, Plastic, Paper, or Boxboard Housings for Thermal Transfer Printers

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I. Scope:

Thermal Transfer Printable Label Material for application to housing substrates, including plastic, paper, box-board, or metal, as well as metal shelving. Applicable printer and ink-ribbon models, label configuration and dimensions will be specified in the procurement document.

Applications: Barcode or other labels affixed to metal, plastic, paper, or box-board substrates for housing and storage.

NOTE: If the label will be placed on a curved substrate (such as a film can), a polypropylene face-stock is preferred, while either a polyester or polypropylene face-stock can be used for labeling flat surfaces

II. Requirements

1. Composition: The face-stock material must be a polyester or polypropylene substrate bearing an acrylic polymer adhesive with polyester release liner.

A. Face-Stock Options:

1. **Polyester:** Clear, colorless, or white opaque film, 1-2 mil thick. The polyester must be biaxially oriented, non-recycled film with no plasticizers added.
2. **Polypropylene:** Clear, colorless, or white opaque film, 1-2 mil thick, biaxial orientation preferred. The polypropylene must not contain plasticizers.

B. Adhesive

The pressure-sensitive adhesive layer must possess high permanence characteristics such that labels, once applied, remain attached permanently and can be removed only with difficulty. The adhesive must be clearly identifiable as an acrylic polymer or copolymer by its infrared spectrum.

2. Bond Strength: The adhesive must exhibit sufficient bond strength for the label to support a test weight of 200 grams for 10 minutes for a sample of 1 by 2.5 inches. The test procedure is a 90-degree peel test modified from ASTM D2860/D2860M-04, Procedure B, in which the test substrate is metal, plastic, paper, and paper board.



3. Other Label Properties:

- A. The label face-stock should provide a proper surface characteristics, so must be able to accept and retain a clean, legible, abrasion-resistant image with good ink adhesion from qualified thermal transfer printers and ink-ribbons.
- B. The label stock must be compatible with hard-resin thermal transfer ink ribbons; wax or wax-resin ribbons are not acceptable.
- C. The release liner must allow for easy and complete peeling of the face-stock without shearing of the adhesive layer.
- D. The label stock must not emit odors deemed detrimental to the work and/or storage environment in NARA according to TAPPI T483.

4. Workmanship

- A. The label sheet must lie flat without any curling, and permit problem-free self-feeding from a stacking paper tray.
- B. All label edges will be cut square and clean, and of the appropriate size(s) specified in the purchase order.
- C. Dimensions will be specified on the purchase order.

RESPONSIBILITY FOR TESTS

The Contractor is responsible for quality control to ensure the specifications of this contract are met. The Contractor shall provide test results to the Contract Specialist (CS) and/or Contracting Officer (CO), **for each production lot** used to provide supplies under this contract. The test results shall display, at a minimum, the characteristics listed below and shall be provided at least 30 days prior to shipping any items from the production lot under this contract. The Contractor may use his or her own facilities or any commercial laboratory certified to run quality assurance test methods listed below. The National Archives and Records Administration (NARA) reserves the right to perform quality assurance at any time during the contract where such tests are deemed necessary to assure that supplies and services conform to the specifications. Therefore, ten samples of each item purchased shall be sent to the CS within 14 days after award of the contract. Additionally, the Contractor shall provide a sample of a new production lot at any time, upon request of the Government.



Table of QC Test Items and Specifications

Test Items	Spec. Targets	Notes (test methods, test conditions, etc.)
Composition	Polyester or polypropylene films, with acrylic adhesive	FTIR
Adhesive Bond Strength	Sample of 1 by 2.5 in will support 200 g for 10 min In a 90° Peel Test	ASTM D2860/D2860M-04, Procedure B
No off-gassing/odors	PASS	TAPPI T-483

Revision note:

This is a revision of May 2013 previously reformatted in September 2010.
