

**Library of Congress Preservation Directorate**  
**Specification Number 500-532 – 09**  
**Specifications for Polyester: Poly(ethylene-terephthalate)**  
**Three Sides Sealed Enclosures: Short Side Open**

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## **1. Composition and Chemical Requirements**

### **1.1 Content**

The polyester must be a clear, colorless, [biaxially oriented/stressed/drawn] poly(ethylene-terephthalate), [PET] film.

### **1.2 Impurities**

The clear and colorless PET film must not contain any plasticizer, surface coatings, UV inhibitors, or absorbents, and must be guaranteed to be non-yellowing with natural aging. As received, the film must not contain any coloring agents.

## **2. Physical and Performance Requirements**

### **2.1 Thickness**

The thickness of the film must meet the requirement specified on the purchase order. Typical thicknesses for enclosures are 3, 4, and 5 mil.

### **2.2 Surfaces**

The film surface must be free of dents, dings, fingerprints, scratches, abrasions, inclusions or other imperfections.

### **2.3 Seals**

Seals must be done by edge welding unless otherwise specified on the purchase order. All seals must be complete, clear, and continuous. The seals must not be mottled, crystallized, bubbled, brittle, burned, show evidence of capillary marks ("caterpillar tracks"), or other indications of poor seals. Sealed edges must lie flat without causing planar distortion of the item.

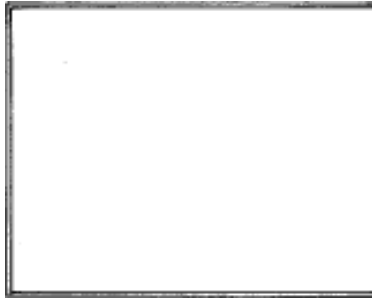
### **2.4 Durability**

The sealed edges must be able to withstand moderate handling without separating or splitting. Seals must not crack when tested by pulling the seal between two fingernails at a 45 degree angle. The seal must not separate when tested by running a finger along the inside of the seal. The seal must not split at the beginning of the cut end of the sealed edge when pulled slightly.

### **3. Product Requirements**

#### **3.1 Construction**

The enclosure must be constructed of two sheets of PET film of the same size, sealed along one short side and two long sides. (Illustration below)



Polyester enclosure – short side open

#### **3.2 Workmanship**

The enclosures must be cut straight with squared sides. The sizes must be accurate. The edges must be smooth and even and meet exactly.

#### **3.3 Dimensions**

Dimensions will be specified on the purchase order. The allowable tolerance for each dimension is  $\pm 1/16$  inch.

#### **3.4 Marking**

There must be no identification marks on the film.

### **4. Packaging and Identification**

#### **4.1 Inner Packages**

Each package must plainly identify the type, size and number of items within, the name of the supplier or manufacturer, year of manufacture, and manufacturing run or batch number.

#### **4.2 Outer Package**

The items must be packed in standard commercial containers that are constructed to ensure that they arrive at the Library of Congress in dry, undamaged condition. The outside of each container must be identified by type, size and number of items within; manufacturing run or batch number; LC Purchase Order / Contract number and line number.

### **5. Compliance with Specification**

#### **5.1 Quality Assurance Testing**

The Library of Congress has the right to perform any relevant instrumental analyses or tests deemed necessary to ensure that supplies conform to prescribed requirements.

## 5.2 Sampling

To sample for testing, shipments will be sampled according to ANSI/ASQ Z1.4, inspection level S-2, AQL 2.5%.

## 5.3 Acceptance

Materials will be accepted when the Library of Congress has ascertained that the products comply with all parts of the specification.

**FAILURE TO MEET ANY PART OF THE SPECIFICATION WILL BE CAUSE FOR REJECTION**

## Configuration Management

Date	Revision History
19-Jun-2002	Initial release of document on website, html format.
14-Dec-2009	Revised and reformatted for release as PDF document.