

Material Standards & Specifications

Specialty Products Company



MSS	5.004	Standards for Plastic Packaging Bags
Approved by:	CLS	
Revision:	A	Initial release
Date:	04/13/2023	

Scope:

This specification outlines general requirements for plastic bags used in final product packaging.

General:

The style of bag and any relevant dimensions will be specified on bag drawings. All requirements of the bag style, listed below, should be met unless otherwise specified on drawing.

A. Top Seal Bag Requirements:

1. Top seal bags should typically be single seal press-to-close bags. Double seal press-to-close and zip seal bags are also permissible. Adhesive lip seal bags are **not** permissible.
2. Size dimensions will be given on drawings in the form Width x Height, see **Figure 1**. Height is measured from bottom of bag to below the seal. General tolerance is ± 12.7 mm [.50 in].
3. Material should be polyethylene (PE) plastic.
4. Material thickness should be 3mil or 4mil. Tolerance per plastic manufacturer's specifications.
5. Bags should be clear and not opaque in any way.
6. If bag is stamped or marked per drawing, minimal manufacturing marks are permissible.

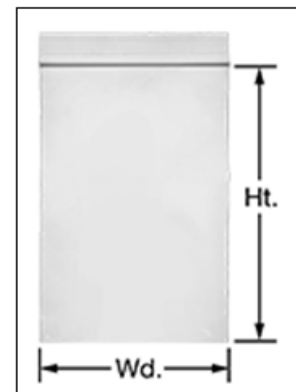


Figure 1: Top Seal Bag

B. Heat Seal Bag Requirements:

1. Heat seal bags are rectangular in shape, and fully sealed on two opposite sides. They are assumed to be from Cut-to-Length rolls. It is permissible to create bags by heat sealing individual sheets of plastic, as long as the resulting tube meets all dimensional requirements listed below. It is also permissible to use pre-cut lengths of open top (sealed on three sides) bags, as long as all dimensional requirements below are met.
2. Width dimensions (see **Figure 2**) will be given on bag-level drawings. Width tolerance is ± 12.7 mm [.50in].
3. Drawings for heat seal bags will not typically specify length of bag to be used. However, bag drawings will occasionally specify a minimum length. In this case, length is measured in one of two ways:

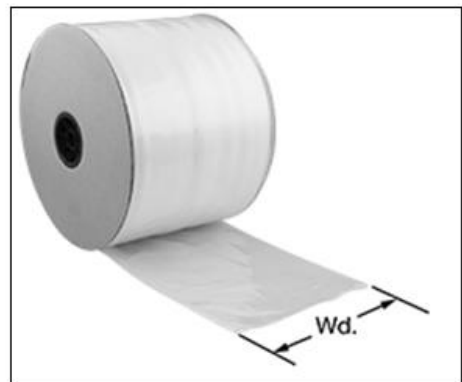


Figure 2: Heat Seal Bag (Cut-to-Length)

- 3.1. Overall length of plastic when no seals are present in the length direction.

- 3.2. Distance from seal to open end, when one seal is present in the length direction.
4. When bags are used on finished-product drawings, the appropriate length will be determined in one of two ways:
- 4.1. A specific length may be called out. This length is measured from seal to seal when the bag is fully closed. When a length is provided, the tolerance is +50.8mm[2.00in]/-0.0mm[.00in].
- 4.2. When no length is specified, bags should be cut as follows:
- 4.2.1. Bag should be appropriate length to fully enclose product when all four sides are sealed.
- 4.2.2. An excessive amount of plastic past the end of the product (101.6mm [4.00in] or more) is not permissible, see **Figure 3**.



Figure 3: Examples of Excessive and Appropriate Heat Seal Bag Lengths

5. When a bag is used to package finished product, all four sides should be fully sealed, whether pre-sealed or heat sealed by assemblers. It is not permissible to have excessive pleats in plastic at seal line. The excess material on the outer side of each seal should not exceed 12.7mm [.50in]. The angle of any seal should be perpendicular to the seals on either side, within $\pm 5^\circ$.
6. Material should be polyethylene (PE) plastic.
7. Material thickness should be 3mil or 4mil. Tolerance per plastic manufacturer's specifications.
8. Bags should be clear and not opaque in any way.
9. If bag is stamped or marked per drawing, minimal manufacturing marks are permissible.