



This presentation covers the basic design elements for flats.

Mail Entry & Payment Technology

Agenda

- Physical Standards of Flats
 - Addressing Standards for Flats
 - Automation Flats

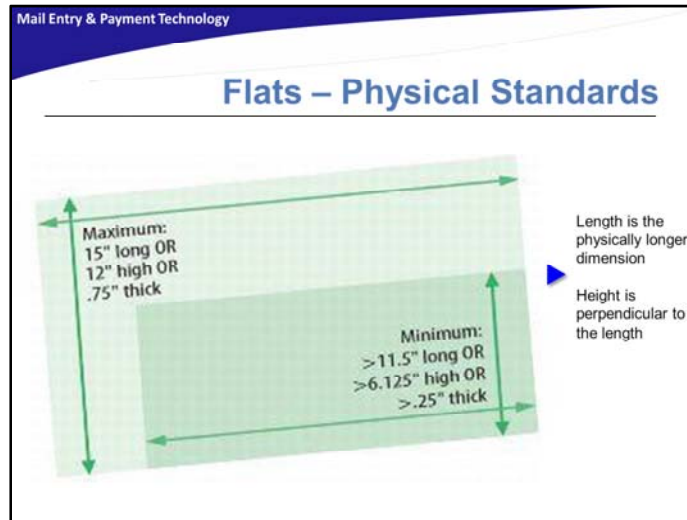
Here is our agenda for this training session; first we will review the physical standards for flats.

Mail Entry & Payment Technology

Importance of Flat Standards

The diagram illustrates the importance of flat standards for mail. It shows a mail piece with "Incorrect Barcode Placement", a mail piece that is "Too rigid", and a mail piece that is "Not uniformly thick". These examples lead to a scene with an "Automated Flats Sorting Machine" and a person looking confused (???) at a mailbox.

Understanding the standards for flats will help you determine if your mailpiece is compatible with automated flat sorting machines.



Generally, flats must exceed at least one of the maximum dimensions of a letter; it must be more than 11-1/2 inches long, or more than 6-1/8 inches high, or more than 1/4 inch thick. Flats may not be more than 15 inches long or more than 12 inches high or more than 3/4 inch thick, except for. Flats must also be rectangular with four square corners or with finished corners that do not exceed a radius of 1/8 inch unless prepared as Customized Market Mail. The length of a flat is the longest dimension.

Please note that boxes are not flats even if they meet the size requirements for flats.

Flats – Physical Standards

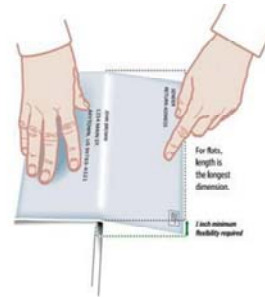
Flat-size pieces must be:

- F**lexible
- U**niformly thick (within $\frac{1}{4}$ ")
- R**ectangular
- D**eflection

Flats must be flexible, uniformly thick, rectangular and meet the deflection standards outlined in the DMM 201 4.6.

Flexibility Test – Part One

- First test pieces with the longest side parallel to the edge of a flat surface.
- Press down on the center of the piece 1 inch from the outer edge.
- The piece is not flexible if it cannot bend at least 1 inch vertically without being damaged.
- The piece is flexible if can bend at least 1 inch vertically without being damaged and it contain a rigid insert.



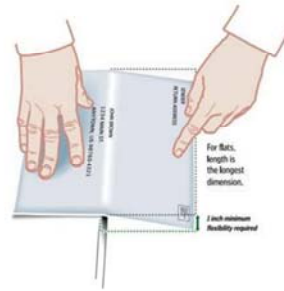
To test flats for flexibility place the piece with the length parallel to the edge of a flat surface and extend the piece halfway off the surface. Next press down on the piece at a point 1 inch from the outer edge, in the center of the piece's length, exerting steady pressure. The piece is *not* flexible if it cannot bend at least 1 inch vertically without being damaged. The piece *is* flexible if it can bend at least 1 inch vertically without being damaged and it does not contain a rigid insert. No further testing is necessary.

Flexibility Test – Part One

If the piece can pass this test
AND does not contain a rigid
insert, no further testing is
necessary

If the piece passes this test
but it **DOES** have rigid
contents, go to the next step,
part 2

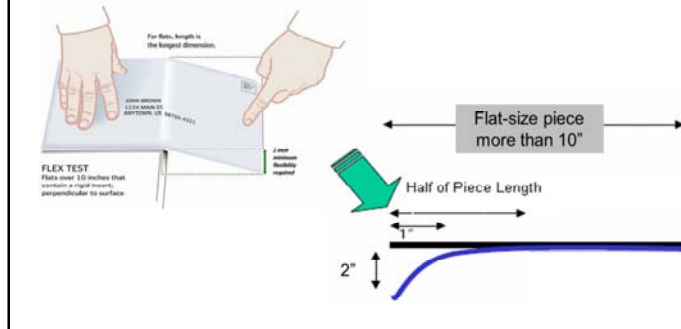
Note: A permanent bound
edge is not considered a rigid
item.



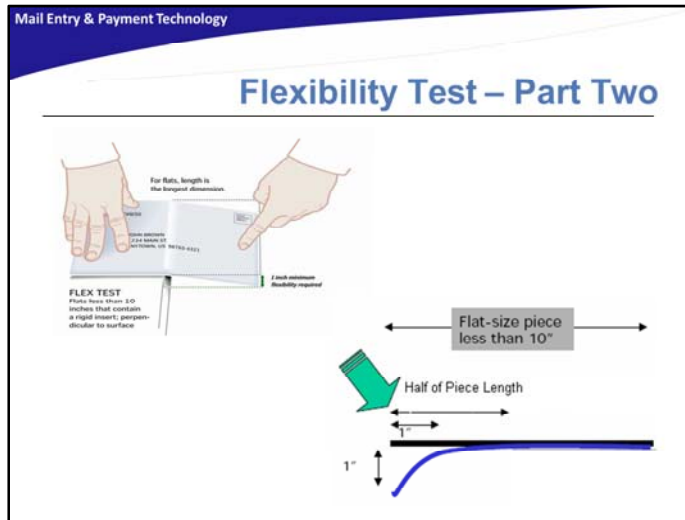
A piece that passes the first flexibility test and contains a rigid insert must also be tested in accordance with the standards in the DMM 201 4.3b or 4.3c if it can bend at least 1 inch vertically without being damaged.

Flexibility Test – Part Two

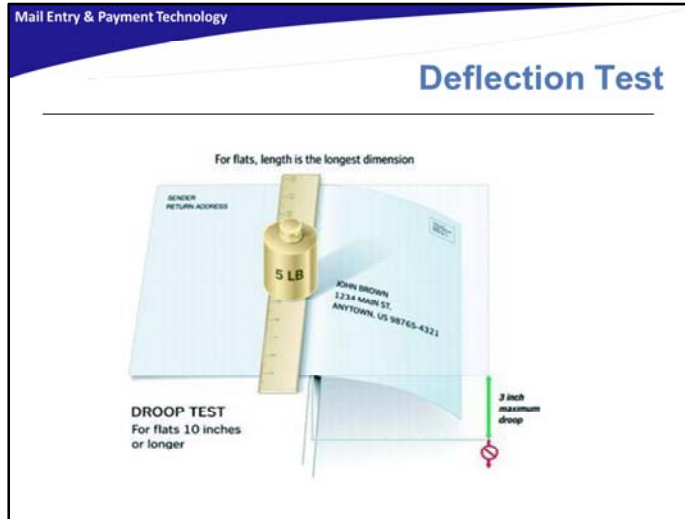
Mailpieces that pass first test and contain rigid contents



For flats 10 inches or longer that pass the first test and contain a rigid inset, place the piece with the length perpendicular to the edge of a flat surface and extend the piece 5 inches off the surface. Press down on the piece at a point 1 inch from the outer edge, in the center of the piece's width. Turn the piece around and repeat the process. The piece is flexible if both ends can bend at least 2 inches vertically without being damaged.

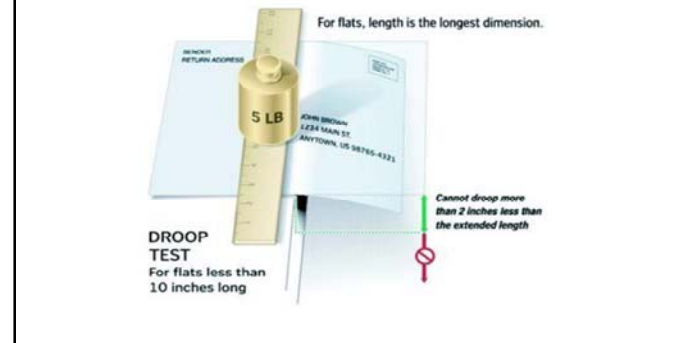


For flats less than 10 inches long that pass the first test and contain a rigid insert, place the piece with the length perpendicular to the edge of a flat surface and extend the piece one-half of its length off the surface. Press down on the piece at a point 1 inch from the outer edge, in the center of the piece's width. Turn the piece around and repeat the process. The piece is flexible if both ends can bend at least 1 inch vertically without being damaged.



Flat-size mailpieces must meet maximum deflection standards. For pieces 10 inches or longer, place the piece on a flat, straight-edge surface with the length perpendicular to the edge of the surface and extend the piece 5 inches off the edge of the surface. Place a flat 12-inch ruler on top of the mailpiece with the length of the ruler parallel to the edge of the surface and as close to the edge as possible. Place a certified 5-pound weight on the center of the ruler to hold the piece in place and ensure that the 5-pound weight does not extend past the edge. Turn the piece around 180 degrees and repeat the process. The piece is mailable as a flat if it does not droop more than 3 inches vertically at either end.

Deflection Test



For pieces less than 10 inches long, place the piece on a flat, straight-edge surface with the length perpendicular to the edge of the surface and extend the piece one-half of its length off the edge of the surface. Place a flat 12-inch ruler on top of the mailpiece with the length of the ruler parallel to the edge of the surface and as close to the edge as possible. Place a certified 5-pound weight on the center of the ruler to hold the piece in place and ensure that the 5-pound weight does not extend past the edge. Turn the piece around 180 degrees and repeat the process. The piece is mailable as a flat if it does not droop more than 2 inches less than the extended length at either end.

Flats – Physical Standards

Uniform Thickness

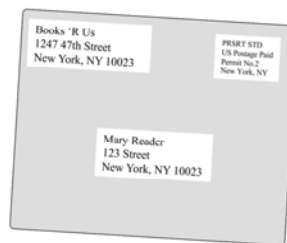
- Flat-size mailpieces must be uniformly thick so that any bumps, protrusions, or other irregularities do not cause more than 1/4-inch variance in thickness.
- Mailers must secure nonpaper contents to prevent shifting of more than 2 inches within the mailpiece if shifting would cause the piece to be nonuniformly thick or result in the contents bursting out of the mailpiece

Flats must be uniformly thick so that any bumps, protrusions, or other irregularities do not cause more than 1/4-inch variance in thickness. When determining thickness, exclude the outside edges, 1 inch from each edge when the contents do not extend into those edges. Mailers must secure non-paper contents to prevent shifting of more than 2 inches within the mailpiece if shifting would cause the piece to be nonuniformly thick or result in the contents bursting out of the mailpiece.

Flats – Physical Standards

Rectangular

- May be prepared with finished corners not exceeding a radius of .125" inch ($1/8$ inch)



Flats must be rectangular with four square corners or with finished corners that do not exceed a radius of $1/8$ inch, unless prepared as Customized Market Mail.

Flats – Physical Standards

Polywrap Film or Similar

Material:

- ❑ Only products listed as approved on the PostalPro website may be used

Physical Requirements:

- ❑ Outlined in DMM section 201.4.5

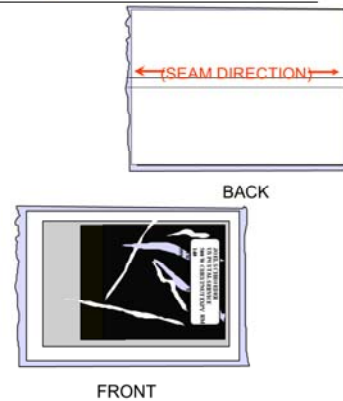


Polywrap film, or similar coverings on flat-size mailpieces must meet the standards listed in the DMM 201.4.5. Only polywrap listed as approved on the PostalPro website may be used on flat-size mailpieces.

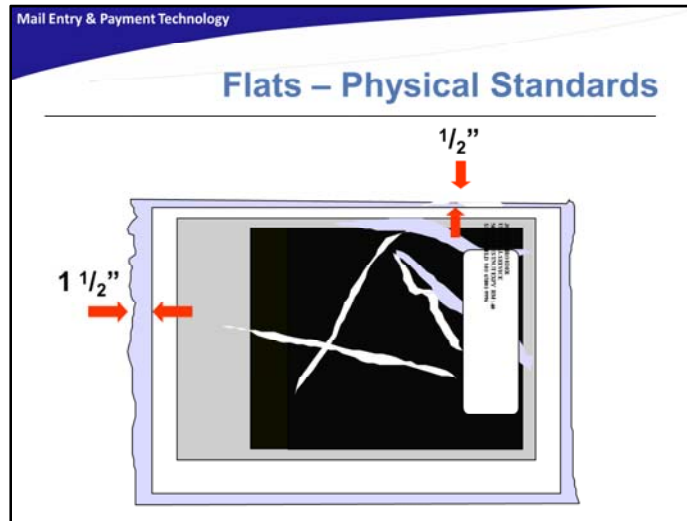
Flats – Physical Standards

Polywrap Film or Similar Material:

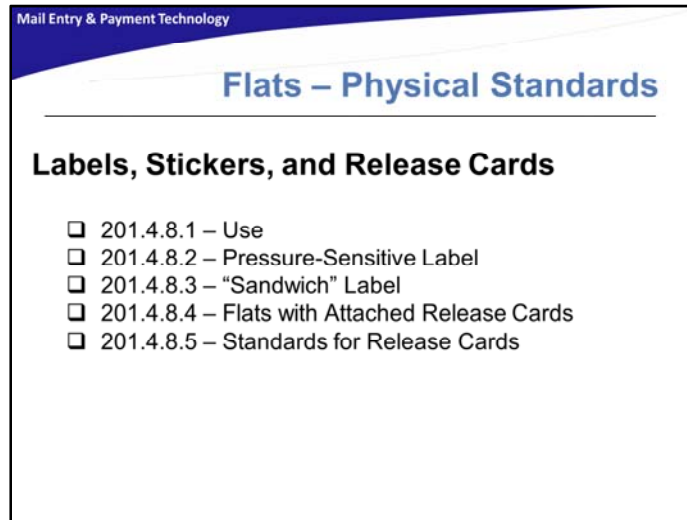
- ❑ Wrap direction must be around the longer axis
- ❑ Seam:
 - Parallel to longer dimension
 - Front or back
 - Not over address or barcode



The wrap direction must be around the longer axis, parallel to the length of the mailpiece with the seam parallel to that axis. Polywrap over the address area must be a smooth surface to avoid interference with address and barcode readability. The preferred seam placement is on the nonaddressed side of the mailpiece. If the seam is placed on the addressed side, the seam must not cover any part of the address, barcode, postage area, or any required markings or endorsements.



For purposes of the polywrap standards for overhang or selvage only, the top edge of the mailpiece is one of the two longer edges of the piece. With the piece held horizontally and the contents totally positioned at the bottom of the polywrap the overhang must not exceed 1/2 inch at the top of the mailpiece. With the piece held horizontally and the contents totally positioned to the left or to the right side of the polywrap, the overhang may be up to 1.5 inches on the opposite side as long as the mailpiece (contents and selvage) does not extend beyond the maximum length of 15-3/4 inches.



A label, sticker, or release card may be placed on a flat-sized mailpiece. Flats may have a permanent label or sticker less than 0.007 inch thick, designed not to be removed or relocated, affixed directly to the outside of the mailpiece with permanent adhesive, or a relocatable label, to be placed on the outside of, or on the contents of, a reply mailpiece. Labels must be affixed under the standards in the DMM 201 4.8.2 or 4.8.3.

Up to two release cards, each at least 0.007 inch thick and no more than 0.012 inch thick may be applied, when affixed according to the standards in [4.8.4](#) and [4.8.5](#).

Labels, stickers and release cards are permitted on pieces mailed at First-Class Mail, Periodicals, USPS Marketing Mail, or Package Services prices, only if permitted by the applicable content and eligibility standards.

Any pressure-sensitive label or sticker affixed directly to a mailpiece before mailing must have a minimum peel adhesion to stainless steel of 8 ounces/inch. This standard does not apply to pressure-sensitive labels provided by the USPS to mailers to label bundles for sortation levels.

A “Sandwich” label or face stock/liner label is a two-part unit with a face stock or top label attached to a liner or bottom label affixed to the mailpiece. The face stock must have a peel adhesion value of at least 2 ounces/inch with respect to the liner label and at least 8 ounces/inch when reapplied to stainless steel.

Flat-size mailings with a release card attached to the outside of each piece must comply with the standards in the 4.8.4; the standards for release cards are found int 4.8.5.

Flats – Physical Standards

Catalogs

- A bound flat-sized mailpiece with at least 16 pages meeting flat physical criteria.
- Provide a listing of products offered for sale arranged systematically and include images, photographs or illustrations of the products, descriptive details, and prices.
- Must contain an order form, a phone number, or a web address to place orders and provides shipping options for the products offered for sale.



A catalog is a bound flat-sized mailpiece with at least 16 pages, meeting the criteria in the DMM 201 4.0. Catalogs provide a listing of products offered for sale arranged systematically and includes images, photographs or illustrations of the products, descriptive details, and prices. Catalogs must contain an order form, a phone number, or a web address to place orders and provides shipping options for the products offered for sale.

Nonautomation Flats

Additional Physical Standards by Mail Class:

- 201.5.1 – First-Class Mail
- 201.5.2 – Standard Mail
- 201.5.3 – Bound Printed Matter
- 201.5.4 – Media Mail and Library Mail
- 201.5.5 – Priority Mail Express, Priority Mail and Critical Mail Flats

Additional physical standards for flats by mail class may be found in the DMM 201 5.1 – 5.5.

Agenda

- Physical Standards of Flats
- □ Addressing Standards for Flats
- Automation Flats

Now we're going to review the standards for flats addressing.

Flats – Addressing

- ❑ Minimum 8-point type (6-point for automation flats)
- ❑ 6-point if all capital letters with DPBC
- ❑ Characters in address can not overlap
- ❑ Address lines can not touch or overlap
- ❑ Address elements separated by no more than five blank character spaces

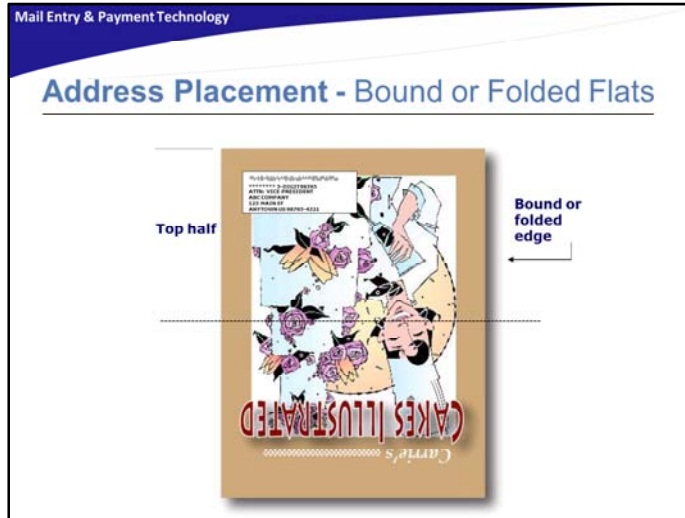
The delivery address specifies the location to which the USPS is to deliver a mailpiece. The delivery address should be printed in a minimum of 8-point type. For flats that bear an Intelligent Mail barcode with a delivery point routing code, mailers may print the delivery address in a minimum of 6-point type if all capital letters are used.

The following guidelines are important to follow: a sans-serif font is preferred; characters in the address may not overlap; the address lines may not touch and address elements should not be separated by more than five blank character spaces.



On all Periodicals, USPS Marketing Mail, Bound Printed Matter, Media Mail, and Library Mail flats mailed at presorted, automation, or carrier route prices, mailers must place the delivery address at least 1/8 inch from any edge of the mailpiece in the “top” half of the mailpiece. On enveloped, polywrapped and card-style flats the “top” of the mailpiece is either of the shorter edges.

Please note that the delivery address may be parallel or perpendicular to the top edge, but it cannot be upside down as read in relation to the top edge.



On bound or folded flats the “top” of the mailpiece is the upper edge of the mailpiece when the bound or final folded edge is vertical and on the right side of the piece.

Again, please note that the delivery address may be parallel or perpendicular to the top edge, but it cannot be upside down as read in relation to the top edge.

Agenda

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- Addressing Standards for Flats
- □ Automation Flats

Now we're going to review the standards for automation flats.

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Automation Flats – Physical Standards

Dimensions	Minimum	Maximum
Height	5"	12"
Length	6"	15"
Thickness	.009"	0.75"

Automation flats must be rectangular but may have finished corners that do not exceed a radius of (1/8 inch. First-Class Mail, USPS Marketing Mail, Periodicals, and Bound Printed Matter automation flats must be a minimum of 5 inches high and may not be more than 12 inches high. The length of an automation flat must be at least 6 inches and cannot exceed 15 inches.

Automation flats must be at least 0.009 inch thick and may not to exceed a maximum thickness is 0.75 inch.

Automation Flats

Weight Maximums

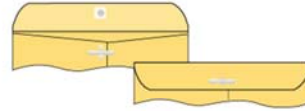
- ❑ First-Class Mail: 13 ounces
- ❑ Periodicals: 20 ounces
- ❑ Standard Mail: < 16 ounces
- ❑ Bound Printed Matter: 20 ounces

Maximum weight limits for automation flats are as follows: First-Class Mail, 13 ounces; Periodicals, 20 ounces; USPS Marketing Mail, less than 16 ounces and Bound Printed Matter, 20 ounces.

Automation Flats

Prohibitions

- Protrusions
- Staples



Tabs, Wafer Seals, Tape, and Glue



Booklet-Type Piece or Magazine

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Flats – Physical Standards

Short Covers


- More than $\frac{3}{4}$ " from each edge
- Secured with at least two tabs etc. at least 1" from top and bottom edges of the cover

Outside Stickers

- Affixed with permanent adhesives



Fall Issue



Flats may be prepared with a cover page or protective cover that is more than 3/4 inch from each edge if the cover page is secured with at least two tabs, wafer seals, or glue spots placed within 1 inch of the top and bottom edges of the cover page or protective cover.

A permanent label or sticker (designed not to be removed or relocated) may be affixed directly to the outside of the mailpiece with permanent adhesive.

Automation Flats - Barcoding

Barcode:

- Intelligent Mail barcode (IMb)



Placement:

- On address side at least 1/8 inch from any edge of the piece

Clearances:

- 1/8 inch between the leftmost and rightmost bars to any printing, label edge or window edge
- .028" inch above and below barcode to any printing, label edge or window edge



On a flat-size piece claimed at automation prices, the barcode may be anywhere on the address side as long as it is at least 1/8 inch from any edge of the piece. When an address label is used, a clear space of at least 1/8 inch must be left between the barcode and the left and right edges of the address label. The clearance between the Intelligent Mail barcode and the top and bottom edges of the address label must be at least 0.028 inch.

ADDITIONAL RESOURCES

Visit our websites at:

www.usps.com

<http://pe.usps.gov/>

Contains the DMM, IMM and various publications.

<https://postalpro.usps.com/>

Contains information on Intelligent Mail, Full Service, eInduction, Seamless Acceptance etc.

MDA SUPPORT CENTER

Contact Information
by phone **855-593-6093**
OR
by email **MDA@USPS.GOV**

MONDAY – FRIDAY, 7am – 5pm CST