

C800 Automation-Compatible Mail

C810 Letters and Cards

Summary C810 describes dimensions, aspect ratio, flexibility, and weight standards for automation-compatible letter-size pieces, including cards. It also covers additional standards for other types of automation-compatible pieces like self-mailers, booklets, postcards, heavy letter mail, reply cards, and envelopes.

1.0 BASIC STANDARDS

Letters and cards claimed at automation rates and at some Standard Mail Enhanced Carrier Route rates must meet the standards in 2.0 through 9.0. Pieces claimed at First-Class Mail automation card rates also must meet the standards in C100. Unless prepared under 8.2 through 8.4, each mailpiece must be prepared either as a sealed envelope (the preferred method) or, if unenveloped, must be sealed or glued on all four sides.

2.0 DIMENSIONS

Shape and Size Each letter-size piece must be rectangular and:

2.1

- a. For height, no more than 6-1/8 or less than 3-1/2 inches high.
- b. For length, no more than 11-1/2 or less than 5 inches long.
- c. For thickness, no more than 0.25 or less than
 - (1) 0.007 inch thick *if no more than 4-1/4 inches high and 6 inches long*; or
 - (2) 0.009 inch thick *if more than 4-1/4 inches high or 6 inches long, or both*.

Aspect Ratio The aspect ratio (length of the mailpiece divided by height) must be between 1.3 and 2.5, inclusive. Length and height are defined in C010.1.3.

2.2

Maximum Weight Maximum weight limits are as follows:

2.3

- a. First-Class Mail:
 - (1) Machinable Presorted: 3.3 ounces (0.2063 pound).
 - (2) Automation (see 8.5 for pieces heavier than 3 ounces): 3.3 ounces (0.2063 pound).
- b. Periodicals automation (see 8.5 for pieces heavier than 3 ounces): 3.3 ounces (0.2063 pound).
- c. Standard Mail:
 - (1) Machinable Presorted: 3.3 ounces (0.2063 pound).
 - (2) Automation (see 8.5 for pieces heavier than 3 ounces): 3.5 ounces (0.2188 pound).
 - (3) Enhanced Carrier Route high density and saturation and automation carrier route (see 8.5 for pieces heavier than 3 ounces): 3.5 ounces (0.2188 pound).

3.0 GENERAL PROHIBITIONS AND RESTRICTIONS

Wraps and Closures An automation-compatible mailpiece may not be polywrapped, polybagged, or shrinkwrapped; have clasps, strings, buttons, or similar closure devices; or have protrusions that might impede or damage the mail or mail processing equipment.

3.1



Staples and Saddle Stitching
3.2 Staples or saddle stitching may be used only on booklet-type mailpieces to join the bound edge (spine). Inserted staples or stitching must parallel the bound edge, seat tightly and securely, and have no protrusions that might impede or damage the mail or mail processing equipment.

Rigid and Odd-Shaped Items
3.3 Rigid items (e.g., pens, pencils, keys, bottle caps) are prohibited within mailpieces. Reasonably flexible items (e.g., credit cards) are permitted. Subject to 5.0, odd-shaped items (e.g., coins and tokens) are permitted if firmly affixed to and wrapped within the contents of the mailpiece and envelope to streamline the shape of the mailpiece for automated processing.

4.0 TABS, WAFER SEALS, TAPE, AND GLUE

Tabs, wafer seals, cellophane tape, or permanent glue (continuous or spot) may be used as applicable to the particular type of mailpiece under 8.0 if the sealing devices do not interfere with the recognition of the barcode, rate marking, postage information, or delivery or return addresses. In all cases, additional tabs or seals may be used. Cellophane tape is not acceptable within the barcode clear zone. Tabs or wafer seals placed in the barcode clear zone must contain a paper face meeting the standards for background reflectance and, if the barcode is not preprinted by the mailer, the standards for acceptance of water-based ink. Tabs, wafer seals, and tape must have a peel adhesion (shear strength) value of at least 15 ounces/inch at a speed of 12 inches/minute after application to a stainless steel plate; the test is to be conducted 10 minutes after the material is applied to the plate.

5.0 FLEXIBILITY

Machinability
5.1 To ensure transport through automated mail processing machines, a mailpiece and its contents must bend easily when subjected to a transport belt tension of 40 pounds around an 11-inch-diameter drum.

Testing Flexibility
5.2 A mailer wanting to have mailpieces tested for flexibility must submit at least 50 sample pieces and a written request to USPS Engineering at least 6 weeks before the mailing date. The request must describe mailpiece contents and construction, number of pieces being produced, and preparation level (e.g., presort). Engineering advises the mailer by letter of its findings. If the mailpiece is approved, the letter includes a unique number identifying the piece tested and serves as evidence that the piece meets the relevant standards. A copy of the letter must be attached to each postage statement submitted for mailings of the approved piece. If requested by the USPS, the mailer must show that pieces presented for mailing are the same as those tested and approved.

6.0 OUTSIDE LABELS AND STICKERS

Use
6.1 Permanent labels and stickers (i.e., those designed not to be removed or relocated) must be affixed directly to the outside of the mailpiece with permanent adhesive. A mailer may provide recipients with relocatable labels to place on the outside of response pieces sent back to the mailer. On pieces mailed at First-Class card rates or at Periodicals rates, labels and stickers may be used only if permitted by the applicable standards.

Pressure-Sensitive Label
6.2 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 label packages to sortation levels.

“Sandwich” Label
6.3 A face stock/liner label (“sandwich” label) is a two-part unit with a face stock (top label) attached to a liner (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.

7.0 [4-3-03] REPOSITIONABLE NOTES

Use
7.1 A repositionable note may be affixed directly to the address side of First-Class Mail and Standard Mail letter-size mailpieces that meet the standards in 7.2 through 7.6. The note is included as an integral part of the mailpiece for weight and postage rate computation purposes. Repositionable notes must conform to any content restrictions applicable to the class of the host piece.

Mailpiece Characteristics 7.2

Each mailpiece must:

- a. Bear a valid delivery point barcode.
- b. Meet the requirements for automation-compatible mail under C810.
- c. Be eligible for and claim an automation letter rate.
- d. Be uniformly thick.

Contents 7.3

Allowable characteristics of contents of the host piece include:

- a. Paper.
- b. Credit cards or similar plastic cards. Such cards must be affixed to or tightly enclosed within the other contents. The position of the credit cards should alternate in adjacent mailpieces between left and right ends (or left, center, right) to keep the stack thickness consistent.
- c. Maximum insert shift is 7/8 inch.

Physical Requirements and Size Standards 7.4

Each mailpiece must be rectangular and have a surface smoothness of 195 Sheffield Units or smoother. The following standards also apply:

- a. *Enveloped mailpieces.* Each mailpiece prepared in an envelope must be constructed from a basis weight of 20 pounds or greater. Window envelopes must have a closed panel made of polystyrene or glassine. Each enveloped mailpiece is limited to the following dimensions:
 - (1) For height, no less than 4-1/8 inches and no more than 6 inches high.
 - (2) For length, no less than 8 inches and no more than 9-1/2 inches long.
 - (3) For thickness, no less than 0.02 inch and no more than 0.125 inch thick.
- b. *Oversize cards.* Each mailpiece prepared as an oversize card is limited to the following dimensions:
 - (1) For height, no less than 4-1/2 inches and no more than 6 inches high.
 - (2) For length, no less than 8-1/2 inches and no more than 9 inches long.
 - (3) For thickness, no less than 0.009 inch thick (cards 5-3/4 inches or more in height must be no less than 0.012 inch thick.)

Notes Characteristics 7.5

Repositionable notes must:

- a. Measure 3 inches by 3 inches.
- b. Not contain phosphorescent or red fluorescent colorants.
- c. Be positioned parallel with the length of the piece, affixed by standard labeling equipment, and placed no closer than 3/8 inch from the left of the delivery address. Manually affixed notes are not permitted.

- d. Be at least 1/2 inch (plus or minus 1/8 inch) from the bottom and left edges of the mailpiece.
- e. Be adhered with a 3/4 inch (plus 1/4 inch or minus 1/16 inch) adhesive strip across the top portion on the reverse side of the note.
- f. Not be placed in a manner that interferes with the delivery address, and must not display a specific address or ZIP Code. References to general landmarks are permissible. The written and graphic characteristics of the notes are considered when determining eligibility of mailpieces mailed at the Standard Mail and Nonprofit Standard Mail rates.

Compliance 7.6

Mailers must comply as follows:

- a. Repositionable notes must be obtained from an approved repositionable notes vendor (see www.usps.com for a listing of approved vendors). Prospective vendors can obtain USPS standards and test procedures from USPS Engineering (see [G043](#) for address). Testing must be performed by a certified independent laboratory.
- b. Mailers must present evidence at the time of mailing to show that their repositionable notes have been supplied by an approved vendor. The vendor name on the reverse of the note will be sufficient as evidence; in lieu of the vendor name printed on the notes, an invoice from the approved vendor for purchase of the repositionable notes will constitute such evidence.
- c. Each mailing must include, as part of the mailing, eight pieces addressed to the manager, USPS Engineering Letter Tech (Attn: RPN Sample), and eight pieces addressed to the manager, Product Management–Letters (Attn: RPN Sample). See [G043](#) for addresses.

8.0 ADDITIONAL STANDARDS FOR SPECIFIC TYPES OF PIECES

Envelope or Piece Sealed on All Sides 8.1

An envelope or any mailpiece formed by an outer sheet or sheets sealed on all four edges must be prepared from paper with a minimum basis weight of 16 pounds (measured weight for 500 17- by 22-inch sheets).

Folded Self-Mailer 8.2

Except as noted in [8.2c](#), a folded self-mailer must be prepared with the folded edge parallel to the longest dimension and the address of the mailpiece. Based on the number of tabs used, these additional standards apply:

- a. With one tab or wafer seal, the folded edge must be at the bottom of the self-mailer. The tab or wafer seal must be placed in the middle of the top edge of the piece. If formed of a single folded sheet, the self-mailer must be prepared from paper with a minimum basis weight of 28 pounds (measured weight for 500 17- by 22-inch sheets) or 70 pounds (measured weight for 500 25- by 38-inch sheets). If formed of multiple folded sheets, the self-mailer must be prepared from paper with a minimum basis weight of 24 pounds (measured weight for 500 17- by 22-inch sheets) or 60 pounds (measured weight for 500 25- by 38-inch sheets).
- b. With two tabs or wafer seals, the folded edge may be at the top or bottom of the self-mailer. The two tabs or wafer seals must be placed on the open edge, opposite the folded edge. One tab or wafer seal must be placed within 1 inch of the left edge of the piece; the other, within 1 inch of the right edge of the piece. The whole tab need not be placed within 1 inch of the edge. The tabs must not obscure the FIM, postage, or required address information. The folded self-mailer must be prepared from paper with a minimum basis weight of 20 pounds (measured weight for 500 17- by 22-inch sheets).

- c. In specifically identified formats, a self-mailer may have the final fold on the right side (leading edge) of the piece. The left edge (trailing edge) and other open edges must be secured with at least one tab or a glue line. The number of tabs required is determined by the final trim size and paper basis weight of the piece. If the piece is 7 inches long or more, the piece must be sealed on the top and the bottom. In all cases, additional tabs, seals, or glue spots or glue lines may be used. Newsprint paper is acceptable if the basis weight of the paper meets the minimum standards in 7.2 and the piece is certified by the USPS mailpiece design analyst to be acceptable for automated processing.

Booklet-Type Piece
8.3

A booklet-type piece must meet these standards:

- a. The front and back covers must be prepared from paper with a minimum basis weight of 20 pounds (measured weight for 500 17- by 22-inch sheets).
- b. Except as noted in 8.3d, the bound edge (spine) must be the longest edge of the piece and at the bottom, parallel to the address.
- c. The unbound edge (top) must be secured with at least two tabs or wafer seals. One tab or wafer seal must be placed within 1 inch of the left edge of the piece; the second tab or seal, within 1 inch of the right edge of the piece. As an alternative, one tab or wafer seal must be placed within 1 inch from the top left side (trailing edge) of the piece; the second tab or seal, within 1 inch from the top right side (leading edge) of the piece.
- d. In specifically identified formats, prepared with a minimum paper basis weight of 24-pound bond paper, the spine may be on the shorter side (leading edge) of the piece. The address must still be parallel to the longest side of the piece. The unbound edges must be secured with at least two tabs or wafer seals. If the outside covers are prepared with a minimum paper basis weight of 20-pound bond or equivalent, the spine may be on the right side (leading edge) of the piece. The address must still be parallel to the longest side of the piece. The following restrictions apply:
 - (1) If the final trim size of the piece is no more than 4-1/4 inches high and no more than 6 inches long, the unbound left edges must be secured with at least one tab or wafer seal placed at the vertical center of the piece.
 - (2) If the final trim size of the piece is more than 4-1/4 inches high or more than 6 inches long, the unbound left edge must be secured with two tabs or wafer seals placed within 1 inch of the top and bottom edges.

Postcard
8.4

Any postcard must be prepared from paper stock meeting the industry standard for a basis weight of 75 pounds or greater, with none less than 71.25 pounds (measured weight for 500 25- by 38-inch sheets). The stock must be free from groundwood unless coated with a substance adding to the stock's ability to resist an applied bending force. A double postcard not prepared with all edges sealed must have the folded edge at the top or bottom, and the open edge parallel to the address must be secured with one tab (or other permitted closure) in the middle of the length.

Heavy Letter Mail
8.5

Heavy letter mail (i.e., barcoded letter-size mail weighing more than 3 ounces) must have a barcode in the address block (see C840) and must be prepared in a sealed envelope. Heavy letter mail may neither contain stiff enclosures nor be prepared as a self-mailer or booklet-type mailpiece.



9.0 ENCLOSED REPLY CARDS AND ENVELOPES

Basic Standard

9.1

All letter-size reply cards and envelopes (business reply mail (BRM), courtesy reply mail (CRM), and meter reply mail (MRM)) provided as enclosures in automation First-Class Mail, Periodicals, and Standard Mail and addressed for return to a domestic delivery address must meet the applicable standards for automation-compatible mail in [C810](#). The mailer's signature on the postage statement certifies that this standard, and the standards listed below, have been met when the corresponding mail is presented to the USPS:

- a. Each reply piece must include the appropriate facing identification mark (FIM) under [C100](#).
- b. Each BRM piece must bear the correct BRM ZIP+4 barcode; each MRM and CRM piece must bear the correct barcode for the delivery address, subject to [C840](#).
- c. Each BRM piece must meet any applicable standard under [S922](#); each MRM piece must meet any applicable standard under [P030](#); and each CRM piece as defined in [9.2](#) must meet the standards of this section.

Courtesy Reply Mail (CRM)

9.2

For these standards, courtesy reply mail (CRM) is reply mail other than BRM or MRM enclosed in other mail, with or without prepayment of postage, for return to the address on the reply piece. If postage is required, the customer returning the piece affixes the applicable First-Class Mail postage. Each piece must meet the physical standards for mailability in [C010](#) and [C100](#). CRM has no additional required design standards unless enclosed in automation mail.