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Item 222-1

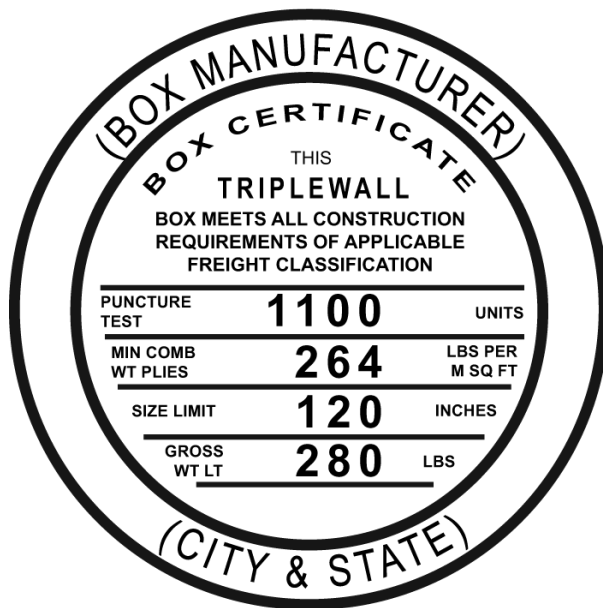
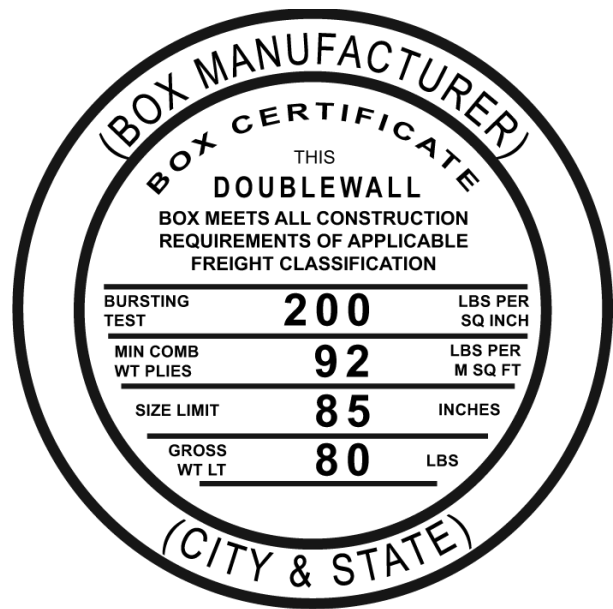
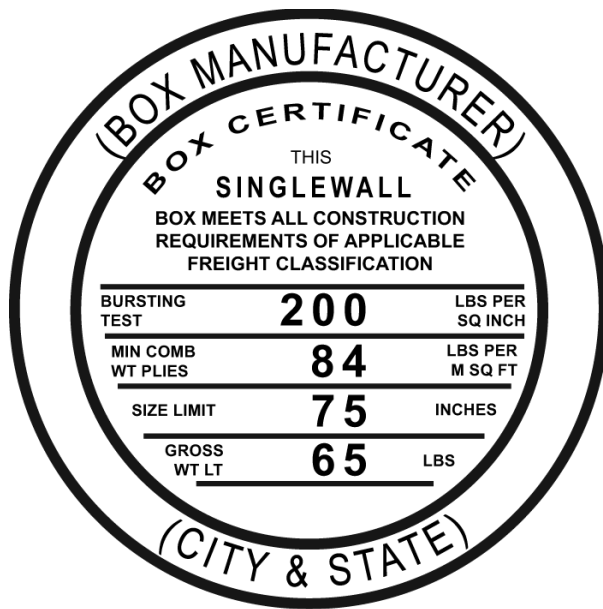
SPECIFICATIONS FOR FIBERBOARD BOXES CERTIFICATE OF BOX MANUFACTURER

(Applicable only in connection with Item 222)

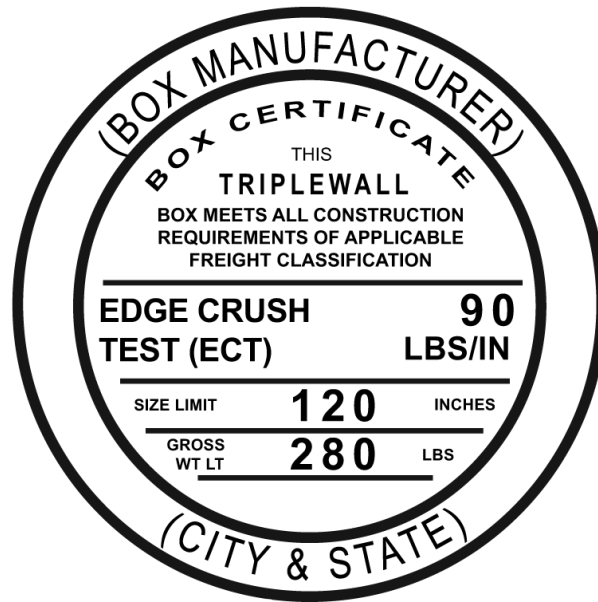
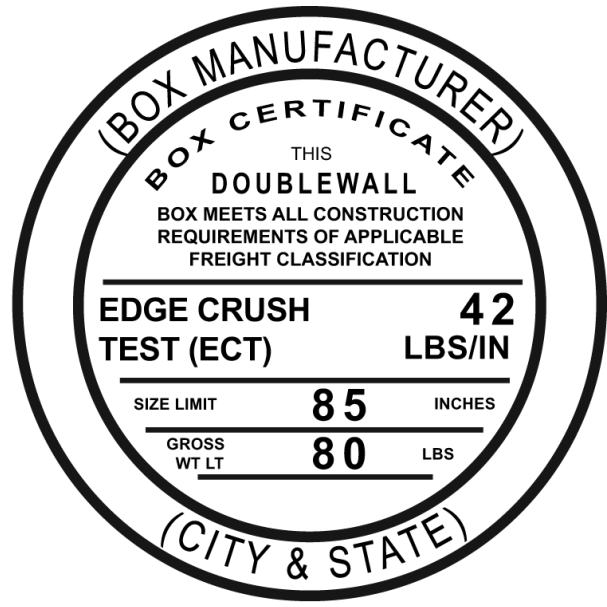
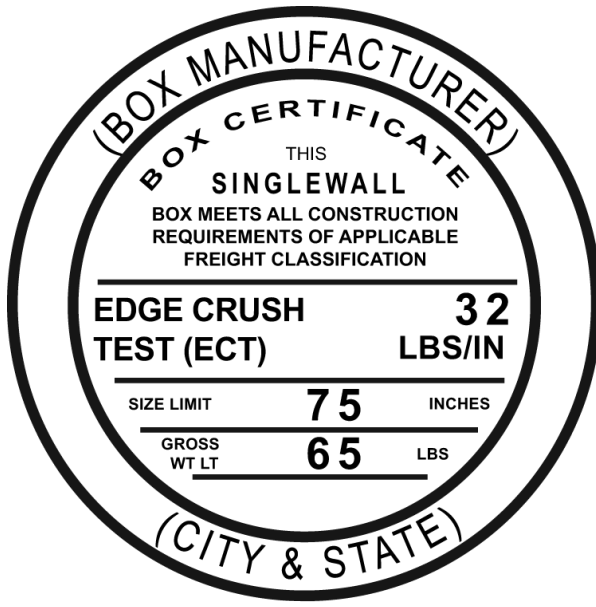
(a) BOXES, COMPLYING WITH THIS ITEM:

(1) Size, Type and Wording: All fiber boxes that are made to conform to specifications of this rule must bear a legible certificate of a box manufacturer on an outside surface, guaranteeing that boxes do so conform. Certificate must be of following form, size (3-inch diameter, plus or minus 1/4 inch), type and wording, as illustrated in either paragraphs (2) or (3) (see Notes 1, 2 and 3). City and state may be either that of the manufacturing or corporate location.

(2) Certificates applicable to boxes made to comply with the burst or puncture test and other requirements of Table A:



(3) Certificates applicable to boxes made to comply with the edge crush test and other requirements of Table B:



Note 1-Reduced Diameter for Small Boxes:

On boxes having a length of less than ten inches or a width of less than nine inches, the above certificates may be reduced in size so that outside diameter is not less than two inches.

Note 2-Boxes or Numbered Packages Made in Foreign Countries:

Fiberboard boxes complying with the provisions of this rule, or numbered packages of this Classification, and as amended, which are made in foreign countries and used for freight imported into the United States of America need not bear a certificate, or certificate may be printed in the language of the country in which the box or numbered package is made,

provided shipper certifies on bills of lading that the boxes comply with Item [222](#) or the appropriate numbered package.

Note 3-Actual Test Above Required Minimum:

The test stated in this certificate must be not less than the minimum required for the gross weight and dimension limit, except as provided in Note 4 of Item [222](#)-1, and the combined weight of facings for required bursting strength must be the minimum prescribed by Item [222](#), Sec. 3. When the actual test is in excess of the minimum test required, the actual test may be stated below the certificate, but in such case all classes and rules in this Classification as provided for a box having minimum test will apply.

Note 4-Nonconforming Boxes:

In the separate description of articles when boxes not having to meet the requirements of Item [222](#) are authorized, such boxes are not required to be guaranteed by certification. Boxes may bear the circular certificate only when the provisions of Item [222](#) have been met. Such boxes may bear a straight line stamp indicating the box manufacturer and the test of the fiberboard on a voluntary basis.

Note 5-Boxes of Mixed Components:

For boxes having more than one fiberboard component part making up the outside shipping container, the Box Manufacturers' Certificate must reflect the lowest represented bursting test or edge crush test of any given part.

Note 6-Fiberboard Master Pack:

The rates or classes for freight in properly certified fiberboard or special numbered packages will also apply on such freight when the boxes complying with Item [222](#) or containers complying with special numbered packages are enclosed in outer fiberboard boxes, the fiberboard meeting the construction requirements of Item [222](#). Inner boxes or special numbered packages must reasonably occupy available capacity without creating voids affecting the performance of the Master Pack. Outer box must be securely closed or fastened. No certificate is required on outer box.

Gross weight of Master Pack must not exceed 4 times the allowable gross weight authorized for the lowest burst or edge crush test of any component part of the master pack container. Gross weights exceeding this maximum weight limit must be tendered on pallets of sound construction.

(b) NUMBERED PACKAGES:

Numbered packages must bear a legible package certificate on an outside surface, in the form, size, type and wording as illustrated in Item [299](#). Numbered packages that contain provisions specifying fiberboard boxes or containers complying with the burst test, puncture test or edge crush test and other requirements of Tables A and B of Section 3 of Item [222](#), may also bear, on a voluntary basis, the applicable circular certificate of box manufacturer as shown in Section (a) of this rule. Fiberboard boxes, containers, trays and component parts thereof that do not comply with the requirements of Item [222](#) must not bear the circular certificate, but may bear, on a voluntary basis, a stamp or label indicating the box manufacturer and the test of the fiberboard.

[Item 222-2](#)

SPECIFICATIONS FOR FIBERBOARD BOXES

Glassware, Articles in Glass or Earthenware or Fragile Articles (Applicable only in connection with Items [222](#) and [222-1](#))

Except as otherwise provided, glassware, articles in glass or earthenware, or fragile articles will be accepted in fiber boxes only under the following conditions:

(a) Box Construction Requirements: All outer fiberboard boxes must comply with Items [222](#) and [222-1](#) as provided in paragraph (d) or Note 1.

(b) Weight Limit: Except as provided in paragraph (d), glassware, articles in glass or earthenware or fragile articles must not exceed 65 pounds gross weight. Liquids in individual glass or earthenware containers exceeding one gallon or 4 liter capacity will not be accepted in fiber boxes.

(c) Inner Packing Requirements: Except as more specifically provided in paragraphs (d), (e) and (f), or Note 2, contents must be packed within container by or with liners, partitions, wrappers, expanded plastic foam or other packing material which will afford adequate protection against breakage or damage and box must be completely filled.

(d) Minimum Requirements-Over 65 Pounds Gross Weight-Inner Containers Not Exceeding One Gallon or 4 Liters: Articles in glass or earthenware inner containers not exceeding one gallon or 4 liter capacity may be shipped in doublewall corrugated fiberboard boxes testing not less than 275 pounds or edge crush test of not less than 48 pounds, with inner and outer flaps meeting, or outer flaps meeting and space between inner flaps with pad of same fiberboard of which box is made; or in singlewall corrugated fiberboard boxes testing not less than 275 pounds or edge crush test of not less than 44 pounds, lined on sides, ends, tops and bottoms with singlewall corrugated fiberboard

testing not less than 200 pounds or edge crush test of not less than 32 pounds. Glass or earthenware containers must be separated one from the other by 200 pound test or edge crush test of not less than 32 pounds singlewall scored shells. Gross weight must not exceed 100 pounds and maximum inside dimensions must not exceed 100 inches.

(e) Inner Containers Exceeding One Gallon or 4 Liters-Not Over 65 Pounds Gross

Weight: Articles in liquid or articles other than liquid, in individual glass or earthenware containers exceeding one gallon or 4 liter capacity, but not exceeding 65 pounds gross weight, must be packed in individual boxes lined on all sides with doublewall corrugated fiberboard and box must have top and bottom pads made of doublewall corrugated fiberboard; OR inner container must be separated from all sides of box not less than $\frac{1}{2}$ inch by doublewall corrugated fiberboard testing not less than 275 pounds or edge crush test of not less than 48 pounds, with shoulder height corner posts, and box must have top and bottom pads of corrugated fiberboard; OR inner container must be separated from all sides of box not less than $\frac{1}{2}$ inch by die-cut or inverted hole-cut creased sheet made of fiberboard, testing not less than 200 pounds or edge crush test of not less than 32 pounds, and box must have top and bottom pads made of corrugated fiberboard; OR when glass or earthenware container consists of a barrel jar in individual boxes testing not less than 200 pounds or edge crush test of not less than 32 pounds, such jar must be in inner box made of doublewall corrugated fiberboard. Walls of inside box must extend not less than half the height of jar. Inner and outer flaps at bottom must meet and top flaps must be folded down on walls of carton. Top or bottom pad will not be required.

(f) Dry Articles in Inner Containers Not Exceeding One Gallon or 4 Liters-Not Over 65 Pounds Gross Weight:

Dry articles may also be shipped in individual glass or earthenware containers exceeding one gallon or 4 liter capacity but not exceeding 65 pounds gross weight and must be packed in individual boxes as follows:

(1) When capacity does not exceed three gallons or 12 liters, containers must be separated from all sides of box not less than $\frac{1}{2}$ inch by shoulder height corner posts made of singlewall corrugated fiberboard testing not less than 200 pounds or edge crush test of not less than 32 pounds and box must have top and bottom pads made of singlewall corrugated fiberboard testing not less than 175 pounds or edge crush test of not less than 29 pounds, folded to provide not less than three thicknesses. When capacity exceeds three gallons or 12 liters but does not exceed five gallons or 20 liters, box must be of doublewall corrugated fiberboard testing not less than 275 pounds or edge crush test of not less than 48 pounds.

(2) Containers must be separated from all sides of box not less than $\frac{1}{2}$ inch by shoulder height corner posts made of singlewall corrugated fiberboard testing not less than 275

pounds or edge crush test of not less than 48 pounds, and box must have top and bottom pads made of singlewall corrugated fiberboard testing not less than 175 pounds or edge crush test of not less than 29 pounds, folded to provide not less than three thicknesses.

(g) Classes or Ratings: The ratings or classes for glassware, articles in glass or fragile articles in fiberboard boxes will also apply on such freight in inner fiberboard boxes of identical size and shape complying with Item [222](#), when they are enclosed in outer singlewall corrugated fiberboard boxes, the fiberboard meeting the construction requirements for any bursting tests or edge crush tests specified in Item [222](#), Secs. 2 and 3, except that when gross weight exceeds 60 pounds, the fiberboard master container must test not less than 175 pounds or edge crush test of not less than 29 pounds. Gross weight must not exceed 160 pounds. Both inner and outer boxes must be securely closed. Shipper must certify on bill of lading that the inner boxes comply with all requirements of Item [222](#).

Note 1-Except as provided in individual items, glass inner containers filled with products other than Liquors, alcoholic, [NOI](#), or Wine, [NOI](#), the gross weight allowed for boxes testing not less than 175 pounds or edge crush test of not less than 29 pounds, may exceed 40 pounds, but may not exceed 49 pounds, provided individual containers are separated by partitions or other interior separation of corrugated fiberboard or solid paperboard, and provided further, the number of filled containers per box must conform to one of the following:

Not more than 48 containers each not exceeding 12 avoirdupois ounces net weight of product.

Not more than 24 containers each not exceeding 25 avoirdupois ounces net weight of product.

Not more than 12 containers each not exceeding 45 avoirdupois ounces net weight of product.

Not more than 6 containers each not exceeding 90 avoirdupois ounces net weight of product.

Not more than 4 containers each not exceeding 192 avoirdupois ounces net weight of product.

Note 2-Glass containers, empty or filled, not exceeding 2 liters capacity having a permanently affixed wrapper of polystyrene of nominal 15-mil thickness, or when not exceeding $\frac{1}{2}$ liter having a wrapper of polystyrene of nominal 2.5-mil thickness, or coating of modified polyethylene, in quantities of 10,000 pounds or more, need not meet the requirements of paragraph (c) as to the use of packing material. The wrapper must

completely cover glass container from shoulder area to the underside of base, or the wrapper must cover glass container from shoulder area to below the heel contour, in such a manner to prevent glass-to-glass contact as packaged for shipment.

Item 222-3

SPECIFICATIONS FOR FIBERBOARD BOXES

Liquids in Metal Cans or Rigid Plastic Inner Containers

Each Exceeding 2¹/₂ gallons in Fiberboard Boxes

(Applicable only in connection with Items [222](#) and [222-1](#))

Liquids in metal or high density polyethylene inner containers each exceeding 2¹/₂ gallons capacity may only be shipped in fiberboard boxes meeting the following requirements:

- (a)** Boxes must have inner and outer flaps meeting, or outer flaps meeting and gaps between inner top and bottom flaps filled with fiberboard pads.
- (b)** (1) For rectangular or square containers-box must meet all requirements for boxes testing not less than 200 pounds or having an edge crush test of 32 pounds.

(2) For cylindrical containers-box must meet all requirements for boxes testing not less than 275 pounds or having an edge crush test of 44 pounds.
- (c)** When two or more inner containers are packed in one box, the containers must be separated by partitions of:
 - (1) Doublewall corrugated fiberboard, or
 - (2) Two thicknesses of singlewall corrugated fiberboard.
- (d)** Where inner containers have extended spouts, suitable protection to prevent damage to spouts must be provided.
- (e)** Total capacity of containers in one box must not exceed nine gallons.
- (f)** Box may have die-cut hole in top flaps over closure cap and may be perforated along score lines around such die-cut hole and into flaps to permit easy opening.

Item 222-4

SPECIFICATIONS FOR FIBERBOARD BOXES

Bag in a Box

(Applicable only in connection with Items [222](#) and [222-1](#))

Except as otherwise provided in separate descriptions of articles, the following specifications and requirements must be observed for liquids, semi-liquids or articles in liquids, when in plastic bags or semi-rigid containers in fiberboard boxes:

Containers of three gallon capacity or larger will be considered as 'in bulk' in boxes or drums. When containers have capacity of less than three gallons the bag will be considered an inner container.

Bags must be of single or multi-ply plastic film having a minimum total wall thickness of not less than three mils (.003 inch) and may be in combination with other materials in laminated form.

Bags must be closed to effect a liquid tight seal by snap-locking plastic fittings, or by adequately heat sealing, crimping or tying. When wire tie is not plastic coated, ends of wire must be looped. Discharge or dispensing tubes must be securely plugged, crimped or heat sealed. Boxes may be die-cut or perforated to provide an opening for dispensing spigot or valve.

The filled bags must be in corrugated or solid fiberboard boxes as follows:

(1) The void between the top of the filled closed bag and the inside of the top of the box must not exceed 1½ inches. The bag must not be adhered to the container at any point.

(2) Boxes having gross weights not exceeding 20 pounds must be constructed of fiberboard having a bursting strength of not less than 200 pounds or an edge crush test of not less than 32 pounds. Except as to boxes constructed with full overlap inner flaps, boxes must have top and bottom pads made of corrugated fiberboard having a bursting strength of not less than 125 pounds or an edge crush test of not less than 23 pounds.

Manufacturers' joint of boxes must be taped or glued. Box design may also be a side-slotted tray with a hinge lid. Lid must have full-depth side-panel flanges and a glue-tab panel extending the length of the lid not less than 1¾ inches in width. All flaps and panels must be securely glued. Top and bottom pads may be omitted.

(3) Boxes having gross weights exceeding 20 pounds but not exceeding 40 pounds must be made of fiberboard having a bursting strength of not less than 200 pounds or an edge crush test of not less than 32 pounds. Boxes must have a joined tube or liner made of fiberboard having a bursting strength of not less than 200 pounds or an edge crush test of not less than 32 pounds. The joint of the tube or liner must be taped or glued. Except as to boxes constructed with full overlap inner flaps, boxes must have top and bottom pads made of corrugated fiberboard having a bursting strength of not less than 125 pounds or an edge crush test of not less than 23 pounds. Box design may also be a side-slotted tray with a

hinge lid. Lid must have full-depth side-panel flanges and a glue-tab panel extending the length of the lid not less than $1\frac{3}{4}$ inches in width. All flaps and panels must be securely glued. Tube or liner and top and bottom pads may be omitted. Inner edges of minor flaps of tray portion must be crushed $\frac{1}{4}$ inch.

OR

For boxes having a bursting strength of not less than 350 pounds or an edge crush test of not less than 51 pounds, having inner and outer flaps meeting, liner and top and bottom pads may be omitted.

(4) Boxes having gross weights exceeding 40 pounds but not exceeding 65 pounds must be constructed of fiberboard having a bursting strength of not less than 275 pounds or an edge crush test of not less than 44 pounds. Boxes must have a joined tube or liner made of fiberboard having a bursting strength of not less than 200 pounds or an edge crush test of not less than 32 pounds. The joint of the tube or liner must be taped or glued. Except as to boxes constructed with full overlap inner flaps, boxes must have top and bottom pads made of corrugated fiberboard having a bursting strength of not less than 125 pounds and an edge crush test of not less than 23 pounds. Box design may also be a side-slotted tray with a hinge lid. Lid must have full-depth side-panel flanges and a glue-tab panel extending the length of the lid not less than $1\frac{3}{4}$ inches in width, the tray and lid design must be such that all side panels are two board thicknesses. All flaps and panels must be securely glued. Tube or liner and top and bottom pads may be omitted.

For boxes of center special full overlap slotted style having gross weights not exceeding 50 pounds and flaps are adhered 50 percent of contact and folded in such a sequence so that a major flap makes up the inside and outside surfaces with minor flaps meeting between forming a total of three thicknesses, tube or liner and top and bottom pads may be omitted.

Item 222-5

SPECIFICATIONS FOR FIBERBOARD BOXES

Styles of Fiberboard Boxes

(Applicable only in connection with Items [222](#), [222-1](#), [222-2](#), [222-3](#) and [222-4](#))

The following are the descriptions of general styles of fiberboard boxes, but not inclusive of all styles:

(a) Slotted Style Boxes are usually made from one piece of fiberboard which is scored and slotted to form a body having flaps for closing each of two opposite faces. Lengthwise flaps either meet or overlap depending on the particular style of the box.

1. Regular Slotted Container (RSC)-When all flaps are the same length, but the two outer flaps meet in the center of the box when folded.
2. Center Special Slotted Container (CSSC)-When the inner and outer flaps are different lengths and both pairs of flaps meet in the center of the box.
3. Full Overlap Slotted Container (FOL)-When all flaps have the same length, the width of the box, and when closed the outer flaps are within one inch of overlap.
4. Half-Slotted Container (HSC)-An RSC that only has one set of flaps and has a separate cover that extends less than two-thirds its depth.
5. Overlap Slotted Container (OSC)-When all flaps have the same length, and when the box is shut, the outer flaps overlap by one inch or more.

(b) Telescope Boxes consist of a separate top, or top and bottom that fit over each other or a separate body. The top part of the container must extend to greater than two-thirds the depth of the box.

1. Full Telescope Design Container (FTD)-Consists of a body and cover of approximately equal depth sections, cover extending to bottom.
2. Full Telescope Half-Slotted Container (FTHS)-When a two-piece body is made from two half-slotted containers.
3. Partial Telescope Container (PT)-Consists of a body and cover of unequal depth sections. The section of lesser depth must extend over the sides of bottom section not less than two-thirds of the depth of the bottom section.

(c) Boxes with Covers consist of a top and bottom that fit over each other, a separate top, or a separate body. The top part of the container must extend to less than two-thirds the depth of the box.

1. Design Style Container with Cover (DSC)-Consists of a body and cover, but the cover has little depth and the body has more depth.
2. Double Cover Container (DC)-Consists of a joined tube (body) and top and bottom covers, covers extending over sides of body. The body, top and bottom are constructed from three separate blanks.
3. Interlocking Cover Container (IC)-When the walls of the top or bottom cover have flanges which interlock with flanges of the tube. The flanges of the body must be not less than three inches.

4. Single Cover Container (SC)-Consists of a body and a top cover, the cover extending over sides of body less than two-thirds of the depth of body.

(d) Slide Style Boxes consist of snugly fitting telescope tubes. The outer tube must be joined.

1. Double Slide or Single Lined Slide Style (DS)-When two tubes are so arranged to provide at least one thickness of fiberboard on all six surfaces.

2. Triple Slide or Double Lined Slide Style (TS)-When three tubes are so arranged as to provide at least two thicknesses of fiberboard on all six surfaces. The innermost slide need not be water resistant, nor comply with test requirements.

(e) Folders consist of one or more cut and scored pieces which provide an unbroken outer bottom surface. The lengthwise outer flaps must meet or overlap.

1. One-Piece Folder (OPF)-Constructed from a single piece of fiberboard.

2. Two-Piece Folder (2PF)-Constructed from two rectangular pieces of fiberboard which provide a double thickness at bottom.

3. Three-Piece Folder (3PF)-Constructed from three rectangular pieces of fiberboard.

4. Five Panel Folder (FPF)-When box is formed from a single cut and scored piece so as to provide an unbroken single thickness of fiberboard on three of the six surfaces and usually a double thickness on the remaining three surfaces of the box.

(f) Recessed End Boxes must be made from solid fiberboard or singlewall corrugated fiberboard. When opening is at top, the top, bottom and sides must be one piece of fiberboard overlapping not less than 1½ inches.

(g) Rigid (Bliss) Boxes are manufactured from three pieces of fiberboard, which include two identical end panels and a body that folds to form the two side panels, an unbroken bottom and the top. Flaps used to form the joints can be on the end pieces or the body or both. The end panels are attached to the body with special equipment, usually at the user's plant. Six or more joints must be sealed to set up the box before it is filled.

(h) Double Thickness Score Line Boxes consist of inner tube or slotted container tightly enclosed by regular slotted box, telescope box or box consisting of top and bottom sections which must meet; construction must be such as to provide not less than two thicknesses at all score lines. When inner container is constructed with inner and outer flaps which meet or overlap, outer box may be of one thickness over such flaps; when flaps do not meet or when inner element is a tube, the outer box must be so constructed as to provide not less than three thicknesses over such areas. When outer box is constructed

with flanged caps, flanges of such caps must be not less than three inches and must be securely stapled or stitched to inside walls. Manufacturer's joint of inner element and the manufacturer's joints of the outer box must be fastened with metal rivets, staples or stitches not more than one inch apart; OR must lap not less than 1¹/₄ inches, and be firmly glued throughout entire area of contact with a glue or adhesive which cannot be dissolved in water after the film application has dried.

Item 222-6

SPECIFICATIONS FOR FIBERBOARD BOXES

Definitions of Terms and Abbreviations

(Applicable only in connection with Items [222](#), [222-1](#), [222-2](#), [222-3](#), [222-4](#) and [222-5](#))

The following are terms found in various parts of Items [222](#), [222-1](#), [222-2](#), [222-3](#), [222-4](#) and [222-5](#).

ASTM International-A voluntary consensus organization formed for the development of standards on characteristics and performance of materials, products, systems and services.

Basis Weight (of containerboard)-Weight of linerboard or corrugating medium expressed in terms of pounds per 1,000 square feet (MSF).

Bending, Acceptable Quality-Combined corrugated board which is capable of bending along creases or score lines without fracturing to the point where it causes structure nonconformity.

Box-A rigid container having closed faces and completely enclosing the contents. When the term 'in boxes' is used in this Classification it signifies that if fiberboard boxes are used, such fiberboard boxes must comply with all requirements of Item [222](#). Also see 'Fiber or Fiberboard Box.'

Box Manufacturer's Certificate (BMC)-A circular or rectangular border printed on fiberboard boxes certifying that all applicable construction requirements of Item [222](#) have been complied with, containing box manufacturer's name and location for identification purposes.

Boxboard-A generic term to describe the various types of paperboard used to manufacture fiberboard boxes.

Bursting Strength-A test conducted to quantify a material's resistance to bursting measured in pounds per square inch as determined by the Mullen Tester.

Carton-A folding box used as an inner container made from boxboard. Cartons are not recognized as shipping containers.

Container-A term associated with the outside 'shipping container,' oftentimes designating a fiberboard box not complying with Item [222](#) and the term 'in boxes.'

Containerboard-The paperboard components from which corrugated and solid fiberboard are produced. Also see 'Fiberboard.'

Corrugated Board-A structure formed from two or more containerboard facings and one or more corrugated mediums used in making corrugated fiberboard boxes. Also see 'Singlewall,' 'Doublewall,' 'Triplewall.'

Corrugating Medium-Containerboard used in forming the fluted portion of the corrugated board which is adhered to the outside facings.

Corrugation-See 'Flute or Corrugation.'

Die-cut-The stamped form or process of shaping, cutting, blanking or perforating fiberboard by a die-cutting operation.

Design style-A style of fiberboard trays or caps having flaps scored, folded and secured at flange sidewalls forming the depth, as opposed to a slotted style having a set of major and minor closing flaps.

Dimensions:

Length-The larger of the two dimensions of the open face.

Width-The lesser of the two dimensions of the open face.

Depth-The distance between the innermost surfaces of the box measured perpendicular to the length and width.

Doublewall-The structure formed by three flat facings and two intermediate corrugated mediums.

Edge Crush Test (ECT)-A test conducted upon a sample of corrugated fiberboard in its vertical position with flutes oriented in the direction of loading to determine its resistance to compression measured as pounds per inch of width. Also referred to as the Short Column Test.

Facings-Containerboard, usually linerboard, used as the flat members of combined corrugated board. 'Linerboard' and 'Facings' are sometimes erroneously called 'Liners.' See definition of 'Liner (Sleeve)' below.

Fiber or Fiberboard Box-A shipping container made of either corrugated or solid fiberboard having a minimum of six faces and completely enclosing its contents. For classification purposes, when the term 'box' is used, the structure must comply with all requirements of Item [222](#).

Fiberboard-Fiber sheets that are used to produce corrugated or solid containers.

Fibre Box Association (FBA)-A non-profit organization that represents and serves the corrugated industry.

Flute or Corrugation-The wave-shape form in the corrugating medium. Approximate flute pitches/wave frequencies are:

A-flute = 33 flutes/ft

B-flute = 47 flutes/ft

C-flute = 39 flutes/ft

E-flute = 90 flutes/ft

F-flute = 125 flutes/ft

Glued (firmly)-Firm gluing is indicated when mutilation of the surface fibers accompanies separation of joined areas after drying.

ISTA (International Safe Transit Association)-A non-profit organization which establishes laboratory performance test procedures and certifies laboratories to conduct these test procedures.

Liner (Sleeve)-A creased fiberboard sheet inserted in a container and covering all sidewalls.

Linerboard-Sheets of paperboard that are glued to the corrugating medium to construct containerboard or may be layered to produce solid fiberboard.

Manufacturer's Joint-The 'joint' is that part of the box where the ends of the sheet are joined together by taping, stitching or gluing and is normally oriented as a vertical corner of a box.

Medium-See 'Corrugating Medium.'

Mullen Test-See 'Bursting Strength.'

Package-A fiberboard container not necessarily complying with the requirements of Item [222](#) for a 'box.' (See Item [680](#), Sec. 5.) Also, one of the special authorized containers

described in detail in the Classification in the section titled 'Specifications for Numbered Packages,' established as an exception to a general packaging rule.

Pad (Slip Sheet)-A corrugated or solid fiberboard sheet or other authorized material used for extra protection or for separating tiers or layers of articles when packed or palletized for shipment.

Paperboard-The broad classification of materials made of cellulose fibers, primarily wood pulp and recycled paper stock, and typically used in packaging applications. The major sub-types of Paperboard are Containerboard and Boxboard.

Partitions-A set of corrugated or solid fiberboard pieces slotted so they interlock when assembled to form a number of cells into which articles may be placed for shipment.

Ply-Any of the several layers of solid fiberboard.

Puncture Test-The strength of material expressed in inch ounces per inch of tear as measured by the Beach puncture tester. (See Item [222](#), Sec. 3, Note 1.)

Score Line-A crease or a line of compressed fiberboard to facilitate bending or folding.

Seam-The junction created by any free edge of a container flap or wall where it abuts or overlaps on another portion of the container and to which it may be fastened by tape, stitches or adhesive in the process of closing the container.

Shell-A sheet of corrugated or solid fiberboard scored and folded to form a joined or unjoined tube open at both ends.

Singleface-Corrugated fiberboard constructed having a flat single facing adhered to a corrugated medium.

Singlewall-The structure formed by one corrugated inner medium glued between two flat facings.

Sleeve-see 'Liner (Sleeve).'

Solid Fiberboard-A solid board made by laminating two or more plies of containerboard.

TAPPI (Technical Association of the Pulp and Paper Industry)-A technical society which develops and disseminates knowledge on the technology of pulp, paper and paperboard.

Triplewall or Triwall-The structure formed by four flat facings and three intermediate corrugated mediums.

United Inches-The summation of the outer dimensions of a fiberboard box, length, width and height (depth) added.

Water Resistant-A board treated with water-repellent materials or so calendered as to have a degree of resistance to damage or deterioration by water in liquid form.

Weight of Facings, Minimum Combined-The summation of weight per thousand square feet of all facings in the board structure, excluding the weight of coatings, impregnants, corrugating medium and the adhesive.

Item 299

NUMBERED PACKAGES-AUTHORIZATION AND CERTIFICATION

Sec. 1. The numbered packages, containers or other forms of shipment set forth in 'Specifications for Numbered Packages' are authorized for use ONLY when item descriptions contain reference to such specific package numbers. Package numbers containing no lettered suffix are in numerical sequence, followed by package numbers containing a lettered suffix ('F' or 'S' series), also in numerical sequence. Where package numbers are missing, no package specifications are assigned such unused numbers.

Sec. 2. Numbered packages must bear a legible package certificate on an outside surface, in the form, size ($3\frac{1}{2} \times 2$ inches, plus or minus $\frac{1}{4}$ inch), type and wording as illustrated. City and state may be either that of the manufacturing or corporate location. When package has a length of less than 10 inches or a width of less than 9 inches, certificate may be reduced in size, but outside dimensions must be not less than $2\frac{1}{4} \times 1\frac{1}{4}$ inches. The certificate may bear an identifying symbol or trademark of the company in lieu of the company's name. Such symbol or trademark must be registered with the Freight Classification Development Council, but only one identifying symbol or trademark may be registered for each company.

PACKAGE CERTIFICATE

**THIS PACKAGE MEETS ALL CONSTRUCTION REQUIREMENTS
OF THE NATIONAL MOTOR FREIGHT CLASSIFICATION FOR**

PACKAGE NO.
000

(COMPANY)

(CITY & STATE)

Sec. 3. Except as specifically provided to the contrary in individual package descriptions, packages or containers referred to as 'boxes,' when made of fiberboard, must comply with the provisions of Item [222](#) and may, on a voluntary basis, bear the appropriate circular certificate of box manufacturer as shown in Sec. (a) of Item [222](#)-1 in addition to the package certificate shown in Sec. 2 of this rule.