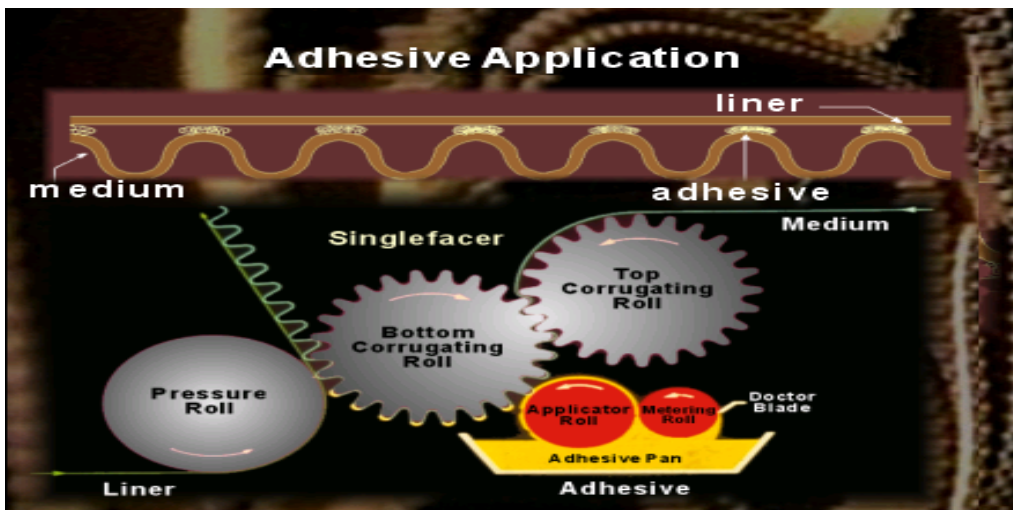
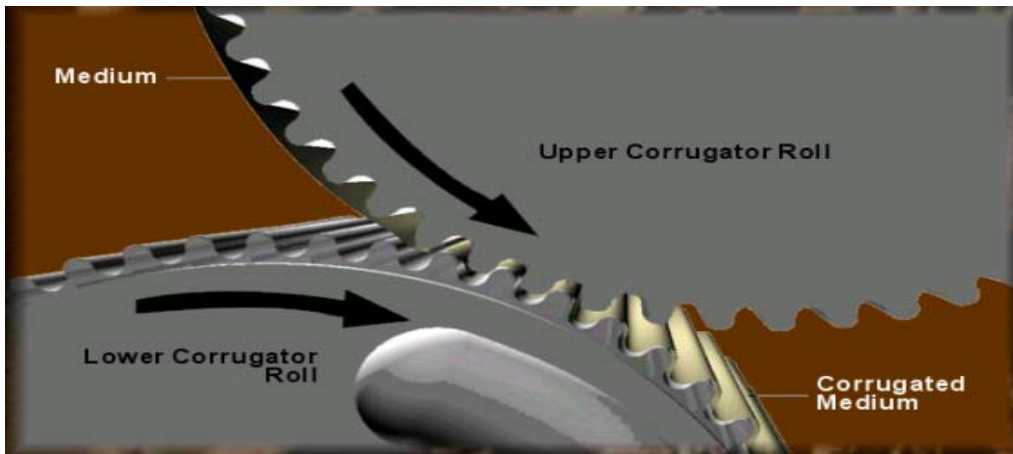
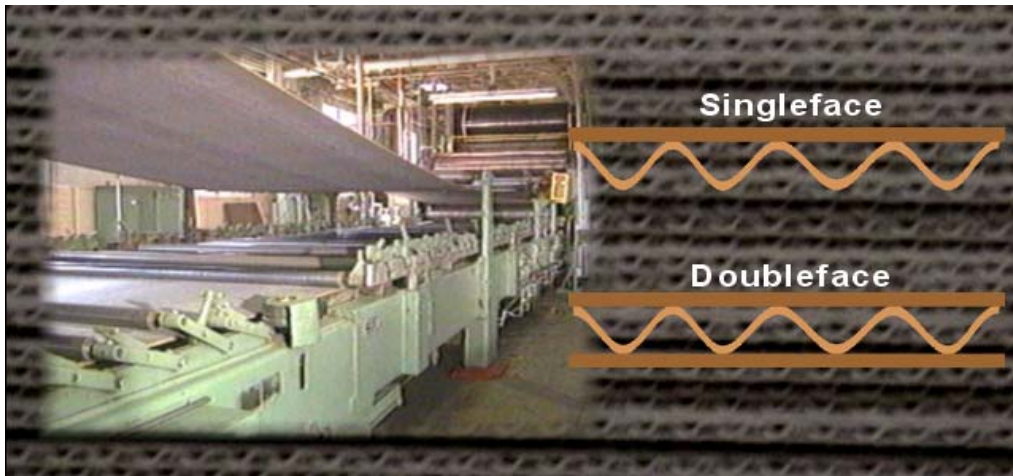
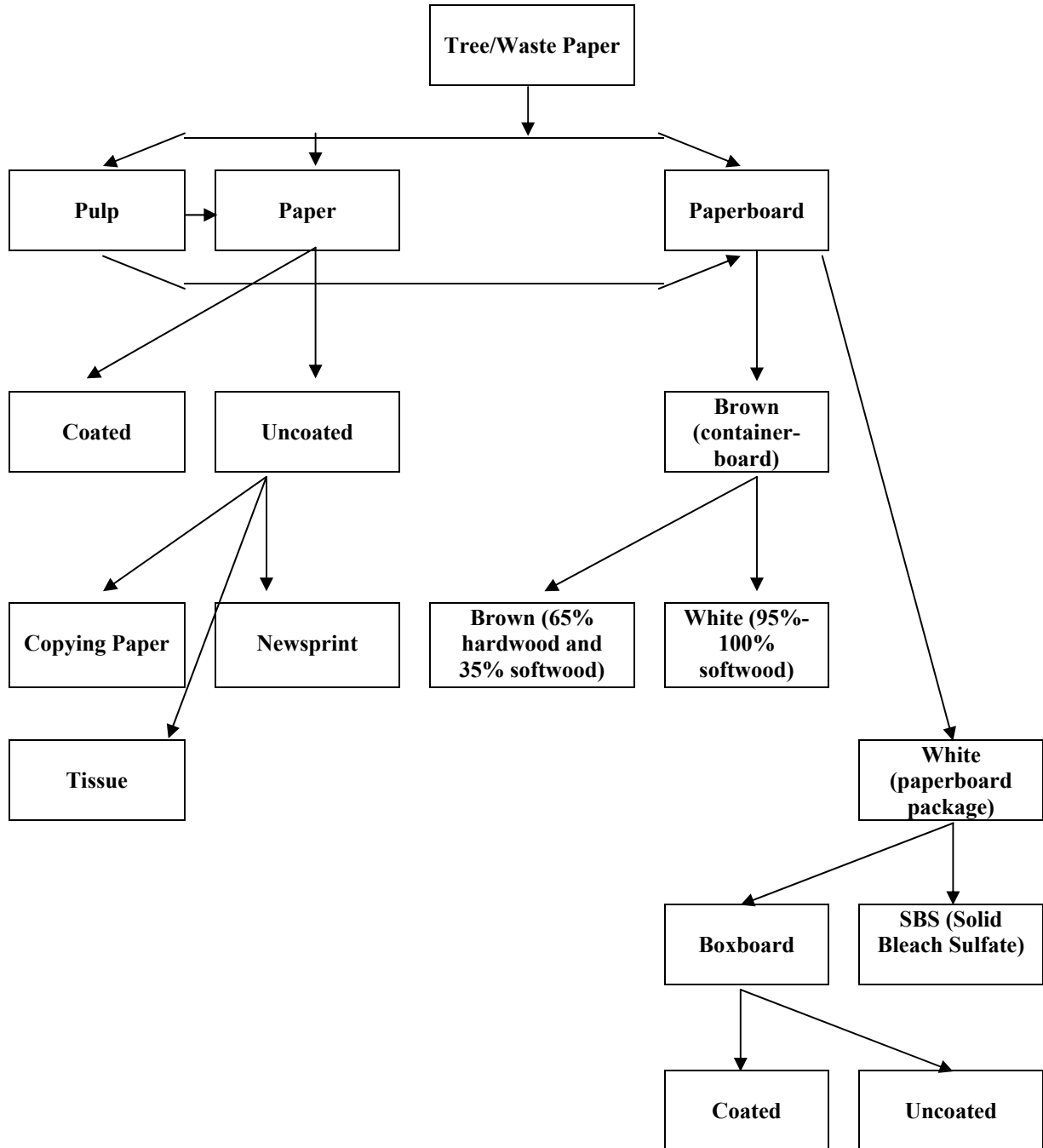


Terminology On Paper & Pulp: Types of Paper and Containerboard, Containerboard Grades and Tests



Prepared for the Meeting of the
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By Aselia Urmanbetova
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Paper Products Chart: Containerboard



Examples of Containerboard Grades/Mead Corporation:
(Refer to the Glossary for the Explanation of the Terms)

Standard Grades					
Grade	Basis Weight	Moisture	Ring Crush	Concora	
26 SC	26.0	9.0	N/A	63	
30 SC	30.0	9.0	50	68	
33 SC	33.0	9.0	60	72	
36 SC	36.0	9.0	71	79	
40 SC	40.0	9.0	82	79	
45 SC	45.0	9.0	102	95	
Light Weights					
Grade	Basis Weight	Moisture	Porosity	Concora	STFI
18 SC	18.0	7.5	30	33	9.5
20 SC	20.0	7.5	30	35	10.5
23 SC	23.0	9.0	30	59	12.0
Polar Chem					
Grade	Basis Weight	Moisture	Ring Crush	Concora	Wet Mullen
30 PC	30.0	9.0	50	68	4.0
33 PC	33.0	9.0	60	72	4.0
36 PC	36.0	9.0	71	79	4.0
40 PC	40.0	9.0	82	79	4.0
45 PC	45.0	9.0	102	95	4.0

Paper Products and Containerboard Glossary

B Flute A flute that is approximately 0.097 inches high. There are 47 ± 3 flutes per foot.

Base Paper (Body Stock) The base stock for plain or decorated coated papers and boards. It may be uncoated or precoated on the paper machine. It is also used in connection with industrial papers before they are treated. Because it can usually be custom made and has a variety of uses, it cannot be described as containing certain amounts of any particular kind of pulp nor is there any way to refer to weights and colors.

Basis Weight (pound/ream, or pound/1000ft²) A measurement of mass per unit of area that is expressed in pounds per thousand square feet. Basis weight is used to describe linerboard, corrugating medium, and boxes. The weight, in pounds, of a ream of paper, usually consisting of 480, 500, or 1000 sheets of specified size as stated in definition of the basic size for the specified grade. The standard ream size varies with different grades of paper according to trade practices. As a general reference, sometimes the weights are converted and expressed as the weight of an arbitrary standard ream of 500 sheets, 24 by 36 inches.

Bliss Machine A corrugated case erecting machine which glues two small end panels to a main body.

C Flute A flute that is approximately 0.142 inches high. There are 39 ± 3 flutes per foot.

Coated Paper Any paper, which has been coated. This term covers a wide range of qualities, basis weights, and uses.

Combo Bins, Jumbo Boxes, Bulk Bins or Bulk Boxes Bulk boxes can hold and ship products weighing up to several thousand pounds. Common products packed in bulk boxes are meats, resins, powders, furniture, automotive parts and any bulk shipment. Common styles, which can be produced in a wide range of sizes, include square, rectangular and octagon.

Compression Strength A corrugated box's resistance to uniformly applied external forces. Top-to-bottom compression strength is related to the load a container may encounter when stacked. End-to-end or side-to-side compression may also be of interest for particular applications.

Construction Paper Sheathing paper, roofing, floor covering, automotive, sound proofing, industrial, pipe covering, refrigerator, and similar felts.

Containerboard Solid fibre or corrugated and combined board used in the manufacture of shipping containers and related products. Also the component materials used in fabrication of corrugated board and solid fibre combined board. The raw materials used to make containerboard may be virgin cellulose fiber, recycled fiber, or a combination of both.

Chipboard A paperboard used for many purposes that may or may not have specifications of strength, color, or other characteristics. It is normally made from a paper stock with a relatively low density in thickness of .006 of an inch and up.

Corrugated Container A box, its most common form, is manufactured from containerboard - layers of linerboard and one layer of medium. The layers are combined on a corrugator, a machine that presses corrugations into the medium and laminates a layer of linerboard to each side. The sheets are folded, printed, and glued or stapled to make a finished box. There are four common types of corrugated containerboard: single face, single-wall, double-wall, and triple-wall.

Corrugating Medium A paperboard used by corrugating plants to form the corrugated or fluted component in making corrugated combined board, corrugated wrapping, and the like. It is usually made from chemical or semichemical wood pulps, straw, or reclaimed paper stock on cylinder or fourdrinier machines.

Corrugator The machine that unwinds two or more continuous sheets of containerboard from rolls, presses flutes into the sheet(s) of corrugating medium, applies adhesive to the tips of the flutes and affixes the sheet(s) of linerboard to form corrugated board. The continuous sheet of board may be slit to desired widths, cut off to desired lengths and scored in one direction

Cotton Fiber Paper that contains 25% or more cellulose fibers derived from lint cotton, cotton linters and cotton or linen cloth cuttings. Sometimes flax is used in place of linen cuttings. The term is used interchangeably with rag content and cotton content papers.

Cover Paper Any wide variety of fairly heavy plain or embellished papers, which are converted into, covers for books, catalogs, brochures, pamphlets, etc. It is a specific coated or uncoated grade made from chemical wood pulps, and/or cotton pulps. Good folding qualities, printability, and durability characterize it.

Curtain Coating A method to coat corrugated board on one or both sides with a hot-melt wax blend.

Cylinder Paper Machine One of the principal types of papermaking machines, characterized by the use of wire-covered cylinders or molds, on which a web is formed. These cylinders may be partially immersed and rotated in vats containing a dilute stock suspension or may be equipped with a headbox or other apparatus for distributing the fibers. The pulp fibers are formed into a sheet on the mold as the water drains through, leaving the fibers on the cylinder face. The wet sheet is couched off the cylinder onto a felt, which is held against the cylinder by a couch roll. A cylinder machine may consist of one or several cylinders, each supplied with the same or with different kinds of stock. In the case of a multi-cylinder machine, the webs are successively couched one upon the other before entering the press section. This permits wide latitude in thickness or weight of the finished sheet, as well as in the kind of stock used for the different layers of the sheet. The press section and the dry end of the machine are essentially the same as those of other types of machines.

Deinking A process in which most of the ink, filler and other extraneous material are removed from printed and/or unprinted recovered paper. The result is a pulp which can be used, along with varying percentages of wood pulp, in the manufacture of new paper, including printing, writing and office papers as well as tissue.

Die Cut Die Cuts are corrugated that has been processed through a machine that uses flat or rotary steel rule dies to perforate, cut and otherwise stamp out a part that cannot be produced by a conventional slotting press.

Digester A cylindrical or spherical vessel used to treat cellulosic materials with chemicals under elevated pressure and temperature, so as to produce pulp for papermaking.

Direct Print Also known as post print, is when printing is performed after the containerboard is combined and cut into corrugated sheets.

Double-Wall Three flat facings of linerboard, one glued to each side of two corrugated mediums.

E Flute A flute that is approximately 0.062 inches high. There are 90 ± 4 flutes per foot.

Edge Crush Test (ECT) The amount of force needed to crush on-edge combined board. This is a primary factor in predicting the compression strength of the completed box. This is a common test performed on finished boxes, which may have to meet minimum edge crush values.

Flexo Folder Gluer A type of converting equipment found in a box plant. The flexo folder-gluer can print and cut corrugated board into box blanks. In addition, the flexo folder-gluer applies glue to the blanks, folds them into knocked-down boxes, and bundles and stacks them.

Fourdrinier Paper Machine Named after its sponsor, with its modifications and the Cylinder machine, comprise the machines normally employed in the manufacture of all grades of paper and board. The fourdrinier machine, for descriptive purposes, may be divided into four sections: the wet end, the press section, the drier section, and the calender section. In the wet end, the pulp or stock flows from a headbox through a slice onto a moving endless belt of wire cloth, called the fourdrinier wire or wire, of brass, bronze, stainless steel, or plastic. The wire runs over a breast roll under or adjacent to the headbox, over a series of tube or table rolls or more recently drainage blades, which maintain the working surface of the wire in a plane and aid water removal. The tubes or rolls create a vacuum on the downstream side of the nip. Similarly, the drainage blades create a vacuum on the downstream side where the wire leaves the blade surface, but also performs the function of a doctor blade on the upstream side. The wire then passes over a series of suction boxes, over the bottom couch roll (or suction couch roll), which drives the wire and then down and back over various guide rolls and a stretch roll to the breast roll. The second section, the press section, usually consists of two or more presses, the function of which is to mechanically remove further excess of water from the sheet and to equalize the surface characteristics of the felt and wire sides of the sheet. The wet web of paper, which is transferred from the wire to the felt at the couch roll, is carried through the presses on the felts; the texture and character of the felts vary according to the grade of paper being made. The third section, the drier section, consists of two or more tiers of driers. These driers are steam-heated cylinders, and the paper is held close to the driers by means of fabric drier felts. As the paper passes from one drier to the next, first the felt side and then the wire side comes in contact with the heated surface of the drier. As the paper enters the drier train approximately one-third dry, the bulk of the water is evaporated in this section. Moisture removal may be facilitated by blowing hot air onto the sheet and in between the driers in order to carry away the water vapor. Within the drier section and at a point at least 50% along the drying curve, a breaker stack is sometimes used for imparting finish and to facilitate drying. This equipment is usually comprised of a pair of chilled iron and/or rubber surfaced rolls. There may also be a size

press located within the drier section, or more properly, at a point where the paper moisture content is approximately 5 percent. The fourth section of the machine, the calender section, consists of from one to three calender stacks with a reel device for winding the paper into a roll as it leaves the paper machine. The purpose of the calender stacks is to finish the paper, i.e., the paper is smoothed and the desired finish, thickness or gloss is imparted to the sheet. The reel winds the finished paper into a roll, which for further finishing either can be taken to a rewinder or, as in the case of some machines, the rewinder on the machine produces finished rolls directly from the machine reel. The wire, the press section, the several drier sections, the calender stacks, and the reel are so driven that proper tension is maintained in the web of paper despite its elongation or shrinkage during its passage through the machine. There are two modifications of the fourdrinier in use, known as the Harper and the Yankee or M.G. machine, which in principle are similar to the fourdrinier machine.

Flute One of the wave shapes pressed into corrugated medium. A, B, C, E and F are common flute sizes.

Flute Crush Describes when caliper of the board is reduced typically from excess pressure during the printing process. As a result, the board's strength and performance are dramatically reduced.

Freesheet Paper free of mechanical wood pulp or paper made from pulps having a high freeness (the rate at which water drains from a stock suspension through a wire mesh screen or a perforated plate).

Grade (1) A class or level of quality of a paper or pulp which is ranked, or distinguished from other papers or pulps, on the basis of its use, appearance, quality, manufacturing history, raw materials, or a combination of these factors. Some grades have been officially identified and described; others are commonly recognized but lack official definition. (2) With reference to one particular quality, one item (q.v.) differing from another only in size, weight, or grain; e.g., an offset book paper cut grain long is not the same grade as the same paper cut grain short.

Graphics Packaging This type of packaging is used when the shipping container must make a more attractive product presentation than a normal brown box. Enhanced graphics are produced through three-, four- and five-color direct printing on corrugated or preprint (graphics are printed on the outer liner prior to corrugated lamination). Labeled boxes are also included the graphics product line.

Heavyweight Medium Corrugating medium which has a basis weight of 30 pounds per thousand square feet or greater.

Independent Container Manufacturer/Box Plant Refers to a company that manufactures boxes, but not containerboard.

Inline Printing The process in which artwork or copy is printed on the same machine that either die cuts or folds the case.

Insulating Board A type of board composed of some fibrous material, such as wood or other vegetable fiber, sized throughout, and felted or pressed together in such a way as to contain a large quantity of entrapped or "dead" air. It is made either by cementing together several thin layers or forming a nonlaminated layer of the required thickness. It is used in plain or decorative finishes for interior walls and ceilings in thickness of 0.5 and 1 inch (in some cases up to 3 inches) and also as a water-repellent finish for house sheathing. Desirable properties are low thermal conductivity, moisture resistance, fire resistance, permanency, vermin and insect resistance, and structural strength. No single material combines all these properties but all should be permanent and should be treated to resist moisture absorption.

Integrated Container Manufacturer/Box Plant Refers to a company that manufactures boxes and containerboard.

Lightweight Medium Corrugating medium which has a basis weight of less than 26 pounds per thousand square feet.

Linerboard Paperboard used for the flat outer facings of combined corrugated board.

Kraft Paper A paper made essentially from wood pulp produced by a modified sulfate pulping process. It is a comparatively coarse paper particularly noted for its strength, and in unbleached grades is primarily used as a wrapper or packaging material. It can be watermarked, striped, or calendered, and it has an acceptable surface for printing. Its natural unbleached color is brown but by the use of semibleached or fully bleached sulfate pulps it can be produced in lighter shades of brown, cream tints, and white. In addition to its use as a wrapping paper,

it is converted into such products as: grocery bags, envelopes, gummed sealing tape, asphalted papers, multiwall sacks, tire wraps, butcher wraps, waxed paper, coated paper, as well as specialty bags and sacks.

Major Flaps The larger flaps of the box which typically meet in the center of the case for closure.

Mandrel A stainless steel, stationary block around which corrugated blanks are formed and glued.

Metalizer A patented design in which the minor flaps come into contact with the sides of a case to increase stability and compression strength.

Microflute or Mini-Flute A very small corrugating medium flute design. E, F, and N flute are typically considered microflutes. Microflute provides a smooth printing surface with characteristics close to carton board.

Minor Flaps The smaller flaps of the box.

MSF Abbreviation for thousand square feet. An area measure used for boxes, corrugating medium, and linerboard.

Newsprint A lightweight paper, made mainly from mechanical wood pulp, engineered to be bright and opaque for the good print contrast needed by newspapers. Newsprint also contains special tensile strength for repeated folding. It does not include printing papers of types generally used for purposes other than newspapers such as groundwood printing papers for catalogs, directories, etc.

Neutral Sulfite Semicheical (NSSC) A two-step pulping process to convert virgin fiber (logs, chips, and sawdust) into pulp, which is then used to make corrugating medium. The process uses a mild liquor, such as neutral sodium sulfite/sodium carbonate solution, for partial softening of chips, followed by a final separation of fibers by mechanical action.

Offset Paper Paper designed for use in offset lithography. Important properties include good internal bonding, high strength, dimensional stability, lack of curl, and freedom from fuzz and foreign surface material. Used on both sheet-fed and web presses. This is commodity offset.

Premium/Opaque Offset High quality offset markedly brighter and more opaque than Offset Paper as defined above. It is usually produced in smooth and vellum finishes and may have a companion cover paper. This is a mid-range product between Offset Paper and higher quality papers in the Text and Cover category.

Old Corrugated Containers (OCC) A fiber source comprised of old corrugated containers or old boxes which are collected/recovered from the waste stream. The boxes are converted into pulp, which is then used to make corrugating medium and other types of paperboard.

Packaging Papers These papers are used to wrap or package consumer and industrial products such as grocer's bags and sacks, shopping and merchandise bags, and multiwall shipping sacks used for shipping such products as cement, flour, sugar, chemicals and animal food. "Specialty" packaging papers are used for cookies, potato chips, ice cream, and similar products.

Paperboard One of the two subdivisions of paper. The distinction is not great, but paperboard is heavier in basis weight, thicker, and more rigid than paper. All sheets 12 points (0.012 inch) or more in thickness are classified as paperboard. There are exceptions. Blotting paper, felts, and drawing paper in excess of 12 points are classified as paper while corrugating medium, chipboard, and linerboard less than 12 points are classified as paperboard. The broad classes within paperboard include containerboard, boxboard, and all other paperboard.

Bleached Board A general term covering any board composed of 100% bleached fiber.

Bleached Packaging Paperboard A paperboard made from approximately 85% virgin bleached chemical pulp.

Bleached Paperboard A general term covering any board composed of 100% bleached fiber.

Blister Thermoformed semi-rigid plastic shell generally shaped to conform to product to be packaged.

Boxboard The general term designating the paperboard used for fabricating boxes. It may be made of wood pulp or paper stocks or any combinations of these and may be plain, lined, or clay coated.

Clay-coated boxboard A grade of paperboard that has been clay coated on one or both sides to obtain whiteness and smoothness. It is characterized by brightness, resistance to fading, and excellence of printing surface. Colored coatings may also be used and the body stock for coating may be any variety of paperboard.

Folding Boxboard A paperboard suitable for the manufacture of folding cartons, which can be made from a variety of raw materials on either a cylinder machine or a fourdrinier machine. It possesses qualities that permit scoring and folding, and has variable surface properties depending upon the printing requirements.

This classification includes such products as clay-coated boxboard, white patent coated news, manila lined news, and fourdrinier bleached kraft board.

Linerboard A paperboard that is used as the facing material in the production of corrugated and solid fibre shipping containers.

Medium The paperboard grade used to form the inner layer of corrugated board. It can be made of recycled material or wood pulp.

Recycled Paperboard Paperboard manufactured using 100 percent recovered paper, such as old newspapers, old corrugated containers, and mixed papers. Products include linerboard and corrugating medium; folding boxboard (both clay coated and uncoated) used for packaging cereal and other food products, soap powders, and other dry products; set-up boxboard, used for candy boxes, shoe boxes, perfume boxes and similar products. Recycled paperboard is also used for many non-packaging products, such as gypsum wallboard facing, tubes, cans and drums, matches, tags, tickets, game boards, and puzzles.

Solid Bleached Kraft The major uses are in clay-coated folding boxes for such products as frozen foods, butter, ice cream, and cosmetics, and cartons for milk, juices and other moist, liquid and oily foods, as well as for plates, dishes, trays, and cups.

Solid Bleach Sulfate (SBS) Paperboard made from virgin-bleached fibers in a single layer. SBS used in blister packaging is a special low density, high strength, high-brightness, board with good rigidity.

Unbleached Kraft The primary grade is linerboard, used as the facing material for corrugated boxes. Kraft folding boxboard is usually clay coated. Its largest market is beverage carriers. Other products include drums, cans, and tubes.

Partitions Fiber dividers that are inserted into a case to protect bottles and other sensitive material.

PolarChem™ Mead's brand name for wet strength medium. Wet strength medium is medium that has been chemically treated during manufacturing to impart higher resistance to rupture when saturated with water.

Porosity A structural property of paper reflected by the size distribution of pores.

Preprint A web (roll) of linerboard that has been printed and re-wound prior to the manufacture of combined board. Use requires special equipment on a corrugator to assure precise slit, score and cut-off operations.

Process Print The printing from a series of two or more half-tone plates to produce intermediate colors and shades.

Pulp Fibrous material prepared from wood, cotton, grasses, etc., by chemical or mechanical processes for use in making paper or cellulose products.

Chemical Pulp Pulp obtained by digestion of wood with solutions of various chemicals. The paper produced is strong and less prone to discoloration. The pulp yield is lower in this process. The principal chemical processes are the sulfate (kraft), sulfite, and soda processes. Chemical pulps are used to make shipping containers, paper bags, printing and writing papers, and other products requiring strength.

Brown Pulp A groundwood pulp made from wood, which is steamed before grinding. The color-bearing, non-cellulosic components of the wood remain with the pulp. The pulp is generally used for wrapping and bag paper.

Dissolving Pulp/Special Alpha A special grade of chemical pulp usually made from wood or cotton linters for use in the manufacture of regenerated or cellulose derivatives such as acetate, nitrate, etc.

Fluff Pulp A chemical, mechanical or combination chemical/mechanical pulp, usually bleached, used as an absorbent medium in disposable diapers, bedpads and hygienic personal products. Also known as "fluffing" or "comminution" pulp.

Kraft (Sulfate) Pulp Term refers to a strong papermaking fiber produced by the kraft process where the active cooking agent is a mixture of sodium hydroxide and sodium sulfide. The term "kraft" is commonly used interchangeable with "sulfate" and is derived from a German word which means "strong."

Market Pulp Wood, cotton, or other pulp produced for, and sold on, the open market, as opposed to that which is produced for internal consumption by an integrated paper mill or affiliated mill.

Mechanical Pulp Any wood pulp manufactured wholly or in part by a mechanical process, including stone-ground wood, chemigroundwood and chip mechanical pulp. Paper made by this process is opaque and has good printing properties, but it is weak and discolors easily when exposed to light due to residual lignin in the pulp. Uses include newsprint printing papers, specialty papers, tissue, toweling, paperboard and wallboard.

Sulfite Pulp A papermaking fiber produced by an acid chemical process in which the cooking liquor contains an excess of SO₂. The sulfite liquor is a combination of a soluble (such as ammonium, calcium,

sodium, or magnesium) and sulfurous acid. Calcium was commonly used in the past but is not as widely used now because of chemical recovery and pollution abatement problems.

Unbleached Pulp Pulp not treated with any bleaching agents.

Quality Tests Performed on Containerboard:

Air Permeability This test measures the air permeability, or porosity, of a sheet of paper or paperboard.

Bursting Strength of Paperboard & Linerboard Test of paperboard, including linerboard, is a complete measure of certain properties of the sheet structure, which is principally tensile strength and elongation.

Caliper Thickness (Caliper) of Paper, Paperboard & Combined Board Test measures the thickness of a single sheet of paper, paperboard or combined board with an automatically operated micrometer. Results can be automatically downloaded to a computer and data is statistically processed when larger samples are tested.

Concora Also called Fluted Edge Crush Resistance. Concora is the edgewise compression performance of fluted medium that determines the contribution of the medium to the compression strength of the completed container.

Creasability This test measures the force required to fold along the score.

Edge Crush Test or Edgewise Compressive Strength of Corrugated Fiberboard or ECT (Short Column Test) tests the compressive strength, parallel to the flutes, of a short column of single, double, or triple wall corrugated fiberboard, using three methods: Wax Dip, Neck Down, Clamping Device (Emmerson Apparatus).

Elmendorf Tear Test measures the force, perpendicular to the plane of the paper, required to tear multiple sheets of paper.

Flat Crush Test of Corrugated Board The test that measures the resistance of the flutes in corrugated board to a crushing force applied perpendicular to the surface of the board.

Grammage of Paper & Paperboard (Mass/Unit Area) Grammage is calculated from the ratio of the mass to the area. The Digital Balance is used for this test. Samples can be cut using a metal platen or a die-cut rectangle. Conditioning for a minimum of 24 hours is required for correct readings.

Internal Bond Strength of Paperboard (Z-Direction and Scott Ply Bond) This test measures the internal fibers' bond strength by separating the plies from each other. In the ZDT test, the plies are separated in the vertical direction, whereas in the Scott Ply Bond test plies are separated in the horizontal plane. This test uses the ZDT or Scott Ply Bond Instrument.

Moisture Content in Paper, Paperboard This test calculates the amount of moisture in paper or paperboard. Samples are weighed on the balance and the mass is recorded. Samples are then placed in the oven for 2 hours. Upon removal, the samples are re-weighed. The moisture content is then calculated.

Ply Separation of Solid and Corrugated Fiberboard (Wet) This is a test that evaluates the resistance to ply separation of a solid or corrugated fiberboard after exposure to water.

Ring Crush The test that measures the performance characteristics of the components of corrugated board. It correlates with the edgewise compression strength of paperboard.

Stiffness This test measures the stiffness of paper and paperboard by determining the bending moment in gram centimeter. Results are recorded in Taber Units. This is an important strength characteristics for all paperboard cartons.

Stiffness Flexural of Corrugated Board. The bending stiffness is a major factor in the overall top-to-bottom stacking strength of a finished box. Bending stiffness is related to the overall thickness of the board and the quality of the liners and medium used. This test measures the bending resistance of corrugated fiberboard in the MD & CD with a bench-type instrument. The instrument used avoids the influence of twist, warp, and washboard on the results.

Tensile Strength Or Tensile Breaking Strength and Elongation of Paper and Paperboard Test measures the force per unit width required to pull a specimen apart, the percentage of elongation at break, and the energy absorbed per unit area of the specimen before breaking.

Water Absorption Cobb (Cobb Test) This test determines the quantity of water absorbed by sized paper and paperboard in a specified time under standard conditions.

Rotary and Flatbed Die Cutters A type of converting equipment found in a box plant. A die cutter uses a die to cut the corrugated board into shapes. A cutting die consists of custom-made, steel tooling mounted on a wooden frame. Rotary die cutters use a circular motion to apply the die to the sheet, while platen or flatbed die

cutters use an up-and-down motion to make the cuts.

RSC Machine A corrugated case erecting machine which opens a regular slotted container and seals the bottom for use.

RSCs A common box style that can be used for most products.

Sesame Tape Tape that is applied during corrugation between the inside liner and medium. The tape increases the finished box's stacking strength.

Single-Wall Two flat facings of linerboard, one glued on each side of a corrugated medium. Also known as double face.

Solid Bleached Bristols A heavier printing paper produced on cylinder or fourdrinier paper machines in whites and colors. It is also used for conversion into office products and school supplies. Examples of bristols include index cards, tags, file folders, boarding passes, business cards, and postcards. Coated bristols are generally used for menus and as covers for booklets or pamphlets.

Specialty Grades of paper and/or paperboard made with specific characteristics and properties to adapt them to particular uses. Also refers to grades made in a given mill that are not the primary products of that mill.

Specialty Extrusion Coating A coating, which is applied by means of extrusion, either simultaneous with or separate from the actual extrusion itself. Coatings of the extrusion type are normally quite quick, solvent based and applied at elevated temperatures, usually associated with plastics.

Specialty Industrial Paper Papers intended for industrial uses, as opposed to those for cultural or sanitary purposes. Paper and board of all thickness and fiber types designed for special uses and manufactured to exact customer specifications. Includes abrasive paper, electrical insulation, filter paper, and similar grades.

STFI A test performed on finished boxes to measure edge crush and compression strength.

Text Paper A paper of fine quality and texture for printing. Text papers are manufactured in white and colors, from bleached chemical wood pulp or cotton fiber content furnishes with a decked or plain edge, and are sometimes watermarked. They are made in a wide variety of finishes, including antique, vellum, smooth, felt-marked, and patterned surfaces-some with laid formations. Designed for advertising printing, the principal use of text papers is for booklets, brochures, fine books, announcements, annual reports, menus, folders, etc.

Thin Papers Includes carbonizing, cigarette, bible and similar papers.

Tissue A general term indicating a class of papers of characteristic gauzy texture, in some cases fairly transparent. Includes sanitary tissues, wrapping tissue, waxing tissue stock, twisting tissue stock, fruit and vegetable wrapping tissue stock, pattern tissue stock, sales-book tissue stock, and creped wadding. Tissue papers are made on any type of paper machine, from any type of pulp including reclaimed paper stock. They may be glazed, unglazed, or creped, and are used for a variety of purposes. Examples are primarily sanitary grades such as toilet, facial, napkin, toweling, wipes, and special sanitary papers. There are also waxing, wrapping, and miscellaneous non-sanitary grades.

Triple-Wall Four flat facings of linerboard, one glued to each side of three corrugated mediums.

Ultra-Lightweight Medium Corrugating medium that has a basis weight less than 23 pounds per thousand square feet.

Wallboard (1) A type of fibreboard composed of a number of layers of chip, binders, or pulpboard, molded or pasted together and generally sized, either throughout or on the surface. It may also be nonlaminated and homogenous in nature. Wallboard is generally 3/16 to 1/4 of an inch in thickness. (2) A general term used to indicate a composition material used in the construction of partitions, side walls, and ceilings in interior construction; it is made generally of waste papers, wood pulp, or wood or other materials.

Wet Machine Board A very thick paperboard, used for bookbinders, shoeboard, automotive board, chair seat backing, coaster board, and the like.

Sources: Glossary of Mead Corporation available: <http://www.mead.com>,
American Forest and Paper Association (AFPA) available: <http://www.afandpa.org>, and
Rock-Tenn Package and Materials Testing Laboratory available: <http://www.rocktennlab.com/default.htm>.