Anexo C

En este anexo encontrarán un glosario de términos de la industria del empaque y del embalaje (Amcor, 2008).

Glossary of Packaging Terminology

Listed below are brief definitions of terms commonly used in the packaging industry.

Metal, Plastic and Flexible Packaging Definitions

- **2P** - Aluminium cans are 2P (two piece) cans, comprising a top and body. The body is formed from a sheet of aluminium and drawn to the required height, decorated in the round (up to six colours) and coated internally. The customer adds the top (second piece) after filling.
- **3P** - Steel cans are 3P (three-piece) cans comprising a top, a body and an end (base). The body is formed into a cylinder from a sheet of pre-printed or plain tin-coated steel and the end is seamed to it prior to delivery to the filler. The customer adds the top (third piece) after filling.
- **Blow Moulding** - Formation of a bottle from a molten plastic tube by blowing air into the mass, forcing the material to follow the shape of the mould.
- **Closures** - Closures are caps or lids used to seal beer and soft drink bottles and food jars and cans. Closures are made from plastic, steel or aluminium and can be screw, twist or pop-up style. Another type of closure is a plastic seal, which is used to reseal a metal can after opening. 'Closures' also refers to machinery used to apply the closures to containers after they are filled.
- **Composite Cans** - Cans made from paperboard (cardboard). A variety of barrier materials and fittings enable composite cans to be used for packaging food, powdered beverages, wine, spirits and perfume.
- **Flexible Packaging** - Covers a wide range of packaging that can be single and multi-layered and is supplied in reels or bags. It can be paper/poly/foil or nylon or a combination of materials which are supplied either plain/printed/coated and/or laminated to provide long shelf life properties. End products packaged include confectionery, snack foods, frozen foods, soups and pharmaceuticals.
- **Gravure Printing** - This printing medium is the transfer of ink from an etched cylinder such as a sunken surface to the substrate, eg. paper/film/foil. The equipment is a multi-station (up to nine) printing machine to print and/or coat up to eight colours on to a fast-moving web of material.
- **HDPE** - High-density polyethylene.
- **Injection Moulding** - The process of converting plastic pellets by using heat and pressure to inject the molten material into a water-cooled mould. The equipment can produce a number of products in the one injection.
- **LDPE** - Low density polyethylene.
- **Metallising** - Applying, through a vacuum process, a thin aluminium layer onto flexible plastic film substrates used to package a variety of foods.
Offset/Lithographic Printing - This printing medium is the transfer of ink from a sensitised plate, offset to a rubber blanket then transferred to the substrate. The equipment is a multi-station (up to eight) printing machine to print and/or coat up to six colours on to sheets or a fast-moving web.

- PET - Polyethylene Terephthalate.
- PP - Polypropylene.
- PVC - Polyvinyl chloride.
- Retort - The process of cooking food in the package it is sold in eg. baby food or soups that have meat or vegetables that need to cook at a temperature to kill off the micro-organisms and avoid botulism. The temperature is generally around 121° C. Amcor is the only company today that has this capability in PET.
- Rigid Plastic Packaging - Freestanding plastic bottles and plastic fittings. The main raw materials used are PET, HDPE and PP.
- Thermoforming - The process of shaping a plastic sheet of styrene or PVC under heat and pressure.

Fibre Packaging Definitions

- Broke - Paper trimmings, paper damaged due to breaks on a paper machine or not manufactured to the required quality specification. Broke is usually fed back into the paper manufacturing process.
- Carton Dimensions - Dimensions refer to the interior of a carton, measured in millimetres of Length x Width x Height. Length (L) is the longer side of the opening and Width (W) is the shorter. Height (H) is the length between the openings on either end.
- Cellulose - The main fibrous material in paper.
- Corrugated Box Plant - An operation that has both corrugating capability and converting equipment. Most corrugated boxes throughout the world are produced in integrated box plants.
- Corrugated Fiberboard - This material refers to the composite structure formed by gluing one or more sheets of fluted, corrugated material to one or more flat facings of linerboard.
  - Single-wall carton
    - This is a corrugated fiberboard carton made by gluing a sheet of fluted corrugated material between two flat sheets of linerboard.
  - Double-wall carton
    - This is a corrugated fiberboard carton made of three sheets of linerboard interleaved with two sheets of fluted corrugated material.
- Flute, Corrugation - This refers to the wave shapes, or ridges, that are pressed into a sheet of material that has been softened by steam. This material is then sandwiched between flat sheets of material to form corrugated fiberboard. Flute serves as protective cushioning and helps strengthen a carton. Different widths and configurations offer distinctive performance advantages. Corrugated cartons feature either of the types below.
  - A-Flute : Flute thickness of 4.7 mm
  - B-Flute : Flute thickness of 2.5 mm
  - C-Flute : Flute thickness of 3.6 mm - Depending upon the stacking strength, puncture resistance, crush strength required for the carton, one of the above three commonly corrugations are used in single-wall, general-purpose cartons. A-Flute...
has excellent stacking Strength, B-Flute has good puncture resistance and C-Flute has
the optimum combination of both.

- **E-Flute**: Flute thickness of 1.5 mm
  Is generally used for light applications such as Pizza Boxes, Mailers, Shoe boxes etc.

- **BC Flute**: This flute is a double-wall combination made from one B-flute, single-wall sheet and one C-flute, single-wall sheet. The result is a strong corrugation used when extra thickness or stacking strength is needed.

- **AC Flute**: This flute is a double-wall combination made from one A-flute, single-wall sheet and one C-flute, single-wall sheet. The result is a very strong corrugation used when extra strength is needed.

**Die Cutting** - The process of cutting a corrugated sheet into a shape which will convert to the required box size when assembled. A rotary die cutter uses a cylindrical die and is generally capable of higher speed than a flatbed die cutter, as the sheet flow basically continues. A flatbed die cutter uses a flat die and the corrugated sheet momentarily stops to enable the required cutting. This method provides both high accuracy and intricate shapes not available from the rotary process.

**Double-facer** - A double-facer, or double backer, is the part of a corrugator which bonds single-face board to another liner to produce a double-faced corrugated sheet.

**Folding Cartons** - Multi-layer paperboard cartons which are printed/coated and cut into carton blanks. The carton blanks also incorporate creases, which enable the carton to be formed for packaging the customer's product.

**Functional Coatings** - The lamination of polyethylene and/or plastic or foil films to paper substrates, providing a water or greaseproof barrier. Typically used in high humidity applications in both tropical and cold temperatures, for use with meat, seafood, pet food, fruit and produce.

**Kraft** - This term describes the natural, unbleached corrugated fiberboard used in making cartons

**Linerboards** - Linerboards form the inner and outer facings of corrugated fibre boxes and are chosen for their structural and/or decorative properties. They can be made from white or brown, kraft or recycled fibres, or a blend of both.

**Mechanical Pulp** - Pulp produced by reducing pulpwod logs and chips into their fibre components by the use of mechanical energy, via grinding stones or refiners.

**Pasting** - Two, three or four plies of paper and paperboard are glued together to form a solid fibreboard with a thickness ranging between 0.8mm to 3mm. The boards are used for a variety of applications such as shoe boxes, screen printing, display boxes, board games, book covers and ring binders.

**Printing** - Most printing of corrugated board is done by the flexographic method, which can be thought of as a sophisticated method of printing with rubber stamps. Flexo printing is used for both pre-print and post-print applications. Most printing on corrugated boxes is done in the conversion process after the corrugated sheet is produced, ie. post-printing. Pre-printing refers to the process of printing a design or pattern onto a roll of paper before it proceeds to the corrugating stage. This process is typically used for high volume jobs where quality printing is required.

**Pulp** - Primary raw material from which paper is made. A fibrous product produced by mechanical or chemical processes, or a combination of both.
• **Sheet Feeder** - A corrugating plant that has no converting equipment and produces only corrugated sheet. Its customers are typically independent sheet plants. The term 'sheet feeder' can also mean the device at the front of die cutters/flexo folder gluers.

• **Sheet Plant** - Comprises converting equipment and does not produce its own corrugated board. Typically, sheet plants are smaller operations offering their customers personalised service.

• **Single-facer** - The section of a corrugator which forms the corrugated shape in the medium, applies adhesive to it and then bonds it to the flat linerboard. The output from a single-facer is referred to as single-face board. Most corrugators have more than one single-facer to enable different flute sizes to be used.

• **RSC** - This is the abbreviation for Regular Slotted Carton, the most commonly used style of carton. One side is glued, taped or stapled during manufacturing, making this carton well suited for easy set-up, filling, and closure.