

Containerboard Definitions

(by Robert Guide)

- **Containerboard:** The materials that go into the manufacture of corrugated containers or boxes. They consist of facings called linerboard, and the intervening fluting called corrugating medium.
- **Boxboard:** Material that goes into folding cartons and trays used to package commodities at the point of sale. These cartons are not corrugated or intended to protect the contents during shipment. (shoe boxes, candy boxes, etc.)
- **Linerboard:** The facings or outside & inside surfaces of the corrugated panel that constitutes a box. It is generally made from a mixture of kraft and recycled pulps.
- **Corrugating Medium:** The material that is fluted on a corrugating machine, and separates the inside and outside facings of a corrugated panel. It is generally made from a mixture of semi-chemical and recycled pulps.
- **Kraft liner:** A linerboard that contains at least 80% virgin kraft pulp fibers.
- **Test liner:** A linerboard that contains less than 80% virgin kraft pulp fibers. The distinction between these two grades of liner has become blurred, and is not generally observed. Most of what is reported as kraft liner actually contains less than 60% virgin kraft fiber. It is impossible to distinguish between virgin and recycled fibers once the fibers have been dried. The distinction between these grades is not recognized domestically, but is important in Europe and the Pacific Rim, where test liner typically sells for 20% less than kraft liner.
- **Semichem medium:** A corrugating medium that contains a minimum of 75% semi-chemical pulp.
- **Recycled medium:** A corrugating medium that contains more than 25% recycled fibers. Again, this definition is not observed domestically, since most mediums labeled semi-chemical actually contain 40-50% recycled fibers.
- **Integrated containerboard company:** A company that manufactures both containerboard and the finished corrugated box. These companies have a variety of practices with respect to transfer pricing and inventory accounting, depending upon which operation they want to make look good. Generally, such companies supply their own box plants as much as possible.
- **Independent box companies:** These companies are not associated with a paper mill and buy their components on the open market. They can buy from integrated containerboard companies that have excess containerboard supply or from containerboard companies that have no box plants.
- **Barter:** A common practice in the industry whereby different companies "trade" containerboard, and send product to a nearby competitor's box plant, thereby saving freight costs. No money ever changes hands. Companies simply agree on the relative value of their product, and trade equivalent amounts of material.
- **Basis Weight:** The amount of fibers used to produce a certain area of containerboard. Domestically, it is expressed as #/1000 sq. ft., and overseas it is expressed as grams/sq. meter.

In addition to these definitions, it is helpful to understand other basic facts of life in our industry such as

- Box plants are very influential in establishing the maximum price of containerboard. They must be able to pass on any price increases from the mills.
- Export is an important aspect of the health of our industry. Even though it may represent only a small portion of our productive capacity (5-15%), it represents the incremental tonnage that determines how much profit we can make. Domestic demand has been stagnant for the last ten years.

- Productive capacity has increased markedly in the last 10 years in spite of the fact that no new machines have been built in the U.S. The reason is 2-fold:
- Technological improvements which have increased the output of existing machines
- Changes in shipping regulations which allow us to make the same number of boxes with 10-15% less fiber. This has made a tremendous impact (at least a 5% reduction in containerboard demand).