Types of Paperboards

By Awadhoot Shendye
PAPERBOARDS

• INTRODUCTION
  – Cellulose derived substrate, with thickness greater than 200 microns
    • virgin and/or recycled fibre
    • specially processed
      – For better appeal and printability
      – For imparting barrier properties
      – For rigidity and protection
      – For meeting Legal & Health demands
  – Made from renewable source
  – Primary application: Packaging
## BOARD DIFFERENT TYPES

<table>
<thead>
<tr>
<th>WLC</th>
<th>UNCOATED</th>
<th>SBS</th>
<th>FBB</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 to 100 % recycled fibre with Coating</td>
<td>70 to 100 % recycled fibre with out coating</td>
<td>100 % Bleached chemical pulp</td>
<td>Outer layers of Chemical pulp sandwiching Mech. Pulp</td>
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</table>

- **Medium density,** **Economy,** **Availability**
- **Personal care,** **Toiletries,** **Food,Garments,** **Health care**
- **Set up boxes,** **dividers,** **book binding,** **matches**
- **Cigarettes,** **pharma,** **Cultural**
- **Cigarette,** **soaps,** **Pharma**

- **Medium density**
- **High density,** **Print appeal,** **hygiene,** **taint and odour free**
- **Low density,** **rigidity,** **hygiene,** **Print appeal**
**BOARD DIFFERENT TYPES**

**CUK**
- Chemicaly bleached fibre with Kraft Back
- Low density, Economy, cheaper alternative to SBS
- Beverage carrier Board for bottles and cans

**LIQ. PKG. BOARDS**
- Virgin grade (SBS, FBB, CUK)
- Asceptic, Edge wick and stretch
- Milk, juice etc

**CUP STOCK**
- 100 % Bleached chemical pulp with Poly coatings
- High density, hygiene, taint and odour free
- Cups for soft drinks, milk shakes, Hot beverages

**CAST COATED**
- Mirror like coated surface
- High gloss
- Print appeal, smoothness
- Perfumes, premium brand wines and spirits, Labels
White Lined Chip Board

- Recycled Fibre - based grades
  - White Lined Chip Board
    - Multi layer boards consisting of 60 to 100 % of recycled fibre
    - Top layer produced either with high grade white preprint waste paper or bleached chemical pulp.
    - The middle layer and the back layer are made from waste paper
    - The basis weight ranges from 200 to 600 GSM
White Lined Chip Board

- Surface Brightness is 80 to 85 % ISO
- Coating grammages range from 0 to 25gsm.
- Extremely good smoothness of less than 2 Microns PPS possible
- Hunter Gloss more than 35 %
- Cost effective substrate for gravure and offset printing process
- Used extensively in developing world, in developed countries use confined to non food sectors
White Lined Chip Board

Uncoated recycled board
- made of 20% virgin fibre on top or 100% waste paper without any coating.
- Generally laminated with other boards/papers and basis weight of final boards will be over 1000 GSM
- Solid packaging boards for set up boxes and other packaging applications
- As packing dividers in corrugated boxes, luggage manufacturing, book binding etc.
Virgin fibre-based Board

Solid bleached board
- produced entirely of bleached chemical pulp.
- The number of solid homogeneous fibre layers varies from two to four
- Both long and short fibre are used
- surface is double coated and back is either uncoated or lightly coated.
- The surface brightness is 90 % ISO
- top surface roughness is less than 1.2 microns PPS
- Hunter Gloss of top surface more than 75 %
Virgin fibre-based Board

Solid bleached board
- Available in 200 to 600 GSM
- Suitable for all types of Printing Process
- Considered as premium grades for packaging and graphical purposes
- Suitable for packing aroma and flavor sensitive products
- In general SBS are superior when purity good appearance and runnability of the packaging material are required.
Virgin fibre-based Board

Folding box board (FBB)
- Folding box board consists of three layers
- The top layer is of bleached chemical pulp.
- The middle layer consist of mechanical pulps: stone ground wood pulp, pressurised ground wood, thermomechanical pulp or chemi thermo mechanical pulp. This layer gives stiffness and bulk.
- The back of FBB is either manilla or white in colour
Virgin fibre-based Board

Folding box board (FBB)

- The top is coated with two layer of coating and coat weight is in the range of 22 - 25 GSM
- A good substitute for SBS in applications where runnability and a virgin fibre base are required
- Visual properties slightly inferior to SBS
- Suitable for all printing process- infact the most converter friendly board
- The basis weight ranges from 200 to 450
- Ideal for Food packaging, cigarettes cosmetics, pharmaceuticals and graphical applications.
Coated unbleached kraftboard (CUK)

- made from unbleached sulphate pulp (245 - 520 GSM) with a coating of 22-25 g/sq..m
- The top layer under the coating may consist of bleached chemical pulp.
- Also some recycled fibre can be used to replace part of the unbleached sulphate pulp
Coated unbleached kraftboard (CUK)
- Has very strength properties
- Used as a lower cost alternative to SBS board
- Mainly used as a beverage carrier board for both glass bottles and cans and also in folding cartons.
- Generally suitable for all printing process.
Cast coated boards and papers

- The base board can be uncoated SBS, FBB or recycled boards
- The roughness is less than 1 microns PPS and hunter gloss is more than 90 %
- Suitable for premium packaging of cosmetics, liquor pharmaceuticals, greeting cards, labels and others
  - Generally available in 220 - 450 GSM
  - Cast coated papers in 85/90 gsm used extensively for labels with higher grammage papers popular in greeting cards
PAPER BOARDS - Different Types

Liquid packaging board

- Base board is either coated or uncoated SBS, CUK or FBB with CTMP in middle layers
- These boards are laminated with aluminium foil and special plastic barriers.
- Requires special properties like edge wick with lactic acid and Hydrogen peroxide and stretch.
- Mainly used for packing milk, juice and other liquids
- Generally available in the range of 170 - 340 GSM
PAPER BOARDS - Different Types

Cup stock board
- Base board is normally uncoated SBS
- These boards are laminated with PE for soft drinks and hot beverages
- Generally available in the range of 170 - 340 GSM