

Quadrant II - Transcript and Related Materials

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Name of the presenter: Ravina R. Jalmi

Notes:

– Ancillary Packaging –

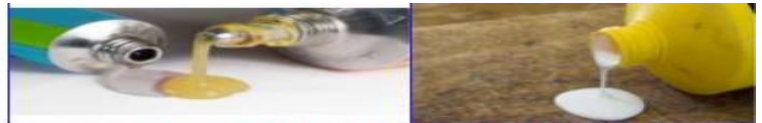
Introduction

- o In packaging, ancillaries cover a large group of products and play a vital role towards completeness of a package.
- o Quantum and volume-wise, though ancillary materials have a smaller visible percentage of the total packages used, nevertheless, their absence or inadequacy may impair the performance of a package—functionally, aesthetically and statutorily.
- o In the case of packages, which come directly in contact with the pharmaceutical product, the safety aspects that apply to the primary package also apply to the ancillary materials.

Adhesives

Adhesives are chemical compounds that are used to initiate the adhesion of two or more objects. There are multiple types of adhesives, depending on their application. Adhesives are used in industries and at homes on a daily basis and can be categorized into two main categories – for large-scale uses and for home uses. The former is used in packaging, construction, manufacture of electronics, assembly of vehicles, or heavy machineries, furniture manufacturing, and more. For home uses, adhesives are used for rejoining broken materials, to mend shoes, for art and craft purposes or to pack gifts.

Adhesives



- Adhesive bonding is the **process of uniting materials with the aid of an adhesive**, a substance capable of holding such materials together by surface attachment.
- Polymers are widely used as adhesives because of their **versatility**.
- The **primary function** of adhesives is to join parts together.
- Adhesives do this by transmitting stress from one member to another in a manner that distributes the stress much more uniformly than can be achieved with conventional mechanical fasteners.

Printing Inks

Printing inks come in various types, based on the printer and the substrate to be printed on. Standard inkjet printers have dye-based inks. Some printers also use pigment-based inks, especially in the industrial scenario, where crisp and clear print is needed. Dye-based inks have better colour reproduction but can get soaked in the paper, reducing clarity. Other printers, such as lithographic and flexographic printers use thicker inks that come in form of a paste.

Printing Inks



- Printing inks are coloured liquids or pastes, formulated to transfer and reproduce an image from a printing surface.
- They are used mainly to convey a message and provide protection; however, they also can give a decorative effect to the substrate to which they are applied.
- Printing inks are used on a wide range of papers, boards, plastic, glass and textiles surface in flat and, in some instances, preformed shapes.

PP Straps

PP Straps or polypropylene straps are used to tie down, bundle, reinforce or stabilize goods before they are transported. Strapping is usually done in warehouses and during the shipping process and is seldom known to the end user. PP straps require specialized hardware that allows the straps to bind the goods securely and stay fastened using a separate hook.

Strapping Materials

- Strapping is generally the last but a key step in the packaging operation.
- Strappings are normally used for reinforcing, baling, palletising, unitising, bundling and tying.
- It is very useful in brace shipments of goods during transit.



Types of Strapping Materials

- **Metallic**
 - Round Wires
 - Steel Straps (Bands)
- **Non – metallic**
 - Polyester
 - Nylon
 - Polyolefin



Caps & Closures

Caps and closures allow closing the open end of plastic jars and bottles. Caps and closures are used in household plastic containers, such as bathroom cleaners, floor cleaners, glass cleaners, household insecticides, detergent containers and so on, in healthcare products, such as medicine bottles, topical ointment tubes, spray bottles, in food product packaging (such as ketchup bottles), in beverage bottles and also in cosmetic product containers. Caps and closures provide make it easy to dispense the product, provides child safely and also improves the shelf life of the product.

Tapes

Tapes are a widely used packaging as well as a packaging customization material. Tapes come in different materials, colour, and size. Different tapes have different advantages. Plastic tapes are mostly used in the packaging industry, in gift wrapping, and also in arts and craft. The packaging industry also uses paper tapes, but they are used less than plastic tapes. Paper tapes are more used in painting applications, as masking tapes as well as in arts and craft.

Adhesive Tapes

- o An adhesive tape is composed of a **backing element** in a long strip upon which an adhesive is applied.
- o Its function is to **attach the carrier backing** to some secondary surface.
- o The attachment is made by activating the adhesive with solvent, heat or finger pressure.
- o Tapes are used for holding, bundling, sealing, protecting, reinforcing, colour identification and box closing.

Labels

Labels are used extensively in the packaging, shipping as well as the manufacturing industry. Labels make it easier to put product information right on the product itself. Manufacturers use labels to add the branding, serial and batch numbers, contents, safety information, precautions, and more details. Labels can be made from paper, plastics, metals, or a combination of these materials. Paper labels are the cheapest. It is much easier to print on paper labels. Self-adhesive labels are also easy to stick to the product. Plastic and metallic labels are more resistant to moisture and wear from regular use. Packaging and shipping industry extensively use labels to add addresses and packaging details on the shipment.

Cushioning Material

Cushioning material, also known as void fill, are soft materials used to protect fragile items during shipment. Besides protection, these materials also make the packaging aesthetically pleasing in certain cases. During shipping, packages are impacted in various ways. The products may get damaged from bumps, shocks and vibrations. Cushioning materials absorb the impact and reduce the chance of a damaged product. Common cushioning materials include bubble wraps, air packets, bubble wraps, moulded polystyrene, crinkle paper and packing peanuts. Different cushioning materials are used for different products based on weather resilience, resistance to shock and vibration, sensitivity to static electricity, environmental issues, the size and weight limitations, cleanliness of the product and more.
