



Key To a Successful Pharmaceutical Packaging Buyer / Supplier Relationship

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DEFINITION

- ◆ **An economical means of providing protection, presentation, identification, information and convenience for pharmaceuticals product from the moment of production until it is used or administered.**

HISTORY OF PACKAGING MATERIAL



◆ Unit Dose Packing.

- Unit dose packing was first started in 1927 for a Aspirin based product (ASPRO).

◆ Multi Dose Packing.

- Blister packaging was first introduced in American Hospitals.
- Visibility in Blister to recognize the product easily.



TYPE OF PACKAGING MATERIALS USED BY PHARMA INDUSTRY

- **Primary Packaging Material**
(Also known as Critical Packaging Component)
- **Secondary Packaging Material**
(Also known as Non - Critical Packaging Component)
- **Tertiary Packaging Material**
(Also known as Non - Critical Packaging Component)



BASE MATERIAL / PACKAGING MATERIAL USED IN PHARMA INDUSTRY FOR PACKAGING

BASE MATERIAL	PACKAGING MATERIAL
Paper	Labels, Leaflets.
Board	Catrons, Display Units.
Glass	Ampoules, Vials, Syringes, Bottles etc.
Metals (Aluminium, Tin Plate)	Collapsible Tubes, Foils etc.
Plastics (E.g. Polyethylene, Polypropylene)	Closures, Tubes, PET Bottles etc.
Metal / Plastic	Flip Off Aluminium Seals



TYPE OF PACKAGING MATERIALS USED BY PHARMA INDUSTRY



Alu / Alu Blister



Strip Pack



Blister Pack



TYPE OF PACKAGING MATERIALS USED BY PHARMA INDUSTRY



Ceramic Printed Glass Ampoules



Amber Glass Vial



Glass Ampoule



One Point Cut Glass Ampoules



Color Break Glass Ampoules

TYPE OF PACKAGING MATERIALS USED BY PHARMA INDUSTRY



Color Labels



Tamper Evident Label



Product Label



Product Literature / Leaf Let



Bar Code Label



TYPE OF PACKAGING MATERIALS USED BY PHARMA INDUSTRY



Corrugated Box



Plain Aluminium Foil



IMPORTANCE OF PACKAGING MATERIAL IN PHARMA INDUSTRY

Drugs need more care in their packaging than do most other product, because any failure in their packing could result in changes in the drug that lead either to a failure to cure, to illness, to injury or even cause death of patient.



IMPORTANCE OF PACKAGING MATERIAL IN PHARMA INDUSTRY

- ◆ **Protection of Product.**
- ◆ **Protection from Physical Damage**
- ◆ **Protection from Chemical Deterioration**
- ◆ **Protection from Mechanical and Climatic Hazards**
- ◆ **Protection from Microorganisms.**
- ◆ **Compatibility of Product and Packaging Material.**
- ◆ **Child Resistant**
- ◆ **Temper Evident.**

EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY



- ◆ **Packaging Quality must be of a good design relevant to the needs of:**
 - **Product**
 - **Manufacturing and Distribution System (of both Customer & Supplier)**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

Stability Parameters:

- 1. Protect the Product from Moisture and Gas.**
- 2. Light and Temperature Protection.**
- 3. Microbiological Integrity**
- 4. pH Stability.**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

Compatibility with Packaging Material:

- ◆ **Migration from the Medicine to the Packaging Components of :**
 - **Preservatives**
 - **Volatile actives**
- ◆ **Leaching from the packaging to the Medicine of :**
 - **Stabilizers**
 - **Plasticizers**
 - **Anti-oxidant**
 - **Additives etc.**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

➤ **Machine Suitability:**

- **Line Speed**
- **Tolerances**
- **Reliability**

➤ **Legislation:**

- **Fill Weight**
- **Labeling**
- **Storage**

➤ **Marketing Aspects:**

- **Market Policy**
- **Product Code**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

COMPLIANCE WITH INTERNATIONAL STANDARDS

S. No.	BRITISH STANDARD NUMBER	TITLE
1	BS 795 : 1983	Ampoules
2	BS 2006 : 1984	Aluminium Collapsible Tubes
3	BS 5597 : 1991	Specifications For Non – Refillable Plastic Aerosol Containers
4	BS 6652 : 1985	Specifications For Packaging Resistant To Opening By Children
5	EN 293622 : 1993	Rubber Closures For Injectable Products



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

QUALITY SYSTEMS AND GMP

- ◆ **Strict Safety Norms.**
- ◆ **Quality Certifications like ISO etc.**
- ◆ **Audit from Pharma Industry for GMP conformance.**
- ◆ **Pest Control Programmes.**
- ◆ **Independent Quality Department from Manufacturing Department.**
- ◆ **Written SOP's and Policies to implement Quality System.**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

- ◆ **Controlled Storage Condition.**
- ◆ **Separate Storage Area for RM / Finished Product.**
- ◆ **Good House Keeping / Ware Housing Practices.**
- ◆ **Written Procedure for Line Clearance.**
- ◆ **Fully Equipped Packaging Development Laboratory.**
- ◆ **HEPA filters in the Primary Packaging Material Manufacturing Facility.**
- ◆ **Availability of Air Curtains & Insecticutors.**



EXPECTATIONS OF PHARMA INDUSTRY FROM PACKAGING INDUSTRY

- ◆ **An ideal Packaging Material Industry, as per GMP and Regulatory requirements should be equipped with following QC equipments:**
 - **GSM Measuring Weighing Scale**
 - **Gauge Meter**
 - **Viscosity Cup**
 - **Bond Strength Measuring Unit**
 - **Bursting Strength Measuring Unit**
 - **Vacuum Chamber**
 - **Dart Impact Testing Machine**
 - **Opacity Meter**
 - **Pin Hole Checking Table**
 - **Pantone Shade Card**
 - **Chemical Analysis Unit**
 - **VMCH coating machine etc.**



HOW THE PHARMA INDUSTRY CAN HELP PACKAGING INDUSTRY?

- ◆ **By Providing Adequate Training.**
- ◆ **By Regular / Frequent Audits.**
- ◆ **By Sharing the Technology**



HOW THE RELATION BEWTEEWN PHARMA AND PACKAGING INDUSTRY CAN HELP EACH OTHER?

By Providing Product Security:

**Packaging can help combat
Product counterfeiting through
authentication and design.**



By Providing Specific Packaging Material

**By Providing Specific Packaging
Material which includes prompting and
Technology to help patients remember to take
their medications.**

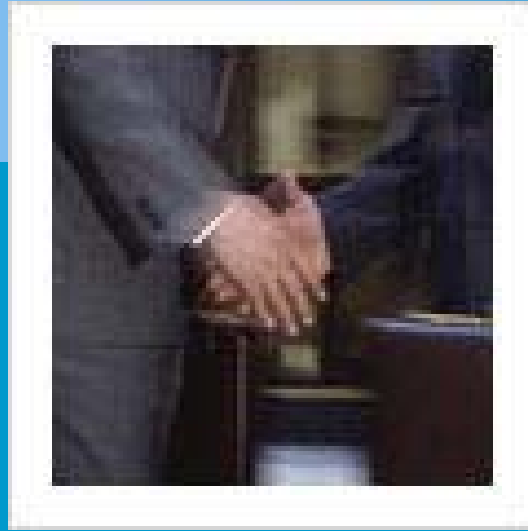




HOW THE RELATION BEWTEEWN PHARMA AND PACKAGING INDUSTRY CAN HELP EACH OTHER?

- ◆ **By Building Brands**
To partner with customers to develop ideal, effective healthcare solutions to fit their needs and goals.
- ◆ **By Ensuring Quality**
Plants should practice cGMP and Process Control Methods, and undergo audits for continuous process improvements.





Let's Work Together For A Better Tomorrow

Thanks