REPORT ON INDUSTRIAL VISIT
At
INDIAN INSTITUTE OF PACKAGING (IIP), MUMBAI.

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Date: 16th MAY, 2025

UKA TARSADIA UNIVERSITY

Maliba Pharmacy College

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Date of visit	16thMAY, 2025
Place of visit	Indian Institute of Packaging (IIP), Mumbai
Coordinator from college	Dr.Pranav Shah
Approved by	Dr. Shailesh Shah, Principal
Participating student	17 students from Second SemM.Pharm (Pharmaceutics)
Coordinator from industry	Dr. R. K. Mishra
Industry-Institute Interaction and Educational Visit Committee	Dr. Pintu Prajapati.

As a part of our academic curriculum, students of M. Pharm (Pharmaceutics) from Maliba Pharmacy College had the valuable opportunity to visit the Indian Institute of Packaging (IIP) in Mumbai. This visit was organized to provide practical exposure to the pharmaceutical industry's packaging segment.

IIP is a national body functioning under the Ministry of Commerce & Industry, Government of India. It plays a key role in developing packaging standards and education in India. With sub-centres in cities like Delhi, Kolkata, Hyderabad, Chennai, and Ahmedabad, IIP offers various diploma, postgraduate, and certificate courses related to packaging sciences. It also provides research, testing, and certification services to different industries.

We were warmly welcomed by the officials of IIP. A highly informative presentation was delivered by Mr. Baburao Gudria, who explained the importance of packaging in pharmaceuticals — including primary, secondary, and tertiary packaging. He highlighted the role of packaging in product protection, stability, compliance, branding, and patient safety. We also learned about emerging trends like smart and eco-friendly packaging and their importance in meeting regulatory standards.

Laboratory Tour and Equipment Demonstration:

During our tour of the laboratory facilities, we explored over 600 types of equipment used for testing packaging in pharmaceuticals, food, and other industries. Some notable instruments included:

- Oxygen Permeability Tester – Measures oxygen transmission rate, vital for oxygen-sensitive drugs.
- Moisture Permeability Tester – Measures water vapour transmission, important formoisture-sensitive products.
- ICP-OES – Detects trace elements in packaging materials.
- GC-MS – Identifies volatile impurities.
- HPLC – Measures extractables and leachables in packaging.

We also observed:

- Bursting Strength Tester – Evaluates how well paperboards and corrugated boxes withstand pressure.
- Dart Impact Tester – Tests impact resistance of plastic films.
- Gurley Tester – Measures air permeability of packaging.
- Dual Thickness Gauge – Checks thickness consistency in films and foils.
- Digital Crush Tester – Assesses compression strength of cartons

Quality Control and Analytical Testing

The visit also introduced us to other sophisticated testing equipment:

- Spectrophotometers – Used for verifying colour accuracy in printed packaging.
- Micro Hole Detection Equipment – Detects tiny holes in plastic and metal drums using vacuum or helium leak detection.
- DSC (Differential Scanning Calorimetry) – Analyses melting point, crystallinity, and glass transition temperature of polymers.
- FTIR (Fourier Transform Infrared Spectroscopy) – Identifies functional groups and chemical composition.
- XRD (X-ray Diffraction) – Measures crystalline structure and environmental transformation of materials

Packaging Demonstrations and Stability Tests

We also witnessed demonstrations of different types of packaging materials like folding cartons, HDPE/PET bottles, and 200L drums. These were tested using:

- Drop tests
- Vibration tests
- Compression tests
- Accelerated stability studies

These procedures ensure that packaging can withstand storage, handling, and transportation without compromising product quality.

At the end all the students and faculties gathered again in the hall. **Mr. Mahendra Savaliya**, the HR inspired the students by emphasizing the importance of adopting a multidisciplinary approach to become successful leaders in the pharmaceutical industry in the future. **Chairman** of IIP is **Dr. Subodh Gupta,** were felicitated by **Ms. Priyanshi Patel**. The fruitful visit of Indian Institute of Packaging was ended cheerfully by clicking a group photograph at the entrance of the industry at 1.00 pm.

This educational visit to IIP was incredibly informative and provided in-depth knowledge about the science, technology, and regulations of pharmaceutical packaging. We extend our heartfelt gratitude to our faculty coordinators, the Head of Department, **Dr. Pranav Shah Sir** and the coordination of Maliba Pharmacy College for arranging this valuable experience. The exposure and insights gained from this visit will surely enhance our academic understanding and professional competence.

Group photo of students at entrance of Indian Institute of Packaging.