Tablet Coating - Process Demonstration

Experiment 8 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To document the supplied tablet-coating demonstration and its quality checks.

Principle

A coating process deposits a controlled layer on a tablet core. Coating type and composition determine its intended appearance, protection or release function.

Requirements

- Instructor-provided labelled diagrams, traces or data for this activity.
- Calculator, graph paper or spreadsheet, and the activity record.

Procedure

1. Identify the coating

Record the assigned film, sugar or other coating system and its intended function.

2. Trace the equipment

Label the pan or fluid-bed system, application system, air handling and process monitoring shown.

3. Read process data

Record supplied spray/bed/air conditions as observations, not as an invented coating recipe.

4. Inspect the product

Compare coating uniformity, defects and the required product performance tests.

5. Conclude

Relate any observed defect to a possible process/material issue for supervisor investigation.

Observations and Record

Record item	Entry
Activity / material identifier	_____
Measurement or visible feature	_____
Comparison / calculated outcome	_____
Interpretation and limitation	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Coating mass gain (%) = (coated tablet mass − core mass) / core mass × 100.
- Example: 500 mg core to 525 mg coated unit gives 5% gain; this is not a universal coating target.

Result

The recorded finding is ____; the supporting observation or calculation is ____. The main limitation is ____.

Precautions

- Use the supplied teaching material; distinguish a measured observation from an assumed value.
- Keep units, axes, labels and measurement conditions consistent.
- Record limitations and seek instructor review before applying a conclusion to a live case.

Viva Questions and Answers

1. Does every film coat alter drug release?

No. The coating composition and purpose determine its function.

2. Why test performance after coating?

A coating can affect disintegration, dissolution and other product attributes.

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