

# SOP: Package Sealing and Integrity Inspection Procedures

This SOP details **package sealing and integrity inspection procedures** to ensure that all packaging meets quality and safety standards. It covers the methods for verifying seal strength, detecting packaging defects, and maintaining product protection during storage and transportation. The goal is to prevent contamination, spoilage, and product damage by implementing consistent inspection protocols and corrective actions when necessary.

## 1. Purpose

To outline standardized procedures for inspecting package seals and verifying packaging integrity to ensure the quality and safety of the product.

## 2. Scope

This procedure applies to all packaging lines and staff responsible for package sealing and inspection at [Company Name].

## 3. Responsibilities

- **Quality Control (QC) Personnel:** Perform inspections and document findings.
- **Production Staff:** Ensure packaging line compliance and report any issues.
- **Supervisors/Managers:** Review inspection records and implement corrective actions.

## 4. Materials and Equipment

- Sealed package samples
- Seal strength tester
- Visual inspection tools (magnifying glass, lighting, camera if applicable)
- Integrity testing devices (dye penetration kits, vacuum chamber, etc.)
- Inspection log sheets or electronic records
- Personal protective equipment (PPE) as required

## 5. Procedure

1. **Sampling**
  - Collect samples from the start, middle, and end of each production batch or as per defined frequency.
2. **Visual Inspection**
  - Examine each sample for visible defects, such as incomplete seals, wrinkles, trapped product, or contamination.
  - Document any abnormalities on the inspection log.
3. **Seal Strength Testing**
  - Test the seal using a calibrated seal strength tester.
  - Record the measured seal strength and compare it to defined specifications.
4. **Integrity Testing**
  - Conduct integrity tests (e.g., dye penetration, vacuum leak) following standard protocols.
  - Check for leaks, weak spots, or seal failure.
5. **Documentation**
  - Record all inspection results, including lot number, date, findings, and inspector initials.
6. **Corrective Actions**
  - If packaging does not meet specifications, segregate affected lots and notify production and QC management.
  - Document all corrective actions taken and investigate the root cause.

## 6. Acceptance Criteria

- Seals are uniform, continuous, and free from defects such as gaps, burn marks, or contamination.
- Seal strength meets or exceeds minimum specifications.
- No leakage or integrity failure detected during testing.

## 7. Records

- Seal and integrity inspection log sheets
- Corrective action reports
- Training records for personnel involved in inspection

## 8. Training

All relevant personnel shall be trained on these procedures and retrained annually or as needed after any process change.

## 9. References

- Product packaging specifications
- Relevant regulatory guidelines (e.g., FDA, ISO, GMP)
- Equipment operation manuals
- Company Quality Manual

## 10. Revision History

Version	Date	Description	Approved By
1.0	[Date]	Initial release	[Name]