



Labeling faults

1. Definition: Machine and criteria

One important parameter of a labeling machine is the number of labeling faults. The following refers to machines for hot glue.

The used bottles and labels have to fulfil good manufacturing standards and have to be specified for using on the machine.

For all actions the relevant safety instructions must be strictly adhered to.

Further related documents

free

2. Inspection

2.1 Scope

Detection of labeling faults after the labeling process.

2.2 Apparatus

Free

2.3 Procedure

For inspection, random samples have to be taken.

Correct label positioning can be checked visually.

Labeling faults are:

- **Missing labels**
- **Deformed labels**
- **Crooked labels**

Defined capacity performance data can only be valid under optimum conditions, i.e.

- New, exactly adjusted format and guiding parts
- Glue and labels correspond to guarantees
- Dry bottles are in accordance with permissible tolerances
- The bottle finish must be centric to the container diameter, whereby a tolerance is acceptable
- The labeling area has to be the cylindrical area of the container
- The glue used has to guarantee good adhesion

The containers have to possess sufficient stability against pressure from the side in the areas of side walls and bottom. The axial load capacity of the containers to be labeled has to be pre-defined, especially with containers without inner pressure (still and pressureless liquids) and in the event of labeling empty containers.

Labeling quality affected by tears cannot be considered.

In this regard, it is required that bottles and labels are within the tolerance range defined by the manufacturer (cf. technical data of the machine)

Incorrect means that the label is:

Missing (A), deformed (B) or crooked (C).

- **Missing labels (A):**
Each bottle where a label is missing counts as a single fault.
- **Deformed labels (B):**
Labels applied off center. Deformed labels are usually crooked.
- **Crooked labels (C):**
The deviation of the label at the overlapping adhesive point is greater than the permissible tolerance.

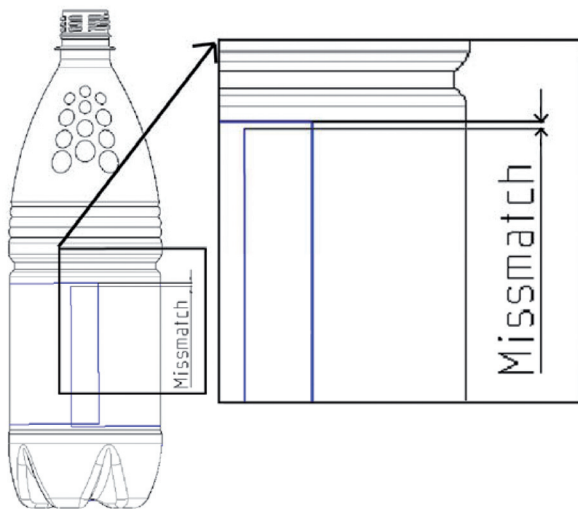


Fig. 01: Overlapping mismatch

A package with multiple faults is counted as one fault.
Secondary faults are counted only once.



3. Sampling

To check labeling quality, samples of labeled packages are needed. Samples have to be taken after 15 minutes of production in standard operation and at nominal capacity.

Quantity of sample bottles:

Machine capacity up to	15,000 bottles per hour	→	100 bottles
Machine capacity up to	40,000 bottles per hour	→	500 bottles
Machine capacity more than	40,000 bottles per hour	→	1000 bottles

3.1 Calculation

Inspect the bottles visually. If there are any doubts, measure the position of the label with a suitable measuring unit (e.g. sliding caliper).

Count all bottles with labels which do not meet specifications.

3.2 Results and data sheets

Count all bottles with labels which do not meet specifications. Cf. Pt. 4 for definitions of labeling faults.

4. Evaluation and Documentation

4.1 Evaluation

Labeling accuracy is correct when the number of labeling faults is not higher than warranted in the contract.

Allowed faults: _____

Detected faults: _____

4.2 Documentation

Allowed faults _____ detected faults _____ Labeling is o.k.

Allowed faults _____ detected faults _____ Labeling is not o.k.

Name and signature of inspector: _____