



# OIML R 87

## Annex B

### Tare procedures (**Informative**)



# OIML R87

## Tare procedures

These procedures permit the use of either used or unused packing material to determine the actual quantity of product in the prepackage as follows:

$$\text{Actual quantity} = \text{Actual Gross Mass} - \text{Average Tare Mass}$$
$$(Q_i = \text{AGM} - \text{ATM})$$

## Tare procedures

### Type of tare permitted:

- Unused dry tare
  - mass of unused packing material of one prepackage
- Used dry tare
  - packing material that has been used as part of a prepackage and that has been separated from the product and completely cleaned to approximate the state of the packing material when new

## Tare procedures

Tare weight includes the weight of all of the packing material:

- Packing material
  - Everything of the prepackage that is intended to be left over after use of the product, except for items naturally in the product (R 79 2.6)
  - Remember to include any stickers, labels, sleeves, boxes etc



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## Tare Procedures

Randomly a sample of 25 packing materials, either from:

1. The inspection lot (**used dry tare**) or
2. New packing materials at the point-of-pack (**unused dry tare**)

## Tare Procedures

Notes on used dry tare:

1. Determine the gross mass of the prepackage before opening the packing material; as this may effect the integrity of the sample, and
2. Clean the packing material by using normal household procedures used by consumers of the product; the packing material should not be dried in an oven

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**IT SAID PUT IT IN THE OVEN ...**



**... AT 120 DEGREES**

## Tare procedures

Determine:

- The mass of 10 of the selected packing materials in the sample,
- The Average Tare Mass (ATM) of the 10 tare samples, and then
- Apply the ATM to the three scenarios (as per B.3.4.1 to B.3.4.3)

## Tare procedures

Scenario	If	Then
1	If the ATM is equal to or less than 10 % of the nominal quantity of the product	Use the ATM to determine the actual quantity of product in the prepackages according to the applicable requirements in A.3
2	If the ATM is greater than 10 % of the nominal quantity and $s$ is equal to or less than $0.25 \times T$	Use the additional 15 samples of packing materials selected in B.3.1 and weigh as in B.3.3.
3	If the ATM is greater than 10 % of the nominal quantity and $s$ is greater than $0.25 \times T$ of the product	The ATM cannot be used and it is necessary to determine and to consider every individual tare mass (destructive testing)

## Tare procedures

### Scenario 1:

- The ATM of the 10 tare samples is less than 10 % of the nominal quantity, then
- Use the ATM to determine the actual quantity

$$Q_i = AGM - ATM$$

\*Apply A.3 if necessary (density to be covered later)

## Tare procedures

### Scenario 2:

- The ATM of the 10 tare samples is greater than 10 % of the nominal quantity, and the standard deviation ( $s$ ) is equal to or less than  $0.25 \times T$ , then
- Weigh the additional 15 samples of packing material
- Determine the ATM of the 25 samples
- Use the ATM to determine the actual quantity

## Tare procedures

### Scenario 3:

- The ATM of the 10 tare samples is greater than 10 % of the nominal quantity, and the standard deviation ( $s$ ) is greater than  $0.25 \times T$ , then
- The ATM cannot be used to determine the actual quantity
- Destructive testing may be your only option



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## Tare procedures

Complete the practical exercises