INTERNATIONAL

RECOMMENDATION

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Capacity serving measures

Mesures de capacité de service

OIML R 29 Edition 1979 (E)

ORGANISATION INTERNATIONALE
DE MÉTROLOGIE LÉGALE

INTERNATIONAL ORGANIZATION
OF LEGAL METROLOGY

Foreword

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CAPACITY SERVING MEASURES

1 Scope

This Recommendation applies to capacity measures made of glass (or other authorised materials) known as "serving measures" which are usually filled as required and which are used for the retail sale of drinks, such as :

milk, beer, wine, mineral waters, various table waters, spirits, etc...

sold in cafes, restaurants, hotels, canteens, etc...

for consumption on the premises.

Serving measures are divided into two categories :

a) transfer measures, such as carafes, flasks, jugs, pitchers, bottles(*), which are used solely for decanting specific volumes of beverages,

b) drinking measures, such as glasses, cups, tankards, etc... which are used for the consumption of specific volumes of beverages.

2 Definition of capacity

The capacity of a serving measure is defined by its internal volume limited by a filling mark.

This capacity is determined by measuring the volume of water at 20 °C which is poured from it after it has been filled up to this mark, (the measure having been placed on a horizontal surface).

The reference temperature may be 27 °C for countries with a tropical climate.

3 Permitted nominal capacities

Serving measures must have one of the following nominal capacities :

0.02 - 0.025 - 0.03 - 0.04 - 0.05 - 0.1 - 0.2 - 0.25 - 0.3 - 0.4 - 0.5 - 1 - 1.5 - 2 - 3 - 4 or 5 dm^3

4 Material and shape

4.1. The measures must be made of glass or any other rigid material, approved by the competent National Service.

4.2. Drinking measures made of synthetic material or paper which are intended to be used once only are also permitted.

4.3. Transfer measures must be so designed that a variation in the contents equal to the maximum permissible error causes a change in the level of at least 2 mm at the level of the filling mark.

(*) Only bottles having a filling mark and used as serving measures are included in this Recommendation.

In particular, bottles which have a clear and indelible indication of their capacity but no filling mark and which contain a product of certified origin are excluded.

5 Filling mark

5.1. The filling mark on the measure must be a horizontal line with a minimum length of 15 mm. It must be a complete circle on drinking measures with a capacity of less than 0.1 dm^3.

5.2. It must be clearly visible and indelible under normal conditions of use.

5.3. The internal dimensions must be such that :

5.3.1. on transfer measures, the filling mark is at least 20 mm from the brim ;

if a stopper is used, the distance between the lower end of the stopper and the filling mark is at least 10 mm,

5.3.2. on glasses with a capacity of less than 0.1 dm^3, the mark is at least 5 mm from the brim,

5.3.3. on drinking measures with a capacity of more than 0.05 dm^3, the filling mark is at least 10 mm from the brim,

5.3.4. on drinking measures used for the consumption of beer and frothy drinks, the filling mark is at least 20 mm from the brim.

5.4. Drinking measures with a capacity of between 0.04 and 0.1 dm^3 may bear two filling marks indicating the capacity and the half-capacity.

6 Maximum permissible errors

6.1. The maximum permissible error for transfer measures is 3 % of the nominal capacity.

6.2. The maximum permissible errons for drinking measures are :

5 % of the nominal capacity, for nominal capacities of less than 0.1 dm^3,

3 % of the nominal capacity, for nominal capacity of 0.1 dm^3 or more.

In addition, for measures bearing a mark showing the half-capacity, the maximum permissible error is 5 % of this half-capacity.

6.3. The maximum permissible errors in service are equal to those on initial verification.

7 Verification

7.1. Serving measures are subject to initial verification. They may be either verified or marked.

7.2. Verification comprises testing and stamping by a body of the National Service of Legal Metrology.

Stamping is carried out by applying the official mark and, where appropriate, by affixing the filling mark, the indication of the corresponding capacity and the year.

7.3. Marking is carried out by a non-official body.

It consists of affixing a filling mark, an indication of the corresponding capacity and a recognised manufacturer's mark.

7.4. The person who carries out the marking defined in paragraph 7.3. is considered to be the manufacturer.

7.5. Serving measures are not subject to subsequent verification.

8 Inscriptions

8.1. All inscriptions provided for in paragraph 7 must be clearly visible and indelible under normal conditions of use.

8.2. The indications of capacity must include the symbol for the unit of measurement "dm^3, cm^3, l, dl, cl, ml", and appear immediately above or below the filling mark.

8.3. Measures with an additional mark showing half-capacity must also bear an indication of the value of this half-capacity immediately above or below this mark.

9 Metrological controls

9.1. The Verification Service of the State checks that serving measures comply with the requirements in force, and in particular that the filling mark on measures marked in accordance with paragraph 7.3. ensures the prescribed accuracy. This check can be carried out by statistical sampling.

9.2. It is not allowed to take systematic advantage of the maximum permissible errors.

ANNEX

Any method which ensures indelible marking may be used for applying the filling mark, the indication of the capacity, the year of manufacture and the stamp of the Metrology Service or the glas works;

for example, by means of sand blast stencils, by chemical etching, or engraving with a graving tool or grinding wheel.

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