SLOVENSKI STANDARD
SIST EN 13310:2015

01-oktober-2015

Nadomešča:
SIST EN 13310:2003

Kuhinjska korita - Funkcionalne zahteve in preskusne metode

Kitchen sinks - Functional requirements and test methods

Küchenspülen - Funktionsanforderungen und Prüfverfahren

Eviers de cuisine - Prescriptions fonctionnelles et méthodes d'essai

Ta slovenski standard je istoveten z: EN 13310:2015

ICS:

97.040.10	Kuhinjsko pohištvo	Kitchen furniture

SIST EN 13310:2015 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13310

July 2015

ICS 97.040.10

Supersedes EN 13310:2003

English Version

Kitchen sinks - Functional requirements and test methods

Eviers de cuisine - Prescriptions fonctionnelles et méthodes d'essai

Küchenspülen - Funktionsanforderungen und Prüfverfahren

This European Standard was approved by CEN on 5 June 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 13310:2015 E

Contents

Page

European foreword

This document (EN 13310:2015) has been prepared by Technical Committee CEN/TC 163 “Sanitary appliances”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2016 and conflicting national standards shall be withdrawn at the latest by April 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13310:2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the EU Construction Products Regulation.

For relationship with EU Construction Products Regulation, see informative Annex ZA, which is an integral part of this document.

Since the latest version of EN 13310, the most significant technical changes are the following:

a) introduction of the term “product type”;

b) introduction of the clause “Dangerous substances”;

c) modification in the test materials and apparatus for the testing of the resistance to abrasion;

d) modification of marking of products;

e) replacement of the clause “Evaluation of conformity” by the clause “Assessment and verification of constancy of performance – AVCP” and replacement of Annex ZA by a new one in accordance with provisions of Regulation 305/2011;

f) modifications in the Normative References and the Bibliography.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the functional requirements of and test methods for kitchen sinks for domestic purposes, which ensure that the product, when installed in accordance with the manufacturers' instructions, gives satisfactory performance.

NOTE 1 For the purposes of this standard, the term "domestic purposes" includes use in hotels, accommodation for students, hospitals and similar buildings.

This document does not specify aesthetic requirements and the overall dimensions of kitchen sinks.

It does not apply to industrial kitchen sinks.

NOTE 2 All drawings are examples only; other forms are permissible.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 695, *Kitchen sinks — Connecting dimensions*

EN ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method (ISO 6506-1)*

ISO 4211-3, *Furniture — Tests for surface finishes — Part 3: Assessment of resistance to dry heat*

ISO 9352, *Plastics — Determination of resistance to wear by abrasive wheels*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
kitchen sink
bowl or group of bowls with (a) waste hole(s) and, if applicable, tap hole(s) and overflow(s), with or without draining areas, standing alone, integrated with, or assembled with a worktop or assembled into a purpose-built kitchen, intended for the preparation of foodstuffs, the washing of dishes and the discharge of domestic waste water

3.1.1
wall-hung sink
sink which is fixed directly to the wall without a base unit

Note 1 to entry: See Figure 1:

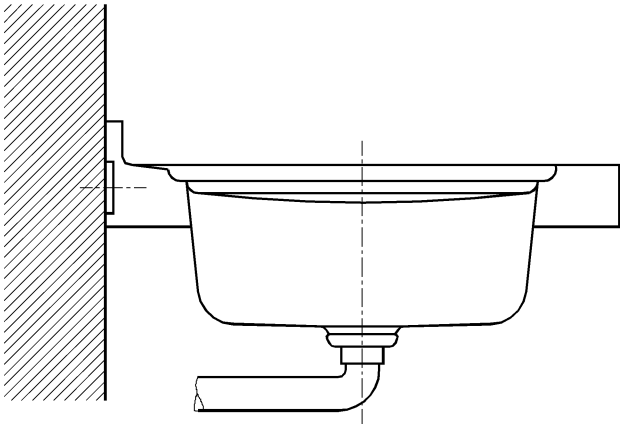

Figure 1 — Wall-hung sink

3.1.2
sit-on sink
sink which is mounted on top of a suitable base unit

Note 1 to entry: See Figure 2:

Figure 2 — Sit-on sink

3.1.3
inset sink
sink which is set into a kitchen work top from above, with the rim resting on the work top

Note 1 to entry: See Figure 3:

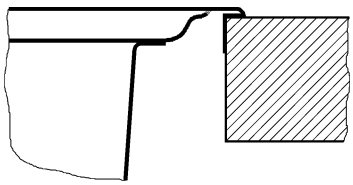

Figure 3 — Inset sink

3.1.4
flush-sit sink
sink which is set into a kitchen work top with the rim flush with, or within the thickness of the work top

Note 1 to entry: See Figure 4:

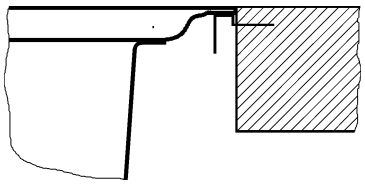

Figure 4 — flush-sit sink

3.1.5
under-mounted sink
sink which is set into a kitchen work top from below, butting up against the work top

Note 1 to entry: See Figure 5:

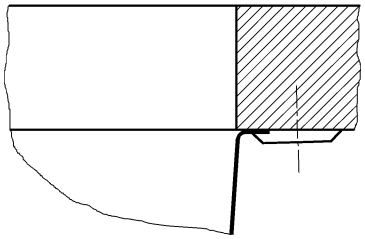

Figure 5 — Under-mounted sink

3.2
multi-layer kitchen sink
kitchen sink consisting of two or more layers

3.3
overflow
device which prevents water from spilling over the external rim of the kitchen sink or work top

3.4
outside dimensions
overall dimensions *L*, *B* and *H* of the kitchen sink

Note 1 to entry: See Figure 6:

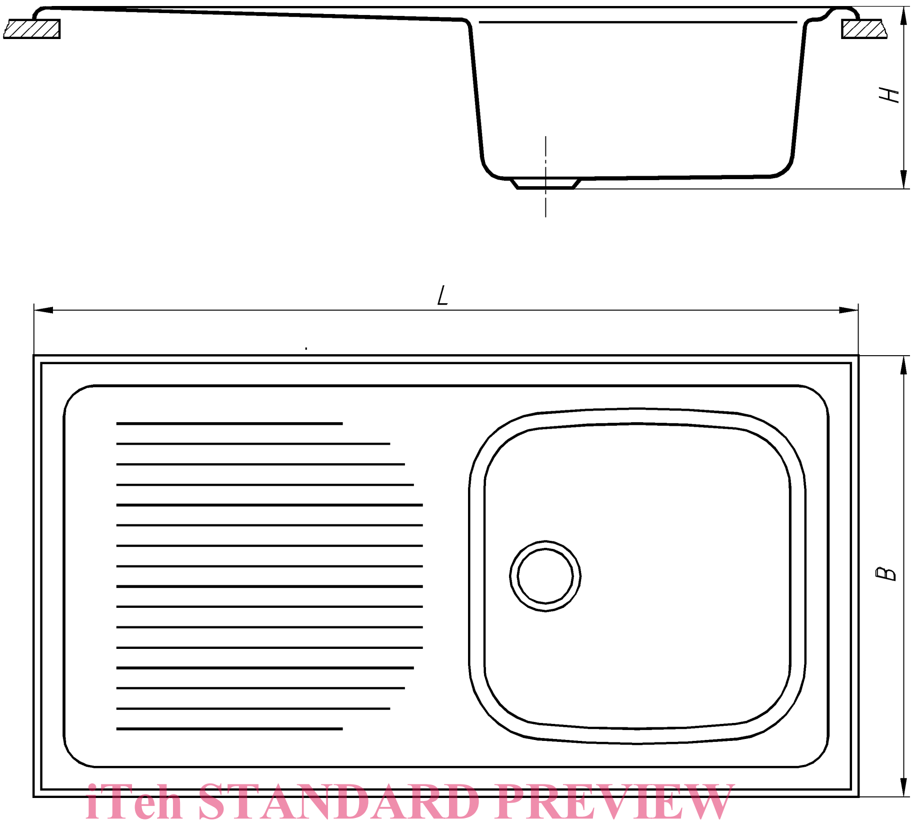

Figure 6 — Outside dimensions

3.5
product type
construction product with a set of representative performance levels or classes in relation to its Essential Characteristics, produced using a given combination of raw materials or other elements in a specific production process

4 Requirements

4.1 General

The manufacturer shall supply instructions for installation, use and care.

Annex A gives advice on the care and use of kitchen sinks which the manufacturer can include in his instructions for use and care.

Conformity with applicable European Directives shall be declared by the manufacturer in his instructions for use and care on materials intended to come into contact with foodstuffs (see Bibliography).

4.2 Connecting dimensions

The connecting dimensions shall meet the requirements specified in EN 695.

4.3 Draining of water

When tested in accordance with 5.2 all surfaces of the kitchen sink shall be inclined towards the bowl(s) and/or outlet(s) to ensure the drainage of water.

The requirement shall apply only to the bowl and the draining area (if applicable). The requirement shall not apply to tap platforms.

4.4 Resistance to dry heat

The test is intended to determine the suitability of kitchen sink surfaces where contact with moderately hot cooking pots is to be expected.

When tested in accordance with 5.3, or alternatively at a temperature of 180 °C in accordance with ISO 4211-3, the kitchen sink shall not show surface changes which influence its usage, e.g. cracks, crazing, through cracks, blistering.

Experience has shown that kitchen sinks made of glazed ceramics and stainless steel comply with this requirement.

4.5 Resistance to temperature changes

When tested in accordance with 5.4, the kitchen sink shall not show surface changes which influence its intended usage, e.g. cracks, de-lamination.

Experience has shown that kitchen sinks made of glazed ceramics and stainless steel comply with this requirement.

4.6 Resistance against chemicals and staining agents

Kitchen sinks, when used as intended, shall be resistant to household chemicals, foodstuffs and cleansing agents.

When tested in accordance with 5.5, the kitchen sinks shall not show any permanent surface deterioration, such as stains or deterioration which are not removable with water or abrasive agents.

4.7 Surface stability

4.7.1 Resistance to scratching

This requirement is applicable only to multi-layer kitchen sinks to ensure the stability of the top layer.

When tested in accordance with 5.6, any scratch shall not exceed 0,1 mm and/or the total depth of the top layer whichever is the least.

Experience has shown that kitchen sinks made of glazed ceramics and stainless steel comply with this requirement.

4.7.2 Resistance to abrasion

This requirement is applicable only to multi-layer kitchen sinks to ensure the stability of the top layer.

When tested in accordance with 5.7, the top layer of the test specimen shall not be abraded through.

Experience has shown that kitchen sinks made of glazed ceramics and stainless steel comply with this requirement.

4.8 Load stability

When tested in accordance with 5.8, the wall-hung sink shall not crack, fall down or show permanent distortion.

4.9 Flow rate of the overflow

Every kitchen sink shall be protected against overflowing.

When tested in accordance with 5.9, the flow rate of the overflow shall not be less than 0,20 l/s.

NOTE In kitchen sinks with two or more bowls, it is possible to have only one overflow if the overflow from one bowl is interconnected to the other. A non-closeable outlet can also be used as an overflow.

4.10 Durability

Kitchen sinks conforming to the requirements of 4.3 to 4.8 are deemed to be durable.

5 Test methods

5.1 General

The tests shall be performed in the following order:

5.2 - 5.9 - 5.8 - 5.4 - 5.3

The testing in accordance with 5.5, 5.6 and 5.7 can be conducted in any order but shall be conducted on new material for each test category.

If the kitchen sink is designed with only one bowl, then for the test conducted in accordance with 5.3 the specimens shall be cut from a second kitchen sink.

All tests shall be carried out at a room temperature of (23 ± 5) °C, except when stated differently.

5.2 Draining of water

— Install the kitchen sink horizontally in accordance with the manufacturers' installation instructions. The kitchen sink shall be cleaned with cleansing agents recommended by the manufacturer of the kitchen sink and afterwards shall be rubbed dry.

— Use tap water coloured to contrast with the colour of the kitchen sink.

— Pour not less than 1 l of this water along the highest part of the draining area, if present, and bowl(s).

— Determine whether the water has drained to waste outlet hole(s). Water remaining due to surface tension is permitted.

5.3 Resistance to dry heat

5.3.1 Test apparatus and chemicals

a) Rigid frame-work or test-rack of such a construction that a kitchen sink can be mounted horizontally, in such a way that all the outer rim is supported. The kitchen sink shall not be fastened or fixed to the frame-work or test-rack;

b) thermometer, capable of measuring temperatures between 0 °C and 250 °C to an accuracy of ± 1 °C;

c) cast cylindrical aluminium or aluminium alloy vessel, without a lid, the bottom of which has been machined flat. It shall have an external diameter of (100 ± 1,5) mm and an overall height of (70 ± 1,5) mm. The wall thickness shall be (2,5 ± 0,5) mm and the base thickness $2{,}5\,^{+0{,}5}_{0}$ mm;

d) heat source, for heating the vessel uniformly;

e) stirrer;

f) heat-insulating board;

g) glycerol tristearate [$C_{17}H_{35}CO_2CH$ ($CH_2O_2CC_{17}H_{35})_2$] or any other material of similar specific heat which will produce the same result.

The same glycerol tristearate or other material can usually be used for at least 20 tests, but if it has been heated to a temperature above 200 °C, or in case of dispute, fresh material should be used.

5.3.2 Procedure

— Fill the vessel with glycerol tristearate up to 10 mm below the top.

— Fix the thermometer centrally in the vessel with its bulb about 6 mm from the bottom.

— Use the heat source to raise the temperature of the glycerol tristearate to approximately 185 °C, stirring from time to time.

— Transfer the vessel to the heat-insulating board.

— Allow the temperature to fall to (180 ± 1) °C, stirring continuously.

— Immediately place the vessel of hot glycerol tristearate in the centre of the bowl.

— Allow to stand for 20 min without further stirring.

— At the end of this period, remove the vessel and allow the kitchen sink to cool for a period of 45 min.

— Using a sponge or brush spread a coloured test solution over the surface to be tested and allow 5 min for it to react. Wipe off the reagent with a moist sponge and examine the kitchen sink. The coloured test solution shall be prepared as follows: Add 1 ml liquid detergent to 100 g of eosine or methylene blue. This mixture shall be made up with deionized water to a volume of 1 l.

5.3.3 Test results

Note any change of appearance of the tested surface of the kitchen sink when inspected from all sides with the naked eye at a distance of 60 cm and illuminated by a cool neon light of 150 lx measured at the surface of the sample.

5.4 Resistance to temperature changes

5.4.1 Test apparatus

5.4.1.1 **Hot water supply,** capable of delivering water at a temperature of about 95 °C.

5.4.1.2 **Cold water supply,** capable of delivering water at a temperature of about 15 °C.

5.4.1.3 **Manifold,** for connecting the hot water supply and the cold water supply to a discharge pipe.

5.4.1.4 **Discharge pipe,** with an internal diameter of 10 mm.

5.4.1.5 **Rigid framework or test rack** (see Figure 7) of such a construction that a kitchen sink can be mounted horizontally, in such a way that all the outer rim is supported. The kitchen sink shall not be fastened or fixed to the framework or test rack.

5.4.1.6 **Thermometer,** capable of measuring temperatures between 0 °C and 100 °C to an accuracy of ± 1 °C.