TECHNICAL DOCUMENT

WATER

SANITARY APPLIANCES

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Complementary specifications applicable to stainless steel sinks

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MODIFICATION HISTORY

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1 PURPOSE

Stainless steel sinks shall comply with Standards NF EN 13310 and NF EN 695 and shall also satisfy the complementary specifications given below.

The purpose of this document is to:

- describe the nature of the manufacturing material, the surface condition, design and manufacturing principles,
- specify the dimensional and fitness for use characteristics of stainless steel sinks.

2 FIELD OF APPLICATION

This document is applicable to all stainless steel sinks satisfying the definitions in article 4 in this document.

It is not applicable to sinks made of enamelled or synthetic materials, except for valve fitting connection dimensions.

3 MATERIALS, DESIGN AND MANUFACTURING

3.1 MATERIALS

3.1.1 Nature of the materials

Stainless steel used for manufacturing sinks may be chosen from among the following grades:

For ferritic steels:

- Z8C17 (X 6 Cr 17) for sink tops,
- Z4CT17 (X 3 Cr Ti 17) for sinks.

For austenitic steels:

- Z7CN18.9 (X 5 Cr Ni 18-10) for sink tops and sinks.

3.1.2 Thickness

The thickness of the steel plate before stamping shall not be less than 0.56 mm, to assure that sinks are satisfactorily strong.

3.1.3 Surface appearance

An inspection of visible surfaces after placement by the naked eye shall not find any appearance defects such as cracks, fissures, local planeness defects on the surfaces or local edge straightness defects.

3.2 DESIGN

A sink is composed essentially of one or more basins and drain board(s). It includes a space for installation of the valve fittings except for “basin” sinks, independent drain boards and special cases mentioned in article 3.2.2 in this document.

Ready-to-install sinks shall include an attachment system or a wood frame for mounting on a furniture element and their corners shall have a mechanical connection made by welding or any other appropriate means.

Sinks to be built in or integrated shall be delivered with at least 3 attachment lugs for a single round basin or a single drain board and 4 lugs for a rectangular basin and 8 attachment lugs in other cases.

The drain does not necessarily have to be supplied. When the drain is provided inside the NF sink packaging, it shall be NF-marked.

All sinks shall have sound insulation pads under the drain board(s) and the basin(s). The minimum dimensions of 150 x 100 x 1 mm (or equivalent surface area in other dimensions) allow the required acoustic performance to be achieved. However, smaller dimensions are permitted if the acoustic performance remains identical.

3.2.1 Sink

Each basin comprises:

- a drain orifice,
- an add-on overflow or a similar device.

For double or multiple basins:

- the overflow may be common to the basins,
- a sauce drain may be provided.

3.2.2 Tap ledge

All ready-to-install sinks and built-in or integrated sinks (with a width of 500 mm or more for the two latter) shall be provided with a ledge (perforated or not) for taps.

3.3 PRODUCTION

3.3.1 Flow

The bottom of basins and drain boards shall be designed to enable liquid flow to the drain orifice.

In particular, the inclination of the drain board towards the basin shall be at least 0.6%.

3.3.2 Cleaning

The sink shall be designed such that the user can access all visible parts of the sink for cleaning.

4 CHARACTERISTICS

4.1 DIMENSIONAL CHARACTERISTICS

Dimensional characteristics are checked using adapted measurement and check means appropriate for the dimensions to be measured (particularly concerning tolerances).

4.1.1 Overall dimensions

4.1.1.1 Ready-to-install sinks (standard)

- 800 X 600 mm (1 basin - 1 drain board),
- 900 X 600 mm (1 basin - 1 drain board),
- 1000 X 600 mm (1 basin - 1 drain board),
- 1200 X 600 mm (1 basin - 1 drain board),
- 1200 X 600 mm (2 basins - 1 drain board),
- 1400 X 600 mm (2 basins - 1 drain board),
- 1400 X 600 mm (2 basins - 2 drain boards
  or 2 basins + 1 drain board + 1 smooth rim
  or 2 basins + 2 smooth rims, one of the basins being designed to contain a removable drain board device).

Sinks may be longer than 1400 mm in modules of 100 mm.

The tolerance on these dimensions is ± 2 mm.

Some ready-to-install sinks may have a raised rear rim.

4.1.1.2 Sinks to be built in or integrated

The dimensions (length and width) are left to the initiative of the manufacturer.

The tolerance on these dimensions is ± 2 mm.

4.1.1.3 Depth of the main basin

The depth of the main basin measured between the bottom of the basin (at the plug hole) and the top of the sink rim shall be at least 150 mm.

4.1.2 Dimensional deviations

4.1.2.1 Angularity

The deflection measured in accordance with section 4.2 in Standard NF D14-510 shall remain less than 2% of the measured edge length.

4.1.2.2 Straightness of placement edges (edge in contact with the countertop, for example)

The deflection measured in the two planes (vertical and horizontal) measured in accordance with chapter 4.4 in Standard NF D 14-510 (sink fitted on the countertop) shall be less than 1% of the measured edge length.

4.2 SUITABILITY FOR USE: STRENGTH OF THE DRAIN BOARD

4.2.1 Operating procedure

Put the sink on an appropriate non-deformable support.

Fix the sink using the attachment lugs provided or any other equivalent means.

Put the dial gauges into position under the sink at the centre of each basin. Initialise the dial gauges.

Apply the load by means of a piston or any other appropriate means, at the centre of the drain board on an assembly composed of a rigid surface, covering 200X200 mm or less and a piece of cardboard with the same dimensions and between 5 and 10 mm thick. The total load applied shall be 130^{+2}_{0} kg.

Leave the load for 1 hour, then remove it and the rigid surface/cardboard assembly.

After 1 hour, note the residual deformation indicated by the dial gauges.

Make a water flow test on the drain board.

4.2.2 Specification

The residual deformation measured under the basin at the end of the test shall be ≤ 1 mm and the appliance shall show no signs of deterioration or water stagnation on the drain board.