WATER

TECHNICAL DOCUMENT

SANITARY APPLIANCES

Technical document 017-12

Complementary specifications applicable to WC pans

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CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT
84 avenue Jean Jaurès – Champs-sur-Marne – 77447 Marne-la-Vallée Cedex 2
Tel: +33 (0)1 64 68 82 82 – www.cstb.fr
MARNE-LA-VALLÉE / PARIS / GRENOBLE / NANTES / SOPHIA-ANTIPOLIS

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MODIFICATION HISTORY

Revision no.	Application date	Modifications
00	**21/12/2018**	**Update to the document layout and reference**

Contents

1 GENERAL SPECIFICATIONS

WC pans shall comply with Standards NF EN 997 (class I), NF D12-101, NF EN 33 and NF D14-601.
They shall also satisfy the specifications described below.

1.1 DIMENSIONAL CHECK

Dimension q (distance from the plane passing through the outlet orifice to the face of the parallelepiped, enclosure facing the wall) shall be checked once the seal has been installed.

1.2 PAN AND SEAT ASSEMBLY

A waiver is accepted for the theoretical opening angle of the toilet seat (7° instead of 8°) if:

⇨ it is delivered with short WC pans.
⇨ it is stable after an opening angle of 4° (offset hinge pins).

1.3 DISTANCE L

The distance between the centre line of the toilet seat attachment holes and the front of the WC pan, L, is fixed at 430 ± 10 mm.

When this dimension does not respect these specifications, a special NF-certified toilet seat (mark NF 240) shall be provided or recommended with the pan.

Note that the WC pan is said to be short if L< 420 mm.

1.4 4 L AND 5 L PANS

WC pans with a flush volume of under 6 L are no longer allowed by Standard NF DTU 60.1 P1-1-3 without a preliminary study of the installation; consequently, they cannot be NF certified.

1.5 EVACUATION OF TOILET PAPER

- The paper saturation time shall be checked between 10°C and 30°C with a margin of ± 3°.
- If the pan does not yield compliant results after 5 flushes, repeat the same operating procedure for 20 additional flushes with at least 16 compliant flushes.

1.6 DISTANCE m

The distance between the centre lines of the pan holes, m, is fixed at 155 ± 10 mm.

When this dimension does not respect these specifications, a special NF-certified toilet seat (mark NF 240) shall be provided or recommended with the pan.

2 RENEWAL OF WATER IN WC PAN TRAPS

2.1 TEST PRINCIPLE

The test on renewal of water shall be completed for WC pans alone or WC suites. For independent pans, the test with a low flush volume shall be carried out at 3 L.

The purpose of this test is to check, using a colouring material and the apparatus defined in section 5.8.2 in Standard NF EN 997, that after flushing, water in the WC trap has been renewed by at least:

- 99% for a complete flush volume;
- 94% for a reduced flush volume.

2.2 OPERATING PROCEDURE

2.2.1 For a complete flush volume

Make sure that the WC trap is perfectly clean and degreased.

Activate the cistern drain mechanism once and make sure that the WC trap is full of clean water.

Carefully pour 100 cm³ of a previously created mix composed of 1 g of fluorescein in 1000 cm³ water into the trap, taking care to prevent any splashing on the ceramic.

Stir gently to make sure that the mix is uniformly distributed in the trap.

Draw off 10 cm³ of water from the trap and pour these 10 cm³ into a large test tube and fill it up with clean water up to 1000 cm³. A few cubic centimetres of this new mix (dilution 1%) are poured into a test tube to form the control test tube.

Activate the cistern drain mechanism once again.

Stir gently, then draw off a few cm³ of water from the trap and pour it into a test tube identical to the control test tube.

2.2.2 For a reduced flush volume

Make sure that the WC trap is perfectly clean and degreased.

Activate the cistern drain mechanism once and make sure that the WC trap is full of clean water.

Carefully pour 100 cm³ of a previously created mix composed of 1 g of fluorescein in 1000 cm³ water into the trap, taking care to prevent any splashing on the ceramic.

Stir gently to make sure that the mix is uniformly distributed in the trap.

Preparation of the control test tube

Draw off 60 cm³ of water from the trap and pour these 60 cm³ into a large test tube and fill it up with clean water up to 1000 cm³. A few cubic centimetres of this new mix (dilution 6%) are poured into a test tube to form the control test tube.

Making the measurement

Activate the cistern drain mechanism once (or more times if necessary) and make sure that the WC trap is full of clear water.

Pour 100 cm³ of the previously used mix composed of 1 g of fluorescein in 1000 cm³ water into the trap, and stir gently to create a homogeneous mix in the trap.

Activate the cistern drain mechanism again (small flush).

Stir gently, then draw off a few cm³ of water from the trap and pour it into a test tube identical to the control test tube.

2.3 SPECIFICATIONS

The result of the test is determined by observation of the colour of the content of the two test tubes.

This result is considered satisfactory if the colour of the comparison test tube is the same as or lighter than the colour of the control test tube.