

Translation from Finnish
Legally binding only in Finnish and Swedish

11/19

Decree of the Ministry of the Environment

on the Type Approval of Water Seals Intended for Waste Water Installations of Buildings

By decision of the Ministry of the Environment, the following is enacted pursuant to section 6, subsection 3; section 9, subsection 2; and section 10, subsection 3 of the Act on the Type Approval of Certain Construction Products (954/2012):

Section 1

Scope of application

This Decree applies to the requirements of type approval of water seals intended for waste water installations in a building and on property. This Decree covers the water seals of sinks used for the drainage of sinks as well as separate water seals to be installed in the drainage pipes. This Decree does not apply to water seals which are a structural part of a plumbing fixture. This Decree covers water seals the nominal size of the drain connection pipe of which is at most DN/OD 50.

Section 2

Establishment of conformity

Type approval can be used to demonstrate that the water seals comply with the essential technical requirements laid down in section 117 c of the Land Use and Building Act (132/1999), as amended by Act (958/2012), and thereunder.

Section 3

Structure and outer appearance

An accredited testing laboratory shall examine the outer and inner surfaces of the water seal visually without magnification.

Of the water seal, the installability and the demounting and remounting of parts intended to be detached for cleansing shall be examined. The installation and service instructions of the water seal shall be simultaneously examined.

Section 4

Dimensions

An accredited testing laboratory shall inspect the dimensions of the water seal. The dimensions shall conform to the dimensions notified by the manufacturer.

Section 5

Depth of water seal

An accredited testing laboratory shall measure the depth of water seal of the water seal.

Section 6

Materials and temperature resistance

An accredited testing laboratory shall inspect the information on materials submitted by the manufacturer.

The temperature resistance of a water seal shall be tested with the temperature variation test in accordance with Table 1. The water seal may not leak during the test or be damaged. The water seal shall meet the airtightness requirement after the test.

Table 1. Temperature variation test of a water seal.

Temperature variation test cycle ¹⁾	Water temperature °C
Hot water flow rate (0.5±0.05) l/s, (60±2) s	93±2
Pause (60±2) s	-
Cold water flow rate (0.5±0.05) l/s, (60±2) s	15±10
Pause (60±2) s	-

¹⁾ Cycles (length 4 min) repeated 1,500 times, duration 100 h

Section 7

Tightness

An accredited testing laboratory shall test the tightness of the water seal. The tightness tests to be performed on the water seal and the test requirements are given in Table 2.

Table 2. Tightness tests of a water seal, test parameters and requirements.

Tightness test	Pressure	Test period	Requirement
Air tightness ¹⁾	400 Pa	15 min	≥ 360 Pa
Watertightness of the foot valve	120 mmH ₂ O ²⁾	1 h	Leak ≤ 1 l/h
Watertightness of the water seal configuration	10 kPa	5 min	Tight

¹⁾ The temperature of the water seal water and the room temperature may deviate from each other at most ±2°C.
²⁾ mmH₂O water column

Section 8

Flow rate

An accredited testing laboratory shall measure the flow rate of the water seal with the foot valve in a water seal flow-rate test basin. During the test, the height of water level in the basin shall be (120 ± 2) mm with the exception of bathtub water seals for which the height of water level shall be (300 ± 2) mm. When testing the overflow rate, the height of water level shall be (30 ± 2) mm above the centre line of the weir with the exception of bathtub and shower tray water seals for which the height of water level shall be (60 ± 2) mm.

If the drain pipe of the water seal is meant for floor connection, the drain pipe shall be connected with a bend to a same-size horizontal drainage pipe, open at the other end and 0.5 m in length. This pipe shall be placed so that the height difference between the water level of the pipe and that of the water seal is 0.5 metres.

If the water seal is equipped with a spigot for a washing machine, the water flow shall be measured from the basin also simultaneously with the water flow of the washing machine spigot of 0.6 litres/second. In addition, it shall be inspected whether water can rise to the basin through an open foot valve using only the water flow of the washing machine spigot.

Section 9

Marking

An accredited testing laboratory shall inspect the markings of the water seal.

Section 10

Type testing

For type approval, an accredited testing laboratory shall type test the water seal in accordance with the extent of testing presented in Table 1.1 of Appendix 1. For type approval, the manufacturer shall, in addition to samples, submit product designs, material information and certificates as well as installation and service instructions.

Section 11

Quality control relating to type approval

The certifying body for quality control shall verify that the water seals comply with the requirements of type approval and also meet the conditions set in the decision on type approval.

The certifying body for quality control shall carry out an initial inspection of the production, an on-going control of the internal production quality control as well as the selection of random samples of products and their testing once annually or more frequently if the products do not meet the type-approval requirements. The extent of testing of the random samples is presented in Table 1.2 of Appendix 1.

The manufacturer's internal production quality control shall cover at least the inspections and tests presented in Appendix 2.

Section 12

Entry into force

This Decree enters into force on 1 January 2020.

Helsinki, 9 April 2019

Minister of the Environment, Energy and Housing Kimmo Tiilikainen

Senior Specialist Tomi Marjamäki

Type testing of a water seal and the tests used in the verification of quality control

Table 1.1. The properties to be tested in the type tests of water seals and the number of samples.

Property to be tested	Samples to be tested
Structure and outer appearance	3 samples
Dimensions	1 sample
Depth of water seal	1 sample
Materials and temperature resistance	1 sample
Tightness	Air tightness: 3 samples Water tightness: 1 sample
Flow rate	1 sample

Table 1.2. Properties to be tested in the verification of quality control of water seals and the minimum sampling frequency.

Property to be tested	Minimum sampling frequency
Structure and outer appearance	3 samples/product/year
Dimensions	1 sample/product/year
Tightness	Air tightness: 3 samples/product/year Water tightness: 1 sample/product/year
Marking	3 samples/product/year

Testing by the manufacturer's internal quality control

Table 2.1. Inspections and tests of water seals by the internal quality control and their minimum frequency.

Property to be tested	Extent of testing
Structure and outer appearance	All products
Dimensions	At the beginning of a production patch and by random tests at least once a week
Materials:	Manufacturer's raw material certificate / production batch
Air tightness	At the beginning of a production patch and by random tests at least once a week
Marking	Continuously be random tests