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# Test report

## Testing of Roth QuickBox with Roth Sealing Ring

Test method ETAG 022, Annex F

**Author(s)**

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# Test Report

## Testing of Roth QuickBox with Roth seal ring. Test method ETAG 022, Annex F

**Sanitary laboratory****Project leader/writer(s): Bjørn-Roar Krog****Date:**

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**Client(s):**

Roth North Europe A/S

**Clients reference:**

Lars Møller

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**Summary:**

SINTEF Building and Infrastructure has, on behalf of Roth North Europe A/S, carried out testing of Roth QuickBox with Roth Sealing Ring.

The tests have been carried out in accordance with ETAG 022, Annex F "Water tightness around penetrations and other details in wet room walls with flexible substrate".

Result: Passed, see Table 4.1 for test results

**Project leader/writer:**


Bjørn-Roar Krog

*Signature***Controlled by:**

Lars-Erik Fiskum

*Signature***Approved by:**

Lars-Erik Fiskum

*Signature***Report no.:**

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**Classification:**

Restricted

## 1 Introduction

SINTEF Building and Infrastructure has tested the watertightness for Roth QuickBox with Roth Sealing Ring. The test was conducted on behalf of Roth North Europe A/S. The order was received from Bo Herbst-Nielsen at Roth North Europe A/S by a contract on 18.01.2018.

Geir Asle Håpnes (Senior Engineer) performed the test in accordance with ETAG 022, Annex F. The test was performed in room no. 166 with test rig no. MO-5571.

The mounting of the test specimens was performed in room no. U40. The test specimens were made by Audun Martinsen from Roth Norge AS. Date: March 6<sup>th</sup>, 2018.

## 2 Test method

The watertightness test for Roth QuickBox with Roth Sealing Ring has been carried out in accordance with ETAG 022, Annex F "*Water tightness around penetrations and other details in wet room walls with flexible substrate*". See Table 4.1 for test result.

## 3 Description of the tested products

Table 3.1 and Fig. 3.1-3.2 shows the controlled components from Roth North Europe A/S. Table 3.2 shows the test set up.

The components were delivered to SINTEF Building and Infrastructure from Roth North Europe A/S on 12.01.2018; the test items were in good condition when delivered.

*Table 3.1: Controlled components*

Component	Quantity	Figure
Roth QuickBox with Roth Sealing Ring	2	3.1 and 3.2

*Table 3.2: Test set up*

Description	Mounting description
Roth QuickBox and Fibo bathroom wall panel	See Chapter 5.1



*Fig. 3.1: Roth QuickBox with Roth Sealing Ring*



*Fig. 3.2: Roth Sealing Ring*

## 4 Tests, methods, requirements and results

Table 4.1 shows performed test and result.

*Table 4.1: Summary ETAG 022 – Roth QuickBox and Fibo bathroom wall panel*

ETAG 022	Characteristics	Number	Passed	
			Yes	No
Annex F	Water tightness of details in wet room walls	2	x	

## 5 Assembling and mounting

### 5.1 Assembling and mounting – Roth QuickBox and Fibo bathroom wall panel

- Assembling and mounting performed by: Audun Martinsen from Roth Norge AS under supervision by Geir Asle Håpnes from SINTEF Building and Infrastructure.
- Date of assembling: March 6<sup>th</sup>, 2018
- Test started: March 13<sup>th</sup>, 2018

Step 1: Inserting of Roth QuickBox in Fibo bathroom wall panel with SINTEF Technical Approval no. 2289, see Fig. 5.1.1. The hole in the panel is  $\varnothing$  57 mm.

Step 2: Inserting and tightening of Roth Sealing Ring, see Fig. 5.1.2.

Finished test specimens are shown in Fig. 5.1.3 and 5.1.4.



Fig. 5.1.1: Inserting of Roth QuickBox in Fibo bathroom wall panel.



Fig. 5.1.2: Inserting and tightening of Roth Sealing Ring.



Fig. 5.1.3: Finished test specimens.



Fig. 5.1.4: Photo close up of the finished test specimen.

## 6 ETAG 022, Annex F

### 6.1 Test method

The water tightness was tested according to ETAG 022, “*Guideline for European Technical Approval (ETAG) of watertight covering kits for wet room floors and or walls, Annex F, Water tightness of details in wet room walls including penetrations for pipes*”.

The test object was exposed to the following cycle:

1. Hot water ( $60 \pm 3$  °C) for 60 seconds
2. Break for 60 seconds
3. Cold water ( $10$  °C  $\pm$  3 °C) for 60 seconds
4. Break for 60 seconds

This cycle is repeated 3000 times.

After 1500 cycles the test pieces are having a rest for approximately two days. The test pieces are exposed to further 1500 cycles of hot and cold water after the break as described above.

## 7 Test results

SINTEF Building and Infrastructure has tested the watertightness between Roth QuickBox with Roth Sealing Ring and Fibo bathroom wall panel. The watertightness test was passed, see Table 4.1.

The test specimens were opened for inspection (detection of possible water leakages) after the end of the water spray test. This applies for all test specimens.



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