

# Test according to ETAG 022

Installation box Easy Connect  
with sealing collar

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Projekt: -  
Factory: -  
Date of order: 12 November 2018  
Test request: Test according to ETAG 022 (11.2010) Annex A  
Material: Installation box with sealing collar  
a) **Bette Installation box Easy Connect**  
Number of samples: 1 sample  
Sampling: -  
Sample delivery date: 30 October 2018  
Test duration: 30 October 2018 – 05 December 2018

Greven, 05 December 2018



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Test results apply exclusively to the specimen submitted. Without written permission of the testing laboratory it is not allowed to publish parts of the report.

a) information by customer

Geschäftsführer: Prof. Dr. Roland Hüttl

Amtsgericht Hamburg, HRB 130568, St.Nr.: 46/736/03268





## 1. Watertightness around penetrations

According to DIN 18534-1:2017-07, areas under/behind bathtubs and shower trays have to be protected and sealed against water. To verify the watertightness, a testbox (according to ETAG 022 Annex A: Guideline for European technical approval of watertight covering kits for wet room floors and or walls) was mounted with the tested sealing system from Bette GmbH & Co. KG. The aim of this test was to evaluate the ability of the install system in combination with the sealing system, when exposed to water and mechanical stresses.

The testbox was mounted with all the sealing and install systems which are approved by the customer. Tiles, tile adhesive, joint material and silicone was not applied, in order to expose the sealing system directly with water. The test samples were made by the customer at Kiwa GmbH - TBU in Greven at 30 October 2018.

After filling the box with a 10 cm water column for a duration of 24 hours, the details of the sealing system were dynamically loaded according to ETAG 022. After refilling the water up to 10 cm the thermal stress test was initiated. The test sequence started first with a spraying test with 90°C/10°C tempered water over 100 cycles, following 1500 cycles with 60°C/10°C tempered water. After the spraying the testbox was filled with 10 cm water column for 7 days.

## 2. System Setup

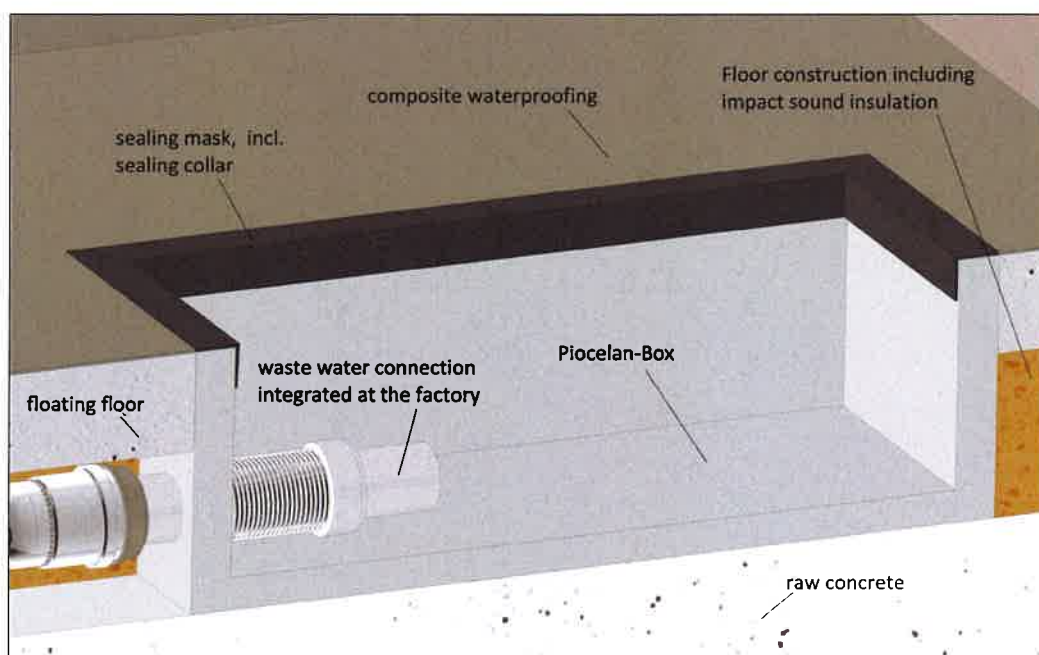


image 1: basic system setup

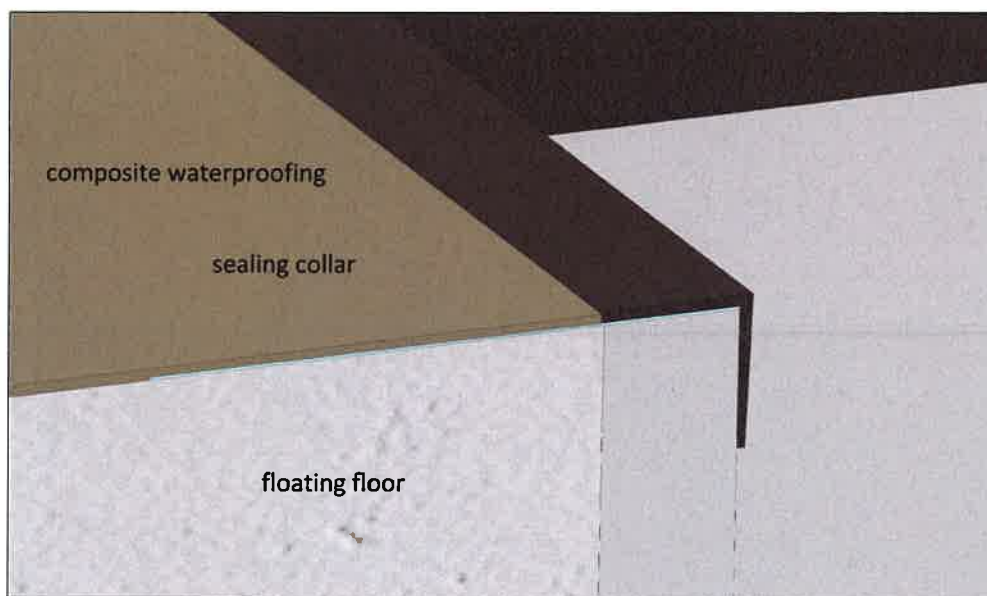


Image 2: collar setup

## 2. Application sequence

Sample preparation: 30 October 2018

- application of the first layer Aquafin RS 300 in the whole test box
- mounting Bette Installation box Easy Connect in the respective gaps in the base plate
- application of the collar on the frame of the installation box with Bette polymeric adhesive
- application of the collar with the underground with Aquafin RS 300
- application of the second layer Aquafin RS 300 in the whole test box



Test report no. 2.1/11168/0910.0.1-2018e

### 3. Test sequence and results

Action	Date	Watertight ?
Fill the box with water (10 cm) for 24 hours	05.11.2018	yes
Dynamic load test (sand bag 30 kg, 45 cm height)	06.11.2018	yes
Fill the box with water (10 cm) for 24 hours	06.11.2018	yes
Start 100 cycles alternatingly flush with 90 °C and 10 °C tempered water (6,6 h.)	19.11.2018	yes
start 1500 cycles of exposure to spray water of alternatingly 60 °C and 10 °C (100h)	20.11.2018	yes
2nd day visual check	21.11.2018	yes
3rd day visual check	22.11.2018	yes
4th day visual check	23.11.2018	yes
5th day visual check	24.11.2018	yes
Fill the box with water (10 cm) for 7 days	26.11.2018	yes
2nd day visual check	27.11.2018	yes
3rd day visual check	28.11.2018	yes
4th day visual check	29.11.2018	yes
5th day visual check	30.11.2018	yes
6th day visual check	01.12.2018	yes
7th day visual check, end of the test / end of exposure to stress	02.12.2018	yes
end of the test / end of exposure to stress checking the humidification of the underground	03.12.2018	yes

Kiwa GmbH – TBU tested the water tightness on the mentioned sealing system of Bette GmbH & Co. KG according to ETAG 022 Annex A and specified them as watertight.

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