TALLINNA
TEHNIKAÜLIKOOL

Ehituse ja arhitektuuri instituut
EHITUSMATERJALIDE TEADUS- JA KATSELABORATOORIUM

PRINTOUT

Tellija:
WPM Eesti OÜ

Männiku tee 104a
11216 TALLINN

17.05.2019

Katseprotokoll N° 372/19

Tootja: WPM Eesti OÜ

Tööülesanne: Betooni töövuugi tihenduslindi **WPM Sealing Element 125 R / 120L** veepidavuse katsetamine.

Proovi kirjeldus: Betoonist veereservuaarid tähistusega Katsekeha **nr. „1“**, **„2“** ja **„3“** Katsekehade mõõtmed ja konstruktsioon esitatud **joonistel 1** ja **2** .

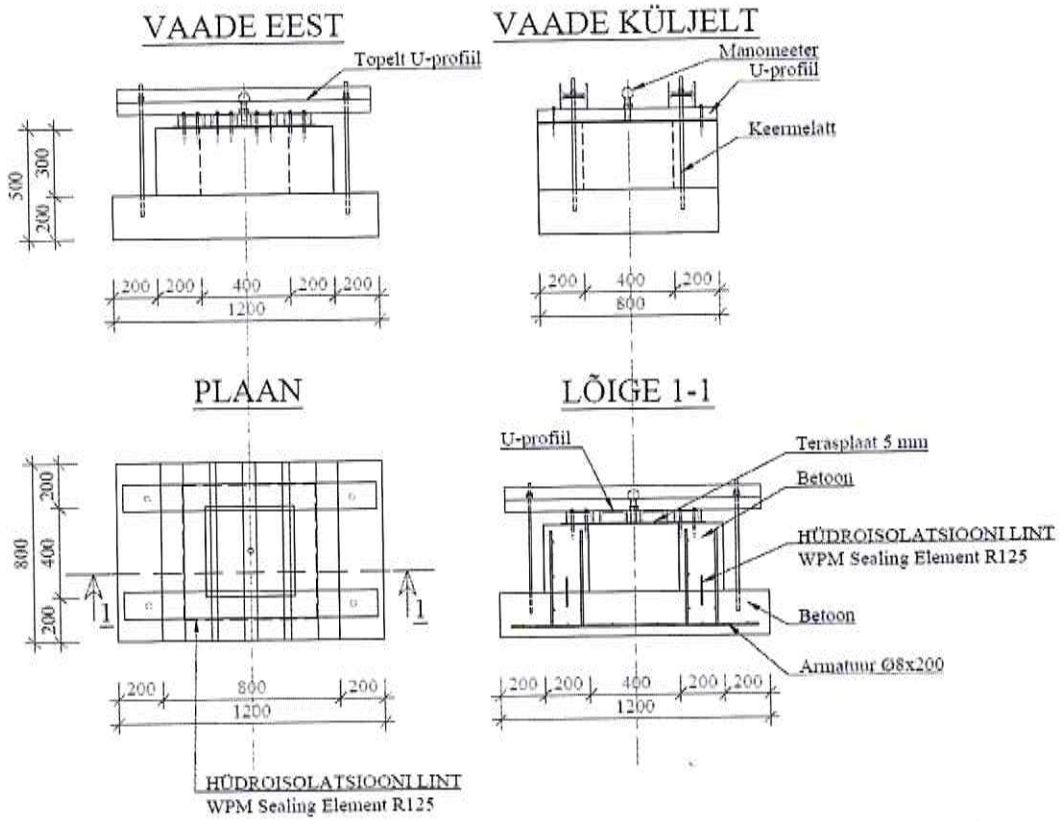
Toodud laborisse vastavalt 22.10.18, 03.12.18 ja 07.03.19 tellija poolt.

Katsetamine: Tihenduslindi veepidavuse määramiseks survestati reservuaarides olev vesi kõigepealt algrõhuni 1,5 kPa, seejärel tõsteti veerõhku astmeliselt 0,5 kPa kaupa, hoides iga veerõhu astme k.a. algrõhu juures 24 tundi.
Katse ajal jälgiti perioodiliselt töövuukide veepidavust s.t., et vesi poleks imbunud betooni töövuukide vahelt välja. Katse loeti lõppenuks kui visuaalselt oli võimalik hinnata betooni märgumist. Töövuukide tihenduslintide veepidavust rahuldavaks tulemuseks loeti rõhku, mille juures ei esinenud märgumist betooni pealispinnal.

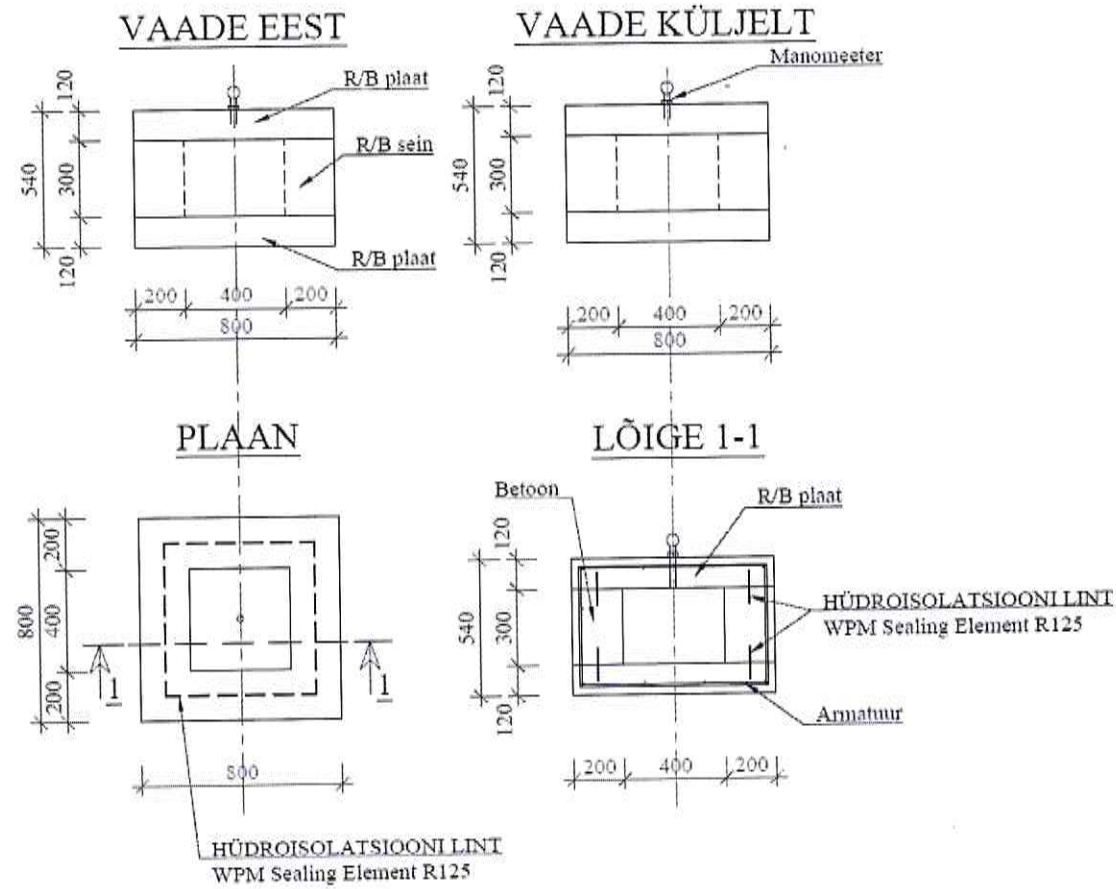
Katsetulemused; on toodud järgnevas tabelis. Fotodel 1-3 on katsekehad pärast katse lõpetamist. Jämedas trükis on toodud maksimaalsed rõhud, mille juures märgumist ei esinenud: Katsekeha **nr. „1“** ja **„2“** - 2,5 kPa ja **„3“** - 4,5 kPa.

Katsekeha nr	Vee surve [kPa]	Märgumine
1	1,5	Ei
	2,0	Ei
	2,5	Ei
	3,0	Jah
2	1,5	Ei
	2,0	Ei
	2,5	Ei
	3,0	Jah
3	1,5	Ei
	2,0	Ei
	2,5	Ei
	3,0	Ei
	3,5	Ei
	4,0	Ei
	4,5	Ei
	5,0	Jah

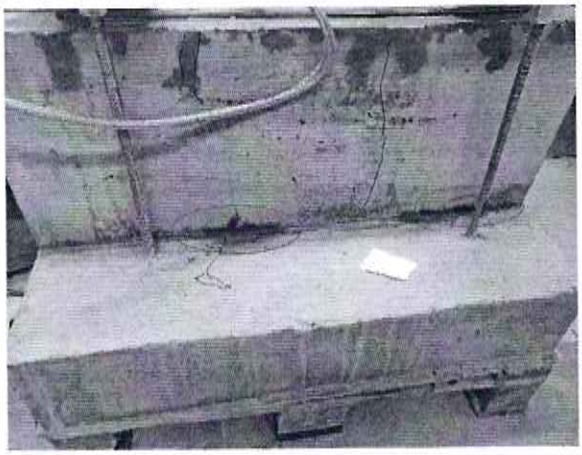
Joonis 1. Katsekehad nr 1 ja 2.



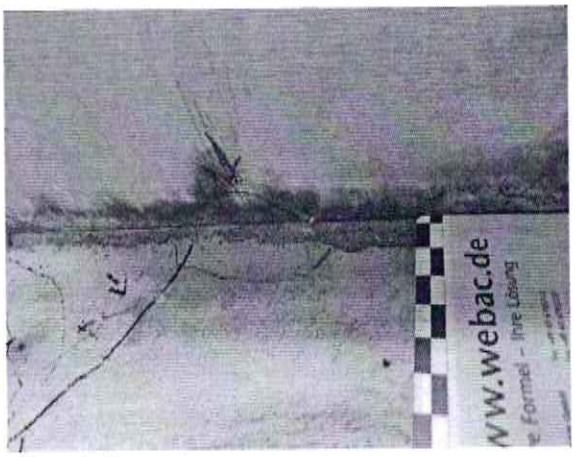
Joonis 2. Katsekeha nr 3



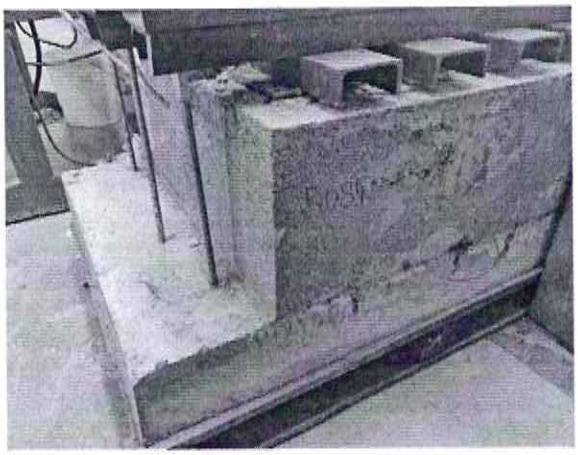
Katsekehade fotod:



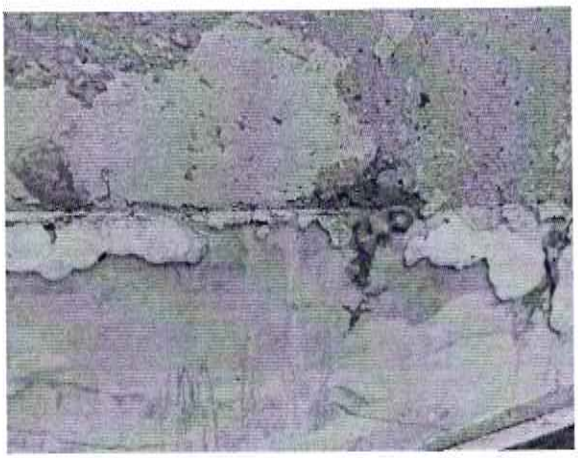
Katsekeha nr 1



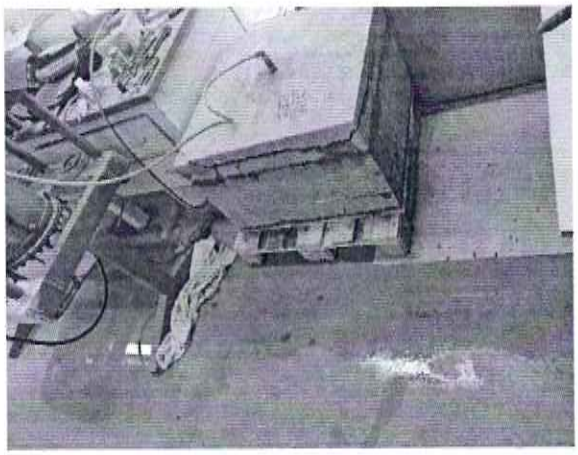
Katsekeha nr 1



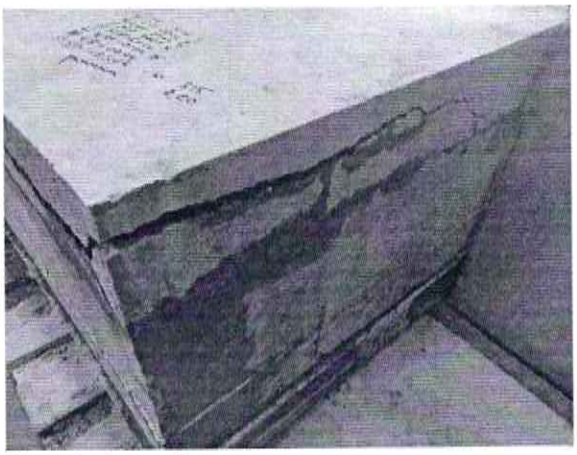
Katsekeha nr 2



Katsekeha nr 2



Katsekeha nr 3



Katsekeha nr 3

Saadud tulemused kehtivad ainult kirjeldatud katsekehade kohta.

(allkirjastatud digitaalselt)

Margit Rosenberg
Laboratooriumi juhataja kt.

EESTI KEELE – INGLISE KEELE VANDETÕLK

TRUE PRINTOUT

IDITY CONFIRMATION SHEET

NED FILES

E NAME	FILE SIZE
r372-19.pdf	680 KB

SIGNERS

NO.	NAME	PERSONAL CODE	TIME
1	MARGIT ROSENBERG	45306250263	17.05.2019 16:13:12 +03:00

VALIDITY OF SIGNATURE

SIGNATURE IS VALID

ROLE / RESOLUTION

PLACE OF CONFIRMATION (CITY, STATE, ZIP, COUNTRY)

SERIAL NUMBER OF SIGNER CERTIFICATE

123601494088307755093863069621299410894

ISSUER OF CERTIFICATE	AUTHORITY KEY IDENTIFIER
ESTEID-SK 2015	B3 AB 88 BC 99 D5 62 A4 85 2A08 CD B4 1D 72 3B 83 72 47 51

HASH VALUE OF SIGNATURE

30 31 30 0D 06 09 60 86 48 01 65 03 04 02 01 05 00 04 20 FC 45 98 F3 63 4D 95 AE 56 1ACD 60 64 F8 FD 56 DF 66 D3 3A0F E5 C C 82 74 AB 28 5E E2 B8 30 F9

The print out of files listed in the section **"Signed Files"** are inseparable part of this Validity Confirmation Sheet.

NOTES

Translation from Estonian

/logo/: TALLINN UNIVERSITY OF TECHNOLOGY
Department of Civil Engineering and Architecture
RESEARCH AND TESTING LABORATORY OF BUILDING MATERIALS

Client:
WPM Eesti OÜ

Männiku tee 104a
11216 TALLINN

17 May 2019

Test protocol no. 372/19

Manufacturer: WPM Eesti OÜ

Work task: Testing watertightness of the concrete working joint sealing tape **WPM Sealing Element 125 R/120L**.

Description of the test sample: Concrete water reservoirs marked as Test piece **no. "1", "2"** and **"3"**
Dimensions and structure of the test pieces are shown in **Figures 1** and **2**.

Delivered to the laboratory by the client on 22 October 2018, 3 December 2018 and 7 March 2019, respectively.

Testing: In order to determine watertightness of the sealing tape, water in the reservoirs was first pressurised to an initial pressure of 1.5 kPa, then the water pressure was increased step-by-step by 0.5 kPa, every level of water pressure, including the initial pressure, was kept for 24 hours.

During the test, watertightness of the working joints was periodically monitored, i.e. it was checked that the water had not infiltrated out through the concrete working joints. The test was considered to be completed when visual assessment of concrete wetting could be performed. A satisfactory result of watertightness of the sealing tapes of the working joints was the pressure at which there was no wetting on the surface of the concrete.

The test results are shown in the table below. Photos 1-3 depict the test pieces after the completion of the test. The maximum pressures at which no wetting was noted are given in bold font: Test piece **no. "1" and "2" - 2.5 kPa and "3"** - 4.5 kPa.

Test piece no.	Water pressure [kPa]	Wetting
1	1.5	No
	2.0	No
	2.5	No
	3.0	Yes
2	1.5	No
	2.0	No
	2.5	No
	3.0	Yes
3	1,5	No
	2.0	No
	2.5	No
	3.0	No
	3.5	No
	4.0	No
	4.5	No
	5.0	Yes

Figure 1. Test pieces no. 1 and 2.

FRONT VIEW

Double U-profile

PLAN

HYDRO-INSULATING TAPE
WPM Sealing Element R125

SIDE VIEW

Manometer
U-profile
Threaded bar

SECTION 1-1

U-profile
Steel plate 5 mm
Concrete
HYDRO-INSULATING TAPE
WPM Sealing Element R125
Concrete
Reinforcement Ø8x200

Figure 2. Test piece no. 3

FRONT VIEW

Reinforcement concrete plate
Reinforcement concrete wall
Reinforcement concrete plate

PLAN

HYDRO-INSULATING TAPE
WPM Sealing Element R125

SIDE VIEW

Manometer

SECTION 1-1

Concrete
Reinforcement concrete plate
HYDRO-INSULATING TAPE
WPM Sealing Element R125
Reinforcement

Test piece photos:

Test piece no. 1

Test piece no. 1

Test piece no. 2

Test piece no. 2

Test piece no. 3

Test piece no. 3

The results obtained apply only to the described test pieces.

(digitally signed)

Margit Rosenberg
Acting Laboratory Manager

Translated by **ESTONIAN-ENGLISH SWORN TRANSLATOR EDDA TEDER.**

Appointed to office on 8 January 2015, professional certificate no. 40, issued on 27 January 2015.
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tel.: 744 0088 (Tartu), 626 4281 (Tallinn); e-mail: dokumendid@luisa.ee; website: www.luisa.ee.
Information about sworn translators: http://www.just.ee.
Chamber of Sworn Translators: http://www.vandetolgid.ee.

This is a sworn translation of a digitally signed test protocol as submitted for translation.

This translation is registered under no. **141**.
Tartu, 3 September 2019

This document consists of seven (7) numbered pages, bound with string and an embossing seal.