

Determination of mortar shrinkage deformations

(designation of the test)

Test performed in accordance with: LST 1413.9 Mortar. Testing methods. Determination of shrinkage-expansion deformation.

(number of normative document or description of a test method, test procedures, test error)

Product: Clay powder, 0-2 fraction gravel, reinforcement material

(name, mark of the normative document or description, means of identification)

Client: “ECOCOCON” Ltd, Dievogalos Village, Dievogalos str. 69, Kaunas Dist.

(name and address)

Producer: “ECOCOCON” Ltd, Dievogalos Village, Dievogalos str. 69, Kaunas Dist.

(name and address)

Test results:

Indicator and Dimension	Test Method Mark	Notes
Relative deformation ε , mm/m	LST 1413.9:1997	1.5

Conditions of the test: the temperature $18 \pm 2^\circ\text{C}$, relative humidity $65 \pm 10\%$.

Test equipment: Metal frame with clock indicators at the top.

Place of the test: Laboratory of Building Thermal Physics, IAC KUT

(name of the test laboratory)

Specimens delivered: 17-12-2012 Date of testing: 03-01-2013

Specimens selected: Specimens were formed at the Laboratory of Building Thermal Physics, IAC KUT in accordance with the requirements of LST 1413.6:1995.

Annexes: 1 – diagram of deformations; 2 – properties of the mortar determined.

(any deviations, additional tests, exceptions and any information related to the test)

Technical Manager:

(technically responsible for the test)

J.Ramanauskas

(name, surname)

Test performed by:

(technically responsible for the test)

J.Šadauskienė

(name, surname)

L.S.

The results of the test report refer exclusively to the specimens tested.
No part of this report may be reproduced without the written consent of the Laboratory.

Preparation of Specimens

6 prisms (40 x 40 x 160) mm were produced out of single mortar mixing. Prisms were made in metal molds with the bottom and kept as specified in LST 1413.6. 4 specimens from the produced prisms were used to measure the deformations and 2 - to determine the compressive strength.

Method and Equipment

The test was carried out according to an alternative method, using a metal frame with clock indicators. Metal frame (diagram shown in Figure 1) and clock indicators can help measure the change in length at the accuracy of 0.01 mm.

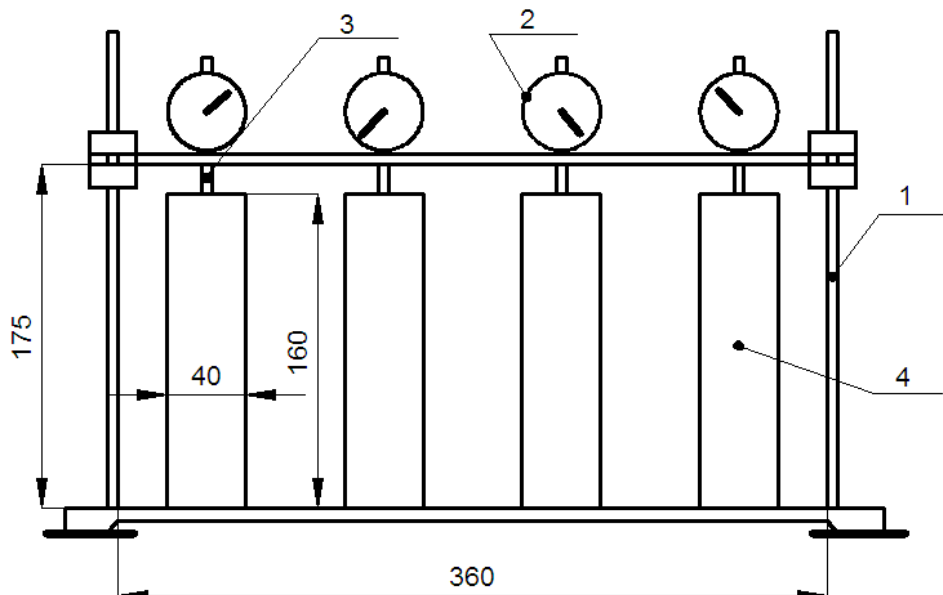


Figure 1. Metal frame with clock indicators
1 – frame, 2 – clock indicator, 3 – indicator stem, 4 – specimen.

Annex 1

Diagram of mortar shrinkage deformations

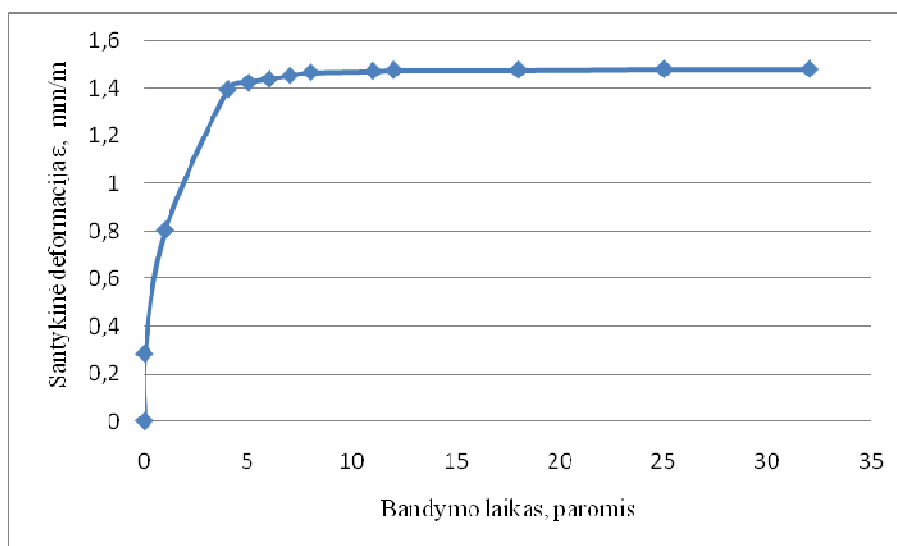


Figure 1. Diagram of mortar shrinkage deformations

Santykinė deformacija	Relative deformation
Bandymo laikas, paromis	Testing time in days

Annex 2

Properties of the mortar determined

Table 2. Properties of the mortar determined

Indicator and Dimension	Test Method Mark	Notes
Density ρ , kg/m ³	LST 1413.5:1995 (natural conditions)	1800
Compressive strength f , N/mm ² (MPa)	LST 1413.6:1995	1.7

The results of the test report refer exclusively to the specimens tested.
No part of this report may be reproduced without the written consent of the Laboratory.