Kahlid. Osa 8: Lineaarse soojuspaisumise määramine

Ceramic tiles - Part 8: Determination of linear thermal expansion (ISO 10545-8:2014)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 10545-8:2014 sisaldab Euroopa standardi EN ISO 10545-8:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 10545-8:2014 consists of the English text of the European standard EN ISO 10545-8:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.06.2014.	Date of Availability of the European standard is 04.06.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Ceramic tiles - Part 8: Determination of linear thermal expansion (ISO 10545-8:2014)

Carreaux et dalles céramiques - Partie 8: Détermination de la dilatation linéique d'origine thermique (ISO 10545-8:2014)

Keramische Fliesen und Platten - Teil 8: Bestimmung der linearen thermischen Dehnung (ISO 10545-8:2014)

This European Standard was approved by CEN on 7 May 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 10545-8:2014) has been prepared by Technical Committee ISO/TC 189 "Ceramic tile" in collaboration with Technical Committee CEN/TC 67 “Ceramic tiles” the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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Endorsement notice

The text of ISO 10545-8:2014 has been approved by CEN as EN ISO 10545-8:2014 without any modification.

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Determination of linear thermal expansion

1 Scope

This part of ISO 10545 defines a test method for determining the coefficient of linear thermal expansion of ceramic tiles.

2 Principle

Determination of the linear thermal expansion coefficient for the temperature range from ambient temperature to 100 °C.

3 Apparatus

3.1 Suitable thermal expansion apparatus, capable of a rate of heating of (5 ± 1) °C/min with uniform distribution of heat. Certain types of apparatus require a soaking time at 100 °C.

3.2 Vernier calipers, or other suitable device.

3.3 Drying oven, capable of being operated at (110 ± 5) °C. Microwave, infrared or other drying systems may be used provided that it has been determined that equal results are obtained.

3.4 Desiccator

4 Test specimens

Cut two test specimens at right angles from the central portion of one tile so that their lengths are suitable for the apparatus. The ends of the test specimens shall be ground flat and parallel.

If necessary, grind the test specimens so that the length of any side in cross-section is less than 6 mm and the area of cross-section is greater than 10 mm^2. The minimum length of the test specimens should be 25 mm. In the case of glazed tiles, the glaze shall not be ground off the test specimens.

5 Procedure

It is necessary to make a previous calibration of the apparatus with a standard test specimen. The dimensions of the standard test specimen shall be the same as the dimensions of the test specimen.

Dry the test specimens at (110 ± 5) °C until they reach constant mass, i.e. when the difference between two successive weightings at intervals of 24 h is less than 0,1 %. Allow them to cool in the desiccator (3.4) at ambient temperature.

Using vernier calipers (3.2), determine the lengths to an accuracy of 0,002 times the length.

Place a test specimen in the apparatus (3.1) and record the ambient temperature.