

ISO 10545-23:2025-07 (E)

Ceramic tiles - Part 23: Determination of elastic modulus for glazed and unglazed ceramic tiles, substrate and glaze layer

Contents

Page

Foreword.....	iv
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Principle.....	2
5 Apparatus.....	2
5.1 Testing machine.....	2
5.2 Data acquisition.....	2
5.3 Dimensional measuring devices.....	2
6 Test specimens.....	2
6.1 Test specimen size.....	2
6.2 Test specimen preparation.....	3
6.2.1 Test specimen machining.....	3
6.2.2 Test specimen handling and storage.....	3
6.2.3 Number of test specimens.....	3
7 Test procedure.....	3
7.1 Testing machine and loading speed.....	3
7.2 Elastic modulus measurement.....	4
7.3 Measurement for the thickness of glaze layer.....	5
7.4 Temperature and relative humidity.....	5
8 Calculation of elastic modulus.....	6
8.1 Calculation of elastic modulus of test specimens.....	6
8.2 Calculation of elastic modulus of the glaze layer.....	6
8.3 Mean value and standard deviation.....	7
9 Analysis of precision and uncertainty.....	7
10 Test report.....	7
Annex A (informative) Application of elastic modulus of ceramic tiles.....	9
Annex B (informative) Preparation of test specimens for elastic modulus tests.....	11