INTERNATIONAL STANDARD

ISO 10545-7

First edition
1996-12-15

Ceramic tiles —

Part 7:
Determination of resistance to surface abrasion for glazed tiles

Carreaux et dalles céramiques —

Partie 7: Détermination de la résistance à l'abrasion de surface pour les carreaux et dalles émaillés

Reference number
ISO 10545-7:1996(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10545-7 was prepared by Technical Committee ISO/TC 189, *Ceramic tile*.

ISO 10545 consists of the following parts, under the general title *Ceramic tiles*:

— *Part 1: Sampling and basis for acceptance*

— *Part 2: Determination of dimensions and surface quality*

— *Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density*

— *Part 4: Determination of modulus of rupture and breaking strength*

— *Part 5: Determination of impact resistance by measurement of coefficient of restitution*

— *Part 6: Determination of resistance to deep abrasion for unglazed tiles*

— *Part 7: Determination of resistance to surface abrasion for glazed tiles*

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Printed in Switzerland

— *Part 8: Determination of linear thermal expansion*

— *Part 9: Determination of resistance to thermal shock*

— *Part 10: Determination of moisture expansion*

— *Part 11: Determination of crazing resistance for glazed tiles*

— *Part 12: Determination of frost resistance*

— *Part 13: Determination of chemical resistance*

— *Part 14: Determination of resistance to stains*

— *Part 15: Determination of lead and cadmium given off by glazed tiles*

— *Part 16: Determination of small colour differences*

— *Part 17 Determination of coefficient of friction*

Annex A of this part of ISO 10545 is for information only.

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Ceramic tiles —

Part 7:
Determination of resistance to surface abrasion for glazed tiles

1 Scope

This part of ISO 10545 specifies a method for determining the resistance to surface abrasion of all glazed ceramic tiles used for floor covering.

2 Normative reference

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10545. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10545 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8486-1:— [1], *Bonded abrasives — Grain size analysis — Designation and determination of grain size distribution — Part 1: Macrogrits F 4 to F 220.*

ISO 10545-14:1995, *Ceramic tiles — Part 14: Determination of resistance to stains.*

3 Principle

Determination of the abrasion resistance of the glaze of tiles by rotation of an abrasive load on the surface and assessment of the wear by means of visual comparison of abraded test specimens and non-abraded tiles.

4 Abrasive load

The total load on each test specimen shall consist of

70,0 g of steel balls of diameter 5 mm;
52,5 g of steel balls of diameter 3 mm;
43,75 g of stell balls of diameter 2 mm;
8,75 g of steel balls of diameter 1 mm;
3,0 g of white fused aluminium oxide of grain size F 80 according to ISO 8486;
20 ml of deionized or distilled water.

1) To be published. (Revision of ISO 8486:1986)