

# SLOVENSKI STANDARD SIST ISO 10545-1:1996

01-januar-1996

# Keramične ploščice - 1. del: Vzorčenje in osnove za sprejem

Ceramic tiles -- Part 1: Sampling and basis for acceptance

Carreaux et dalles céramiques -- Partie 1: Échantillonnage et conditions de réception

### (standards.iteh.ai) Ta slovenski standard je istoveten z: ISO 10545-1:1995

|                           | SIST ISO 10545-1:1996<br>https://standards.iteh.ai/catalog/standards/sist/168bd244-54eb-448c-9a5a-<br>0f13f7aa5c1d/sist-iso-10545-1-1996 |               |
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# INTERNATIONAL STANDARD

**ISO** 10545-1

First edition 1995-11-15

# Ceramic tiles —

# Part 1:

iTeh Standard basis for acceptance

### (standards.iteh.ai) Carreaux et dalles céramiques –

Partie<u>S13 Échantilloñnag@(et</u> conditions de réception https://standards.iteh.ai/catalog/standards/sist/168bd244-54eb-448c-9a5a-0f13f7aa5c1d/sist-iso-10545-1-1996



Reference number ISO 10545-1:1995(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 VIEW a vote.

International Standard ISO 10545-1 was prepared by Technical Committee ISO/TC 189, *Ceramic tile.* 

### <u>SIST ISO 10545-1:1996</u>

ISO 10545 consists of the following parts, it that a the general stille Ceranic 54eb-448c-9a5atiles: 0f13f7aa5c1d/sist-iso-10545-1-1996

- 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
- Part 8: Determination of linear thermal expansion

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- 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

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### SIST ISO 10545-1:1996

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# Ceramic tiles —

Part 1: Sampling and basis for acceptance

#### 1 Scope

This part of ISO 10545 specifies rules for batching, sampling, inspection and acceptance/rejection of ceramic tiles.

#### Definitions 2

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(standards.iteh.ai) The number of tiles to be tested varies for each For the purposes of this part of ISO 10545, the folproperty (see table 1). SIST ISO 10545lowing definitions apply.

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2.1 order: Quantity of tiles ordered at00ne7time.dAnt-iso-10445-Constitution of inspection lots order may consist of one or more consignments.

2.2 consignment: Quantity of tiles delivered during a period of 2 days.

2.3 homogeneous (sub)consignment: (Sub) consignment that consists of tiles from one manufacturer, produced under conditions and with properties that are presumed uniform.

2.4 inspection lot: Quantity of tiles submitted for inspection manufactured by one manufacturer under conditions and with properties that are presumed uniform.

2.5 sample: Specified number of tiles taken from an inspection lot.

2.6 sample size: Number of tiles to be tested for each property.

2.7 requirement: Required characteristic as specified for the property in the relevant product standard.

2.8 non-conforming unit: Tile that does not meet the requirement for the property concerned.

#### **Principle** 3

This part of ISO 10545 provides for a sampling inspection system with a double sampling plan, partly for the method of inspection by attributes (individual values) and partly for a method of inspection by average values (variables).

An inspection lot may consist of one or more homogeneous consignments or subconsignments.

Any consignment which is not homogeneous shall be divided into subconsignments which are assumed to be homogeneous and which may then constitute inspection lots.

If non-homogeneity is not relevant to the properties to be tested, by agreement between the supplier and consumer, the consignment can be treated as homogeneous.

NOTE 1 For example, a consignment of tiles, of the same type with different glazes, can be homogeneous with regard to dimensions and water absorption and non-homogeneous with regard to surface quality. In the same way, accessories which differ only in shape from the remaining tiles in the sample may be considered homogeneous with respect to the other properties.

#### 5 Extent of the inspection

The choice of properties to be considered for inspection shall be subject to agreement between the supplier and consumer and may depend on the size of the inspection lot.

NOTE 2 In principle, a complete range of tests shall only be executed for inspection lots of more than 5 000  $m^2$  of tiles. Testing is usually not considered to be necessary for inspection lots of less than 1 000  $m^2$  of tiles.

The number of inspection lots to be drawn for testing shall be subject to agreement between the parties concerned.

### 6 Sampling

**6.1** The sampling location shall be subject to agreement between the supplier and consumer.

**6.2** One or more representatives of each party concerned may be present at the time the sample is taken.

Samples shall be taken at random from the inspection lot.

Two samples shall be taken. It may not be necessary DA lect to test the second sample.

Each sample shall be packed separately and shall be sealed and marked as agreed by the parties concerned. SIST ISO 10545-10406 with those tests which, at the time of inhttps://standards.iteh.ai/catalog/standards.ist. Tool of the second sample taken (see 8.1.3) shall only be inspected in accordance with those tests which, at the time of in-

**6.3** For each property, the number of tiles to be 1d/sist tested is indicated as "sample size" in column 2 of table 1.

### 7 Inspection

**7.1** The tiles in the sample shall be tested according to the test methods specified in the relevant product standards.

**7.2** The test results shall be evaluated according to clause 8.

# 8 Determination of acceptability of inspection lots

### 8.1 Inspection by attributes

**8.1.1** When the number of non-conforming units found in the initial sample is less than or equal to the acceptance number  $Ac_1$  indicated in column 3 of table 1, the inspection lot from which the sample was drawn shall be considered acceptable.

**8.1.2** When the number of non-conforming units found in the initial sample is greater than or equal to the rejection number  $\text{Re}_1$  indicated in column 4 of table 1, this justifies rejection of the inspection lot.

**8.1.3** When the number of non-conforming units found in the initial sample lies between the acceptance number and the rejection number (columns 3 and 4 of table 1), a second sample of the same size as the initial sample shall be taken and tested.

**8.1.4** The number of non-conforming units found in the initial and second samples shall be totalled.

**8.1.5** If the total number of non-conforming units is less than or equal to the acceptance number  $Ac_2$  indicated in column 5 of table 1, the inspection lot shall be considered acceptable.

**8.1.6** If the total number of non-conforming units is greater than or equal to the second rejection number  $\text{Re}_2$  indicated in column 6 of table 1, this justifies rejection of the inspection lot.

spectron of the initial sample, gave numbers of nonconforming units between the acceptance number  $Ac_1$  and the rejection number  $Re_1$ .

### 8.2 Inspection by the average value

**8.2.1** If the average value  $(\bar{x}_1)$  of the test results of the initial sample meets the requirements, the inspection lot shall be considered acceptable (column 7 of table 1).

**8.2.2** If the average value  $\bar{x}_1$  does not meet the requirements, a second sample of the same size as the initial sample shall be taken (column 8 of table 1).

**8.2.3** If the average value  $(\bar{x}_2)$  of the test results of the combined initial and second samples meets the requirements, the inspection lot shall be considered acceptable (column 9 of table 1).

**8.2.4** If the average value  $\bar{x}_2$  does not meet the requirements, this justifies rejection of the inspection lot (column 10 of table 1).

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### 9 Acceptance report

The acceptance report shall include the following information:

a) reference to this part of ISO 10545;

- b) a description of the tiles;
- c) the sampling procedure;
- d) the constitution of the inspection lot;
- e) the determination of acceptability for each of the properties tested.

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