
Ceramic tiles —

Part 20:

**Determination of deflection of ceramic
tiles for calculating their radius of
curvature**

Carreaux et dalles céramiques —

*Partie 20: Détermination de la flèche des carreaux et dalles
céramiques pour calculer leur rayon de courbure*

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 189, *Ceramic tile*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 67, *Ceramic tiles*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 10545 series can be found on the ISO website.

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Ceramic tiles —

Part 20:

Determination of deflection of ceramic tiles for calculating their radius of curvature

1 Scope

This document specifies a method for measuring the deflection of ceramic tiles for calculating their radius of curvature.

NOTE ISO 13006 provides property requirements for tiles and other useful information on these products.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10545-4:2019, *Ceramic tiles — Part 4: Determination of modulus of rupture and breaking strength*

ISO 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

breaking load

F

force necessary to cause the test specimen to break, as read from the pressure gauge

Note 1 to entry: See [Figure 1](#).

3.2

deflection at breaking

Z

deflection of tile at the breaking point under load

Note 1 to entry: See [Figure 1](#).

3.3

curvature radius

r

radius of the circumference that approximates the curve that is determined when the tile is deflected at breaking