

STN	Jemná keramika (špeciálna keramika, špeciálna technická keramika) Stanovenie absolútnej hustoty keramických práškov pyknometrom (ISO 18753: 2017)	STN EN ISO 18753 72 7552
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Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of absolute density of ceramic powders by pycnometer (ISO 18753:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/18

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EUROPEAN STANDARD

EN ISO 18753

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English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of absolute density of ceramic powders by pycnometer (ISO 18753:2017)

Céramiques techniques - Détermination de la masse volumique absolue des poudres céramiques à l'aide d'un pycnomètre (ISO 18753:2017)

Hochleistungskeramik - Bestimmung der absoluten Dichte keramischer Pulver mit einem Pycnometer (ISO 18753:2017)

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European foreword

This document (EN ISO 18753:2017) has been prepared by Technical Committee ISO/TC 206 "Fine ceramics" in collaboration with Technical Committee CEN/TC 184 "Ergonomics" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by March 2018 and conflicting national standards shall be withdrawn at the latest by March 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 18753:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 18753:2017 has been approved by CEN as EN ISO 18753:2017 without any modification.

**Fine ceramics (advanced ceramics,
advanced technical ceramics) —
Determination of absolute density of
ceramic powders by pycnometer**

*Céramiques techniques — Détermination de la masse volumique
absolue des poudres céramiques à l'aide d'un pycnomètre*





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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.

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 206, *Fine ceramics*.

This second edition cancels and replaces the first edition (ISO 18753:2004), which has been technically revised.

The main changes compared to the previous edition are as follows:

- [Clause 6](#) has been modified to include changes in list items d) and g) and to add a paragraph discussing factors affecting accuracy of test results;
- [Table A.1](#) has been modified with new reference data for the absolute density of distilled water^[1].

Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of absolute density of ceramic powders by pycnometer

1 Scope

This document specifies a method for determining the absolute particle density of fine ceramic powders or sintered parts using liquid pycnometry.

NOTE Other pycnometer methods like gas pycnometers (e.g. helium pycnometer), where a gas is used as media, also exist.

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 758, *Liquid chemical products for industrial use — Determination of density at 20 °C*

ISO 3507, *Laboratory glassware — Pycnometers*

ISO 6353-2, *Reagents for chemical analysis — Part 2: Specifications — First series*

ISO 6353-3, *Reagents for chemical analysis — Part 3: Specifications — Second series*

ISO 8213, *Chemical products for industrial use — Sampling techniques — Solid chemical products in the form of particles varying from powders to coarse lumps*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

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