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**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*



Reference number
ISO 18753:2004(E)

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Foreword

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ISO 18753 was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

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

1 Scope

This International Standard specifies a method for determining the particle density of fine ceramic powders using liquid pycnometry.

2 Normative references

The following referenced documents are indispensable for the application 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*

3 Terms and definitions

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

3.1

particle density

density of an individual particle of powder

NOTE When an enclosed space occurs inside the particle, the space is considered to be part of the individual particle.

3.2

pycnometry

method of measuring particle density using a pycnometer

4 Preparation of measurement

4.1 Sampling

A representative sample for analysis shall be taken in accordance with ISO 8213.