ICS 81.060.30 SLOVENSKÁ TECHNICKÁ NORMA Apríl 2023

STN	**Jemná keramika (špeciálna keramika, špeciálna technická keramika) Stanovenie zhutňovacích vlastností keramických práškov prirodzeným spekaním (ISO 21821: 2019)**	**STN EN ISO 21821** 72 7502

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of densification properties of ceramic powders on natural sintering (ISO 21821:2019)

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. 03/23

Obsahuje: EN ISO 21821:2022, ISO 21821:2019

Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21821

November 2022

ICS 81.060.30

Supersedes EN 725-11:2006

English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of densification properties of ceramic powders on natural sintering (ISO 21821:2019)

Céramiques techniques (céramiques avancées, céramiques techniques avancées) - Détermination des propriétés de densification des poudres céramiques lors d'un frittage naturel (ISO 21821:2019)

Hochleistungskeramik - Bestimmung des Verdichtungsverhaltens keramischer Pulver beim natürlichen Sinterbrand (ISO 21821:2019)

This European Standard was approved by CEN on 21 November 2022.

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European foreword

The text of ISO 21821:2019 has been prepared by Technical Committee ISO/TC 206 "Fine ceramics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21821:2022 by Technical Committee CEN/TC 184 "Advanced technical ceramics" 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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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.

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The text of ISO 21821:2019 has been approved by CEN as EN ISO 21821:2022 without any modification.

INTERNATIONAL STANDARD

ISO 21821

First edition
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Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of densification properties of ceramic powders on natural sintering

Céramiques techniques (céramiques avancées, céramiques techniques avancées) — Détermination des propriétés de densification des poudres céramiques lors d'un frittage naturel

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Foreword

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

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INTERNATIONAL STANDARD ISO 21821:2019(E)

Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of densification properties of ceramic powders on natural sintering

1 Scope

This document specifies the test method to determine the extent to which ceramic powder compacts made of granulated or ungranulated ceramic powders are densified, when they are sintered at a high temperature without the application of any external pressure or external densification force. The test method is applicable to pure oxides, mixtures of oxides and solid solutions, and is also applicable to non-oxides (e.g. carbides, nitrides) that can be sintered under vacuum or constant gas pressure (1 bar or less) to prevent oxidation or decomposition. The test method is not applicable to ceramics that can only be sintered using pressure-assisted sintering techniques such as hot pressing (HP), hot isostatic pressing (HIP), gas pressure sintering (GPS) or spark plasma sintering (SPS). Inorganic sintering additives can be used where their presence is reported.

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 3611, *Geometrical product specifications (GPS) — Dimensional measuring equipment: Micrometers for external measurements — Design and metrological characteristics*

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

ISO 17172, *Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of compaction properties of ceramic powders*