SLOVENSKI STANDARD
SIST EN ISO 14544:2016

01-junij-2016

Nadomešča:
SIST EN 12290:2005
SIST EN 12291:2004

Fina keramika (sodobna keramika, sodobna tehnična keramika) - Mehanske lastnosti keramičnih kompozitov pri visoki temperaturi - Ugotavljanje lastnosti pri stiskanju (ISO 14544:2013)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Mechanical properties of ceramic composites at high temperature - Determination of compression properties (ISO 14544:2013)

Hochleistungskeramik - Mechanische Eigenschaften von keramischen Verbundwerkstoffen bei hoher Temperatur - Bestimmung der Eigenschaften unter Druck (ISO 14544:2013)

Céramiques techniques - Propriétés mécaniques des céramiques composites à haute température - Détermination des caractéristiques en compression (ISO 14544:2013)

Ta slovenski standard je istoveten z: **EN ISO 14544:2016**

ICS:

81.060.30	Sodobna keramika	Advanced ceramics

SIST EN ISO 14544:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14544

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English Version

Fine ceramics (advanced ceramics, advanced technical ceramics) - Mechanical properties of ceramic composites at high temperature - Determination of compression properties (ISO 14544:2013)

Céramiques techniques - Propriétés mécaniques des céramiques composites à haute température - Détermination des caractéristiques en compression (ISO 14544:2013)

Hochleistungskeramik - Mechanische Eigenschaften von keramischen Verbundwerkstoffen bei hoher Temperatur - Bestimmung der Eigenschaften unter Druck (ISO 14544:2013)

This European Standard was approved by CEN on 18 March 2016.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of ISO 14544:2013 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 14544:2016 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of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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Endorsement notice

The text of ISO 14544:2013 has been approved by CEN as EN ISO 14544:2016 without any modification.

INTERNATIONAL STANDARD

ISO 14544

First edition
2013-07-01

Fine ceramics (advanced ceramics, advanced technical ceramics) — Mechanical properties of ceramic composites at high temperature — Determination of compression properties

Céramiques techniques — Propriétés mécaniques des céramiques composites à haute température — Détermination des caractéristiques en compression

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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. www.iso.org/directives

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The committee responsible for this document is ISO/TC 206, *Fine ceramics*.

Fine ceramics (advanced ceramics, advanced technical ceramics) — Mechanical properties of ceramic composites at high temperature — Determination of compression properties

1 Scope

This International Standard specifies the conditions for determination of compression properties of ceramic matrix composite materials with continuous fibre reinforcement for temperatures up to 2 000 °C.

This International Standard applies to all ceramic matrix composites with a continuous fibre reinforcement, unidirectional (1D), bidirectional (2D), and tridirectional (xD, with $2 < x \leq 3$), loaded along one principal axis of reinforcement.

Two types of compression are distinguished:

a) compression between platens;

b) compression using grips.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

EN 10002-4, *Metallic materials — Tensile test — Part 4: Verification of extensometers used in uniaxial testing*

CEN/TS 15867:2009, *Advanced technical ceramics — Ceramic composites — Guide to the determination of the degree of misalignment in unixial mechanical tests*

IEC 60584-1:1995, *Thermocouples — Part 1: Reference tables*

IEC 60584-2:1982, *Thermocouples — Part 2: Tolerances*

IEC 60584-2:1982, *Amendment 1*:1989

3 Terms and definitions

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

3.1
test temperature
T
temperature of the test piece at the centre of the gauge length