

SLOVENSKI STANDARD

SIST EN ISO 19634:2021

01-september-2021

Nadomešča:

SIST-TP CEN/TR 13233:2007

SIST-TP CEN/TR 13233:2007/AC:2008

Fina keramika (sodobna keramika, sodobna tehnična keramika) - Keramični kompoziti - Oznake in simboli (ISO 19634:2017)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Ceramic composites - Notations and symbols (ISO 19634:2017)

Hochleistungskeramik - Keramische Verbundwerkstoffe - Bezeichnungen und Formelzeichen (ISO 19634:2017)

Céramiques techniques - Céramiques composites - Notations et symboles (ISO 19634:2017)

Ta slovenski standard je istoveten z: EN ISO 19634:2021

ICS:

| | | |
|-----------|------------------|-------------------|
| 01.075 | Simboli za znake | Character symbols |
| 81.060.30 | Sodobna keramika | Advanced ceramics |

SIST EN ISO 19634:2021

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19634:2021

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 19634

July 2021

ICS 81.060.30

Supersedes CEN/TR 13233:2007

English Version

**Fine ceramics (advanced ceramics, advanced technical ceramics) - Ceramic composites - Notations and symbols
(ISO 19634:2017)**

Céramiques techniques - Céramiques composites -
Notations et symboles (ISO 19634:2017)

Hochleistungskeramik - Keramische
Verbundwerkstoffe - Benennungen und Formelzeichen
(ISO 19634:2017)

This European Standard was approved by CEN on 11 July 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

iTeh STANDARD PREVIEW

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

| Contents | Page |
|------------------------|------|
| European foreword..... | 3 |

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19634:2021
<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>

European foreword

The text of ISO 19634:2017 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 19634:2021 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 January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

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 CEN/TR 13233:2007.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

SIST EN ISO 19634:2021

<https://standards.iteh.ai/c/en/iso-19634-2021/6243c82eb595/sist-en-iso-19634-2021>

Endorsement notice

The text of ISO 19634:2017 has been approved by CEN as EN ISO 19634:2021 without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 19634:2021

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>

INTERNATIONAL STANDARD

ISO
19634

First edition
2017-10

Fine ceramics (advanced ceramics, advanced technical ceramics) — Ceramic composites — Notations and symbols

*Céramiques techniques — Céramiques composites — Notations et
symboles*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 19634:2021](https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021)

[https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-
6243c82eb595/sist-en-iso-19634-2021](https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021)



Reference number
ISO 19634:2017(E)

© ISO 2017

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19634:2021

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

| | Page |
|--------------------------------------|-----------|
| Foreword | iv |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Symbols | 4 |
| 5 Significance and use | 12 |
| 5.1 Significance | 12 |
| 5.2 Use | 12 |
| Bibliography | 13 |

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19634:2021

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>

ISO 19634:2017(E)

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html. (standards.iteh.ai)

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

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-6243c82eb595/sist-en-iso-19634-2021>

Fine ceramics (advanced ceramics, advanced technical ceramics) — Ceramic composites — Notations and symbols

1 Scope

This document defines the symbols to be used to represent physical, mechanical and thermal characteristics, as determined by methods described in relevant ISO publications, for ceramic matrix composites. It is aimed at avoiding confusion in reporting measurements and characteristics of products.

Where possible, the definitions are in accordance with the relevant parts of ISO 80000. In addition, the symbols used in undertaking measurements of these characteristics are also defined.

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 80000-4, *Quantities and units — Part 4: Mechanics*

ISO 80000-5, *Quantities and units — Part 5: Thermodynamics*

3 Terms and definitions

SIST EN ISO 19634:2021

<https://standards.iteh.ai/catalog/standards/sist/8f26e072-daa9-4d07-8b64-b240e20053a0/iso-19634>

For the purposes of this document, the terms and definitions given in ISO 80000-4 and ISO 80000-5 and the following apply.

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

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

3.1

ceramic matrix composite

ceramic, carbon or glass matrix containing reinforcement distributed in one or more spatial directions

Note 1 to entry: Composites with continuous reinforcements constitute a specific class of these materials. Several subclasses of ceramic matrix composites with continuous reinforcements can be distinguished.

3.2

nomenclature

The symbol F/I/M applies usually to ceramic matrix composites:

- F indicates the chemical nature of fibrous reinforcement: C stands for carbon, SiC for silicon carbide, Al₂O₃ for alumina, etc.
- I indicates the chemical nature of fibre/matrix interphase: C stands for carbon, BN for boron nitride, LaPO₄ for monazite, etc.
- M indicates the chemical nature of matrix: C for carbon, SiC for silicon carbide, Al₂O₃ for alumina.

EXAMPLE 1 A ceramic matrix composite composed of a silicon carbide fibre, a carbon interphase and a silicon carbide matrix is denoted by SiC/C/SiC.