SLOVENSKI STANDARD
SIST EN ISO 4803:2023

01-maj-2023

Laboratorijska steklovina - Borosilikatne steklene cevi (ISO 4803:2021)

Laboratory glassware - Borosilicate glass tubing (ISO 4803:2021)

Laborgeräte aus Glas - Rohre aus Borosilicatglas (ISO 4803:2021)

Verrerie de laboratoire - Tubes en verre borosilicaté (ISO 4803:2021)

Ta slovenski standard je istoveten z: **EN ISO 4803:2023**

ICS:

71.040.20	Laboratorijska posoda in aparati	Laboratory ware and related apparatus

SIST EN ISO 4803:2023 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 4803

March 2023

ICS 71.040.20

English Version

Laboratory glassware - Borosilicate glass tubing (ISO 4803:2021)

Verrerie de laboratoire - Tubes en verre borosilicaté (ISO 4803:2021)

Laborgeräte aus Glas - Rohre aus Borosilicatglas (ISO 4803:2021)

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

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European foreword

The text of ISO 4803:2021 has been prepared by Technical Committee ISO/TC 48 "Laboratory equipment" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 4803:2023 by Technical Committee CEN/TC 332 "Laboratory equipment" 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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

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Endorsement notice

The text of ISO 4803:2021 has been approved by CEN as EN ISO 4803:2023 without any modification.

INTERNATIONAL STANDARD

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Laboratory glassware — Borosilicate glass tubing

Verrerie de laboratoire — Tubes en verre borosilicaté

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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.

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 48, *Laboratory equipment*.

This second edition cancels and replaces the first edition (ISO 4803:1978), which has been technically revised.

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

— update of the dimensions and tolerances;

— inclusion of a comprehensive and precise description of the mentioned quality characteristics and determination methods.

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Introduction

Borosilicate glass is a class of glass, which is classified in ISO 12775. Borosilicate glasses show properties such as a very high hydrolytic resistance, a very high acid resistance and a medium alkali resistance. Borosilicate glasses can contain alkali earths or be free of alkali earths. The alkali-earth free borosilicate glasses have a very low coefficient of mean linear thermal expansion alpha of $3{,}3 \times 10^{-6}\ K^{-1}$ (in the temperature range from 20 °C to 300 °C). They were first developed in 1887 and constitute since then an industrial standard, which is reflected by the standardization of the composition, chemical and physical properties of the material in ISO 3585.

These special characteristics make this glass preferable for technical purposes with high chemical and thermo shock resistance. The field of application is mainly laboratories for chemical, pharmaceutical and food industries as well as other technical applications where these properties are needed.