



SLOVENSKI STANDARD SIST EN ISO 21012:2024

01-december-2024

Nadomešča:
SIST EN ISO 21012:2019

Kriogene posode - Gibke cevi (ISO 21012:2024)

Cryogenic vessels - Hoses (ISO 21012:2024)

Kryo-Behälter - Schlauchleitungen (ISO 21012:2024)

Réipients cryogéniques - Tuyaux flexibles (ISO 21012:2024)

Ta slovenski standard je istoveten z: **EN ISO 21012:2024**

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23.020.40 Proti mrazu odporne posode (kriogenske posode) Cryogenic vessels

83.140.40 Gumene cevi Hoses

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EUROPEAN STANDARD

EN ISO 21012

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 21012:2018

English Version

Cryogenic vessels - Hoses (ISO 21012:2024)

Récipients cryogéniques - Tuyaux flexibles (ISO
21012:2024)

Kryo-Behälter - Schlauchleitungen (ISO 21012:2024)

This European Standard was approved by CEN on 29 March 2024.

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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.

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

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

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European foreword

This document (EN ISO 21012:2024) has been prepared by Technical Committee ISO/TC 220 "Cryogenic vessels" in collaboration with Technical Committee CEN/TC 268 "Cryogenic vessels and specific hydrogen technologies applications" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

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 EN ISO 21012:2018.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. 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, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 21012:2024 has been approved by CEN as EN ISO 21012:2024 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential requirements of Directive 2014/68/EU (Pressure Equipment Directive) aimed to be covered

This European Standard has been prepared under Commission Implementing Decision C(2024)1241 of 1.3.2024 on a standardisation request to the European Committee for Standardization and the European Committee for Electrotechnical Standardization as regards pressure equipment and assemblies in support of Directive 2014/68/EU of the European Parliament and of the Council (M/601) to provide one voluntary means of conforming to essential requirements of 2014/68/EU (Pressure equipment Directive).

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2014/68/EU (Pressure Equipment Directive)

| Essential Requirements of Directive 2014/68/EU | Clause(s)/sub-clause(s) of this EN | Remarks/Notes |
|--|------------------------------------|---|
| 2.2.1 | 1, 4.1, 4.2, 4.4 | Design |
| 2.2.3 | 4.1, 4.4.1, 5.2.4 | |
| 2.2.4 | 5 | Clause 5 covers the sample tests which is representative of the equipment, except the last sentence of subclause 5.2.5. |
| 4.1 | 4.2, 4.4, Table E.1 | Table E.1 is based on the approved European Materials nomenclature. When it comes to bending tests, the test shall be done under specified operating conditions. |
| 4.2 | 4.2, Table E.1 | |
| 4.3 | 4.2 | Clause 4.2 requirement 3) covers the material conformity. |
| 3.2.2 | 1 st paragraph of 5.2.4 | Proof test |
| 3.3 | 7 | Marking |

Table ZA.2 — Applicable Standards to confer presumption of conformity as described in this Annex ZA

| Reference in Clause 2 | International Standard Edition | Title | Corresponding European Standard Edition |
|-----------------------|--------------------------------|--|---|
| ISO 7369 | ISO 7369:2020 | <i>Pipework — Metal hoses and hose assemblies — Vocabulary</i> | EN ISO 7369:2020 |
| ISO 10806 | ISO 10806:2003 | <i>Pipework — Fittings for corrugated metal hoses</i> | EN ISO 10806:2003 |
| ISO 21010 | ISO 21010:2017 | <i>Cryogenic vessels — Gas/material compatibility</i> | EN 1797:2001 |
| ISO 21028-1 | ISO 21028-1:2016 | <i>Cryogenic vessels — Toughness requirements for materials at cryogenic temperature — Part 1: Temperatures below -80 °C</i> | EN ISO 21028-1:2016 |
| ISO 23208 | ISO 23208:2017 | <i>Cryogenic vessels — Cleanliness for cryogenic service</i> | EN ISO 23208:2019 |

The documents listed in the Column 1 of Table ZA.2, in whole or in part, are normatively referenced in this document, i.e. are indispensable for its application. The achievement of the presumption of conformity is subject to the application of the edition of Standards as listed in Column 4 or, if no European Standard Edition exists, the International Standard Edition given in Column 2 of Table ZA.2.

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.



International Standard

ISO 21012

Cryogenic vessels — Hoses

Réceptacles cryogéniques — Tuyaux flexibles

**Third edition
2024-08**

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