



# SLOVENSKI STANDARD SIST EN ISO 11114-2:2022

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Nadomešča:

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**Plinske jeklenke - Združljivost materialov za ventil in jeklenko s plinom - 2. del:  
Nekovinski materiali (ISO 11114-2:2021)**

Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 2:  
Non-metallic materials (ISO 11114-2:2021)

Gasflaschen - Verträglichkeit von Werkstoffen für Gasflaschen und Ventile mit den in  
Berührung kommenden Gasen - Teil 2: Nichtmetallische Werkstoffe (ISO 11114-2:2021)

Bouteilles à gaz - Compatibilité des matériaux des bouteilles et des robinets avec les  
contenus gazeux - Partie 2: Matériaux non métalliques (ISO 11114-2:2021)

**Ta slovenski standard je istoveten z: EN ISO 11114-2:2021**

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**ICS:**

23.020.35 Plinske jeklenke Gas cylinders

**SIST EN ISO 11114-2:2022 en,fr,de**

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**EN ISO 11114-2**

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Supersedes EN ISO 11114-2:2013

English Version

## Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 2: Non-metallic materials (ISO 11114-2:2021)

Bouteilles à gaz - Compatibilité des matériaux des bouteilles et des robinets avec les contenus gazeux - Partie 2: Matériaux non métalliques (ISO 11114-2:2021)

Gasflaschen - Verträglichkeit von Werkstoffen für Gasflaschen und Ventile mit den in Berührung kommenden Gasen - Teil 2: Nichtmetallische Werkstoffe (ISO 11114-2:2021)

This European Standard was approved by CEN on 24 October 2021.

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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 11114-2:2021) has been prepared by Technical Committee ISO/TC 58 "Gas cylinders" in collaboration with Technical Committee CEN/TC 23 "Transportable gas cylinders" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.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 EN ISO 11114-2:2013.

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, Turkey and the United Kingdom.

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INTERNATIONAL  
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ISO  
11114-2

Third edition  
2021-10

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**Gas cylinders — Compatibility of  
cylinder and valve materials with gas  
contents —**

**Part 2:  
Non-metallic materials**

**iTeh STANDARD PREVIEW**  
*Bouteilles à gaz — Compatibilité des matériaux des bouteilles et des  
robinets avec les contenus gazeux —  
Partie 2: Matériaux non métalliques*  
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## ISO 11114-2:2021(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](http://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](http://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 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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 23, *Transportable gas cylinders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 11114-2:2013), which has been technically revised. The main changes compared with the previous edition are as follows:

- new materials were added in [Table 1](#);
- [Table 2](#), dedicated to the compatibility for liners, was added.

A list of all parts in the ISO 11114 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

This document provides guidance on the compatibility of non-metallic materials used for gas cylinders and gas cylinder valves with the gas contents of the cylinder. Compatibility of metallic materials is covered in ISO 11114-1.

Non-metallic materials are very often used for the construction of gas cylinder valves as seals, e.g. O-ring, gland packing, seats or as lubrication products to avoid friction. They are also commonly used to ensure sealing of the valve/cylinder connection. For gas cylinders, they are sometimes used as an internal coating or as a liner for composite materials.

Non-metallic materials not in contact with the gas are not covered by this document.

This document is based on current international experience and knowledge. Some data are derived from experience involving a mixture of the gas concerned with a dilutant, where no data for single component gases were available.

This document has been written so that it is suitable to be referenced in the UN Model Regulations<sup>[Z]</sup>.

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