

SLOVENSKI STANDARD

oSIST prEN ISO 16486-1:2023

01-april-2023

Nadomešča:

SIST EN ISO 16486-1:2020

Cevni sistemi iz polimernih materialov za oskrbo s plinastimi gorivi - Cevni sistemi iz nemehčanega poliamida (PA-U) z zvari in mehanskimi spoji - 1. del: Splošno (ISO/DIS 16486-1:2023)

Plastics piping systems for the supply of gaseous fuels - Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing - Part 1: General (ISO/DIS 16486-1:2023)

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Kunststoff-Rohrleitungssysteme für die Gasversorgung - Rohrleitungssysteme aus weichmacherfreiem Polyamid (PA-U) mit Schweißverbindungen und mechanischen Verbindungen - Teil 1: Allgemeines (ISO/DIS 16486-1:2023)

8084-4fa8-9bc8-80cf7b85bde9/osist-pren-iso-16486-1-2023

Systèmes de canalisations en matières plastiques pour la distribution de combustibles gazeux - Systèmes de canalisations en polyamide non plastifié (PA-U) avec assemblages par soudage et assemblages mécaniques - Partie 1: Généralités (ISO/DIS 16486-1:2023)

Ta slovenski standard je istoveten z: prEN ISO 16486-1

ICS:

75.200	Oprema za skladiščenje nafte, naftnih proizvodov in zemeljskega plina	Petroleum products and natural gas handling equipment
83.140.30	Polimerne cevi in fittingi za snovi, ki niso tekočine	Plastics pipes and fittings for non fluid use

oSIST prEN ISO 16486-1:2023

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN ISO 16486-1

January 2023

ICS 75.200; 83.140.30

Will supersede EN ISO 16486-1:2020

English Version

**Plastics piping systems for the supply of gaseous fuels -
Unplasticized polyamide (PA-U) piping systems with
fusion jointing and mechanical jointing - Part 1: General
(ISO/DIS 16486-1:2023)**

Systèmes de canalisations en matières plastiques pour
la distribution de combustibles gazeux - Systèmes de
canalisations en polyamide non plastifié (PA-U) avec
assemblages par soudage et assemblages mécaniques -
Partie 1: Généralités (ISO/DIS 16486-1:2023)

Kunststoff-Rohrleitungssysteme für die Gasversorgung
- Rohrleitungssysteme aus weichmacherfreiem
Polyamid (PA-U) mit Schweißverbindungen und
mechanischen Verbindungen - Teil 1: Allgemeines
(ISO/DIS 16486-1:2023)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 155.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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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 (prEN ISO 16486-1:2023) has been prepared by Technical Committee ISO/TC 138 “Plastics pipes, fittings and valves for the transport of fluids” in collaboration with Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems” the secretariat of which is held by NEN.

This document is currently submitted to the parallel Enquiry.

This document will supersede EN ISO 16486-1:2020.

Endorsement notice

The text of ISO/DIS 16486-1:2023 has been approved by CEN as prEN ISO 16486-1:2023 without any modification.

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Annex (informative)

iTeh STANDARD PREVIEW (standards.iteh.ai) A-deviation

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN-CENELEC national member.

This European Standard does not fall under any Directive of the EU.

In the relevant CEN-CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

Country	Clause	Deviation
ITALY	§1 Scope	<p>According to Italian legislation concerning the safety of gas installation</p> <ul style="list-style-type: none"> - DM 16 April 2008 (DSO) prescribes that piping and components used in distribution system shall be in accordance with national standard UNI 9034 (pipes with MOP below 5 bar). In case of MOP greater than 5 bar DM 17 April 2008 shall be followed. <p>(Official Journal Italian Republic GU n. 107 of 8th May 2008 https://www.gazzettaufficiale.it/eli/id/2008/05/08/08A02871/sg)</p> <ul style="list-style-type: none"> - DM 17 April 2008 (TSO) prescribes that piping and components used in transmission system shall be made of steel (art. 3.1 of Technical Annex A to Decree). <p>(Official Journal Italian Republic GU n. 107 of 8th May 2008 https://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2008-05-08&atto.codiceRedazionale=08A02872&elenco30giorni=false)</p>

DRAFT INTERNATIONAL STANDARD

ISO/DIS 16486-1

ISO/TC 138/SC 4

Secretariat: NEN

Voting begins on:
2023-01-24Voting terminates on:
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Plastics piping systems for the supply of gaseous fuels — Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing —

Part 1: General

Systèmes de canalisations en matières plastiques pour la distribution de combustibles gazeux — Systèmes de canalisations en polyamide non plastifié (PA-U) avec assemblages par soudage et assemblages mécaniques —

Partie 1: Généralités

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ICS: 75.200; 83.140.30

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ISO/CEN PARALLEL PROCESSING



Reference number
ISO/DIS 16486-1:2023(E)

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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.

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).

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This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 4, *Plastics pipes and fittings for the supply of gaseous fuels*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, *Plastics piping systems and ducting systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 16486-1:2020), which has been technically revised.

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

- In [Table 1](#) the wrong old requirement for pigment or carbon black dispersion is substituted by new requirements with reference to ISO 18553 and the deletion of [Annex A](#).
- Reference will be made to the NWI ISO 8149 Unplasticized Polyamide (PA-U 180) pipes — Effect of time and temperature on the expected strength.
- Table note ^a in [Table 1](#) is only applicable for the carbon black content and not for all requirements, therefore this obvious failure has been corrected.
- In [Table D.2](#) and [Figure D.2](#) of informative [Annex D](#) permeation coefficients of methane for PA-U 11 are given and in [Table D.4](#) and [Figure D.4](#) of hydrogen for PA-U 11.

A list of all parts in the ISO 16486 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.

Introduction

This document specifies the general requirements for a piping system and its components made from unplasticized polyamide (PA-U), which are intended to be used for the supply of gaseous fuels.

Requirements and test methods for components of the piping system are specified in ISO 16486-2, ISO 16486-3, and ISO 16486-4.

Characteristics for fitness for purpose of the system and generic fusion parameters are covered in ISO 16486-5.

Recommended practice for installation is given in ISO 16486-6, which will not be implemented as a European Standard under the Vienna Agreement.

Assessment of conformity of the system is to form the subject of the future ISO/CD TS 16486-7¹⁾.

NOTE 1 Recommended practice for installation is also given in CEN/TS 12007-6, which has been prepared by Technical Committee CEN/TC 234, *Gas infrastructure*.

NOTE 2 A list of ASTM standards related to polyamide pipes and fittings for the supply of gas is given in the Bibliography^{[1][2][3][4]}.

Parts 1 (this document), 2, 3, 5 and 6 (and future Part 7) have been prepared by ISO/TC 138/SC 4. Part 4 has been prepared by ISO/TC 138/SC 7.

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1) ISO/CD TS 16486-7:2022 is under preparation.

