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**Gumene in polimerne cevi - Preskušanja upogljivosti pri temperaturah, nižjih od sobne (ISO 4672:1997)**

Rubber and plastics hoses - Sub-ambient temperature flexibility tests (ISO 4672:1997)

Gummi- und Kunststoffschläuche - Biegeprüfungen bei einer Temperatur unterhalb der Umgebungstemperatur (ISO 4672:1997)

Tuyaux en caoutchouc et en plastique - Essai de souplesse à température inférieure à l'ambiance (ISO 4672:1997)

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**Ta slovenski standard je istoveten z: EN ISO 4672:1999**

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**ICS:**

23.040.70      Gumene cevi in armature      Hoses and hose assemblies

**SIST EN ISO 4672:2000**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN ISO 4672

July 1999

ICS 23.040.70

Supersedes EN 24672:1993

English version

Rubber and plastics hoses - Sub-ambient temperature flexibility  
tests (ISO 4672:1997)

Tuyaux en caoutchouc et en plastique - Essai de souplesse  
à température inférieure à l'ambiance (ISO 4672:1997)

Gummi- und Kunststoffschläuche - Biegeprüfungen bei  
einer Temperatur unterhalb der Umgebungstemperatur  
(ISO 4672:1997)

This European Standard was approved by CEN on 25 June 1999.

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 Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of the International Standard from Technical Committee ISO/TC 45 "Rubber and rubber products" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 218 "Rubber and plastics hoses and hose assemblies", the secretariat of which is held by BSI.

This European Standard replaces EN 24672:1993.

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 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Endorsement notice

The text of the International Standard ~~ISO 4672:1997~~ has been approved by CEN as a European Standard without any modification.

~~standards/sist/41869614-2858-430a-bd24-8baa13afa0/sist-en-iso-4672-2000~~

NOTE: Normative references to International Standards are listed in annex ZA (normative).

**Annex ZA** (normative)**Normative references to international publications with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 1402	1994	Rubber and plastics hoses and hose assemblies - Hydrostatic testing	EN ISO 1402	1996

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# INTERNATIONAL STANDARD

**ISO  
4672**

Third edition  
1997-03-01

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## Rubber and plastics hoses — Sub-ambient temperature flexibility tests

*Tuyaux en caoutchouc et en plastique — Essais de souplesse à  
température inférieure à l'ambiante*

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bd24-8baa13afaf0/sist-en-iso-4672-2000](https://standards.iteh.ai/catalog/standards/sist/41869614-2858-430a-bd24-8baa13afaf0/sist-en-iso-4672-2000)



Reference number  
ISO 4672:1997(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4672 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 1, *Hoses (rubber and plastics)*.

This third edition cancels and replaces the second edition (ISO 4672:1988), which has been technically revised.

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# Rubber and plastics hoses — Sub-ambient temperature flexibility tests

## 1 Scope

This International Standard specifies two methods for assessing whether a rubber or plastics hose retains adequate flexibility at sub-ambient temperatures.

Method A is applicable to non-collapsible hose with a nominal bore up to and including 25. It measures the increase in stiffness compared to the flexibility at a standard laboratory temperature.

Method B is a simpler, qualitative method suitable for control testing and is applicable to hose with a nominal bore up to and including 100.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 471 : 1995 Rubber - Temperatures, humidities and times for conditioning and testing.

ISO 1402 : 1994 Rubber and plastics hoses and hose assemblies - Hydrostatic testing.

ISO 3383 : 1985 Rubber - General directions for achieving elevated or subnormal temperatures for test purposes.

## 3 Method A - Sub-ambient temperature stiffness test

### 3.1 Apparatus (see figure 1)

3.1.1 **Torque wheel**, having a diameter equal to twice the minimum bend radius specified for the hose, provided with equipment for holding the hose tangential to the wheel, a suitable device to bend the hose around the wheel, and a strain gauge and graphical recorder to measure the torque with an accuracy of  $\pm 3\%$ . If the minimum bend radius is not specified the torque wheel shall have a diameter equal to 12 times the nominal bore of the hose.