
**Rubber hoses and hose assemblies for
transferring anhydrous ammonia —
Specification**

*Tuyaux et flexibles en caoutchouc pour le transfert d'ammoniac
anhydre — Spécifications*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 5771 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 5771:1994), which has been technically revised. The main changes are the addition of a concentricity requirement (see 6.3), increases in the lining and cover adhesion requirements (see Table 4) and more detailed cover pin-pricking requirements (see 5.3). It also incorporates the Technical Corrigendum ISO 5771:1994/Cor.1:1995.

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WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory conditions.

CAUTION — All personnel working with anhydrous ammonia and its delivery systems should be familiar with and utilize the necessary safety precautions to minimize the potential for personal injury and property damage. Do not use anhydrous-ammonia hose assemblies at temperatures or pressures above those recommended by the hose manufacturer. Never recouple an anhydrous-ammonia hose. Hoses manufactured to this specification are suitable for use with anhydrous ammonia only.

1 Scope

This International Standard specifies the minimum requirements for rubber hoses used for transferring ammonia, in liquid or in gaseous form, at ambient temperatures from $-40\text{ }^{\circ}\text{C}$ up to and including $+55\text{ }^{\circ}\text{C}$. It does not include specifications for end fittings, but is limited to the performance of the hoses and hose assemblies.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 188:2007, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 1307, *Rubber and plastics hoses — Hose sizes, minimum and maximum inside diameters, and tolerances on cut-to-length hoses*

ISO 1402, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing*

ISO 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 4672:1997, *Rubber and plastics hoses — Sub-ambient temperature flexibility tests*

ISO 7326, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions*

ISO 8033, *Rubber and plastics hoses — Determination of adhesion between components*

ISO 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*