



**International
Standard**

ISO 25308

**Rubber and plastics hose
assemblies and tubing
assemblies — Determination of gas-
leakage by assembly fault**

*Assemblages de tuyaux et de tubes en caoutchouc et en
plastique — Détermination des fuites de gaz par défaut
d'assemblage*

**First edition
2026-03**

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Published in Switzerland

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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 document 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 45, *Rubber and rubber products*, Subcommittee SC 1, *Rubber and plastics hoses and hose assemblies*.

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.

Rubber and plastics hose assemblies and tubing assemblies — Determination of gas-leakage by assembly fault

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

1 Scope

This document specifies the method for the determination of the volume of gas-leakage from the interface between hose and fitting or interface between tubing and fitting by assembly fault.

NOTE See [Annex A](#) for an explanation of leakage determined by the test method in this document. Conception of leakage is shown in [Figures A.1](#) and [A.2](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8330 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obpd>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 end fitting

device attached to the end of a hose or tubing to facilitate connection to equipment constituting hose assembly

Note 1 to entry: "End fitting" can include an attached matching part to facilitate the test, if necessary.

3.2 permeation

process of penetration and effusion or diffusion of a gas or liquid through the hose wall

4 Test pieces

The test piece shall be a length of hose or tubing with end fittings. It shall have a free length of $0,5 \text{ m} \pm 0,005 \text{ m}$ for type test and the production length for routine test and maintenance inspection.

NOTE The type of fitting used and the method by which the fittings are fixed to the test piece can affect the results of leakage obtained using this method.