
**Plastics — Standard atmospheres for
conditioning and testing**

Plastiques — Atmosphères normales de conditionnement et d'essai

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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 291 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

This fourth edition cancels and replaces the third edition (ISO 291:2005), of which it constitutes a minor revision. The main changes are as follows:

- in Table 1, the way in which the two standard atmospheres are used is now described in terms of non-tropical and tropical countries;
- a second note, concerning the unacceptability of wider tolerances on temperature and relative humidity, has been added at the end of Clause 6.

Plastics — Standard atmospheres for conditioning and testing

1 Scope

This International Standard sets out specifications relating to the conditioning and testing of all plastics and all types of test specimen at constant atmospheric conditions.

Special atmospheres applicable to a particular test or material or simulating a particular climatic environment are not included in this International Standard.

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 62, *Plastics — Determination of water absorption*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

standard atmosphere

preferred constant atmosphere for which specific air temperature and humidity values, as well as limit ranges for atmospheric pressure and air-circulation velocity, are specified, the air not having any significant additional constituents and the atmosphere not being subject to any significant additional radiation influences

NOTE 1 Standard atmospheres permit a defined state to be attained and maintained for samples or specimens.

NOTE 2 Standard atmospheres correspond to the average atmospheric conditions in laboratories and can be established in conditioning (controlled atmosphere) cabinets, chambers or rooms.

3.2

conditioning atmosphere

constant atmosphere in which a sample or test specimen is kept before being subjected to a test

3.3

test atmosphere

constant atmosphere to which a sample or test specimen is exposed throughout a test

3.4

conditioning

one or more operations intended to bring a sample or test specimen into a state of equilibrium with regard to temperature and humidity

3.5

conditioning procedure

combination of the conditioning atmosphere and the period of conditioning