
INTERNATIONAL STANDARD



3402

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Tobacco and tobacco products — Atmospheres for conditioning and testing

Tabac et produits du tabac — Atmosphères de conditionnement et d'essai

Second edition — 1978-09-15

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UDC 663.97 : 620.1 : 551.58

Ref. No. ISO 3402-1978 (E)

Descriptors : tobacco, tests, testing conditions, test atmospheres.

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3402 was developed by Technical Committee ISO/TC 126, *Tobacco and tobacco products*. The first edition (ISO 3402-1975) had been approved by the member bodies of the following countries :

Belgium	Italy	Switzerland
Bulgaria	Netherlands	Thailand
Canada	Poland	Turkey
France	Portugal	United Kingdom
Germany	Romania	U.S.S.R.
Hungary	South Africa, Rep. of	Yugoslavia
India	Spain	
Iran	Sweden	

The member body of the following country had expressed disapproval of the document on technical grounds :

Japan

This second edition, which supersedes ISO 3402-1975, incorporates draft Amendment 1, which was circulated to the member bodies in October 1977. This draft amendment has been approved by the member bodies of the following countries :

Belgium	India	Spain
Brazil	Iran	Sweden
Bulgaria	Italy	Switzerland
Czechoslovakia	Netherlands	Thailand
Egypt, Arab Rep. of	Poland	Turkey
France	Portugal	United Kingdom
Germany	Romania	U.S.S.R.
Greece	South Africa, Rep. of	Yugoslavia

No member body expressed disapproval of the document.

Tobacco and tobacco products – Atmospheres for conditioning and testing

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies atmospheres for conditioning and testing samples and test pieces of tobacco and tobacco products.

This International Standard is applicable to tests on tobacco, tobacco products and materials used in the manufacture of tobacco products (for example papers, cigarette filters, etc.) for which a prior conditioning is necessary. It is not applicable in the case of test methods for which particular test conditions are laid down elsewhere.

2 REFERENCE

ISO/R 558, *Conditioning atmosphere, test atmosphere, reference atmosphere – Definitions.*

3 DEFINITIONS

See ISO/R 558.

4 ATMOSPHERES

4.1 Choice of atmospheres

Choose one of the atmospheres laid down in 4.2. In all cases state in the test report the atmosphere selected.

4.2 Conditioning atmospheres

Designation	Temperature	Relative humidity	Atmospheric pressure
	°C	%	mbar
A	22 ± 1	60 ± 2	} 860 to 1 060
B	22 ± 1	66 ± 2	
C	27 ± 1	66 ± 2	

The specified ranges listed in the above table define the atmosphere immediately surrounding the test piece. Therefore, in atmosphere A, for example, the atmosphere surrounding the test piece shall be maintained at a mean temperature of 22 °C and a mean relative humidity of 60 %.

4.3 Test atmosphere

The test atmosphere shall be the same as the conditioning atmosphere chosen. In cases where this is not practical, it shall be as close as possible to the conditioning atmosphere.

5 CONDITIONING

5.1 Duration of conditioning

For information, in current practice a duration of 24 h is generally found to be sufficient for loose cigarettes or filter rods or unreeled papers, using an appropriate installation. This conditioning time can be insufficient for certain samples or test pieces, for example packeted cigarettes or cigarettes in bulk; therefore, in all cases, it should be verified that equilibrium has been properly attained.

5.2 Checking of equilibrium

Equilibrium can be considered to be attained either :

- a) when the relative variation of the mass of the sample or test pieces is not greater than 0,2 % in 3 h;

or,

- b) when the sample or the test pieces, placed in a closed container of volume similar to that of the sample, give rise to a relative humidity in the container equal to that of the atmosphere chosen (A or B or C).