

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 558

CONDITIONING ATMOSPHERE
TEST ATMOSPHERE
REFERENCE ATMOSPHERE
DEFINITIONS

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BRIEF HISTORY

The ISO Recommendation R 558, *Conditioning Atmosphere – Test Atmosphere – Reference Atmosphere – Definitions*, was drawn up by Technical Committee ISO/TC ATCO, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1958 and led, in 1960, to the adoption of a Draft ISO Recommendation.

In April 1963, this Draft ISO Recommendation (No. 555) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Australia	Hungary	Portugal
Belgium	India	Romania
Brazil	Indonesia	Sweden
Burma	Iran	Switzerland
Chile	Italy	U.A.R.
Czechoslovakia	Japan	United Kingdom
France	Mexico	U.S.A.
Germany	Netherlands	U.S.S.R.
Greece	Norway	Yugoslavia

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in February 1967, to accept it as an ISO RECOMMENDATION.

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INTRODUCTION

The test conditions laid down should take into account the objective in view. This may be

- a specific objective: to study the behaviour of a given material, component or equipment, to determine its suitability;
- or a general objective: to obtain, under identical conditions, reproducible results suitable for comparing the characteristics of a given material, component or equipment.

Suitability

To determine the effect on a material, component or equipment, of the climatic, mechanical or other conditions under which it will be used, it may be necessary to test it under the extreme conditions which it may encounter in use, or even to test it under conditions differing greatly from ordinary ambient conditions (for an accelerated ageing test, for instance).

Such tests are often laid down in specifications which are particular to the field in question.

Comparison of results

If it is desired

- either to classify different materials, components or equipment, by quality,
- or to compare the results of tests carried out on them in different laboratories,

it is essential

- to bring the samples or test pieces into contact with an as exactly as possible reproducible standard atmosphere of agreed temperature, relative humidity and pressure characteristics (conditioning atmosphere) for the standard period of time prescribed or until equilibrium with that atmosphere is achieved, if that is specified;
- to carry out the tests in an environment of agreed temperature, relative humidity and pressure characteristics which may or may not be identical with the conditioning atmosphere (test atmosphere).

1. SCOPE

The purpose of this ISO Recommendation is to define the terms

- conditioning atmosphere
- test atmosphere
- reference atmosphere