

# ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

## ISO RECOMMENDATION R 291

PLASTICS  
STANDARD ATMOSPHERES FOR CONDITIONING AND TESTING

1st EDITION  
February 1963

COPYRIGHT RESERVED

The copyright of ISO Recommendations and ISO Standards belongs to ISO Member Bodies. Reproduction of these documents, in any country, may be authorized therefore only by the national standards organization of that country, being a member of ISO.

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

## BRIEF HISTORY

The ISO Recommendation R 291, *Plastics — Standard Atmospheres for Conditioning and Testing*, was drawn up by Technical Committee ISO/TC 61, *Plastics*, the Secretariat of which is held by the American Standards Association, Inc. (ASA).

Work on this question by the Technical Committee began in 1951 and led, in 1958, to the adoption of a Draft ISO Recommendation.

In October 1959, this Draft ISO Recommendation (No. 316) was circulated to all the ISO Member Bodies for enquiry. It was approved by the following Member Bodies:

Argentina	Germany	Poland
Australia	Hungary	Portugal
Austria	India	Romania
Belgium	Israel	Spain
Burma	Italy	Sweden
Chile	Japan	Switzerland
Czechoslovakia	Mexico	United Kingdom
France	Netherlands	U.S.A.
		U.S.S.R.

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 1963, to accept it as an ISO RECOMMENDATION.

## PLASTICS

# STANDARD ATMOSPHERES FOR CONDITIONING AND TESTING

### 1. SCOPE

This ISO Recommendation applies to the normal conditioning and testing of all plastics materials and all types of test specimens under approximately ambient atmospheric conditions. Special atmospheres applicable to a particular test or material or simulating a particular climatic environment are not included.

### 2. DEFINITION

Conditioning, for the purposes of this ISO Recommendation, means exposure of plastics materials to the influence of a prescribed atmosphere for a stipulated period of time. In this sense, the principle aim of conditioning is to improve the reproducibility of test results.

### 3. STANDARD ATMOSPHERE

The standard test atmosphere should be chosen among those defined below:

3.1 For use when control of temperature and humidity is necessary:

- (1) 20 °C 65 per cent relative humidity
- (2) 23 °C 50 per cent relative humidity
- (3) 27 °C 65 per cent relative humidity

3.2 For use when only control of temperature is necessary:

- (1) 20 °C
  - (2) 23 °C
  - (3) 27 °C
- } Ambient humidity

3.3 For use when control of temperature and humidity is not necessary:

Prevailing ambient atmospheric conditions.

### 4. TOLERANCES

#### 4.1 Temperature

For the temperatures specified in clause 3.1 and 3.2, the normal tolerance should be  $\pm 2$  °C.

If a closer tolerance is required, it should be  $\pm 1$  °C.

#### 4.2 Relative humidity

For the relative humidities specified in clause 3.1, the normal tolerance should be  $\pm 5$  per cent relative humidity.

If a closer tolerance is required, it should be  $\pm 2$  per cent relative humidity.