UDC 676.017

Ref. No.: ISO/R 187 - 1961 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 187

METHOD FOR THE CONDITIONING OF PAPER AND BOARD TEST SAMPLES

1st EDITION

February 1961

Printed in Switzerland

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

BRIEF HISTORY

The ISO Recommendation R 187, *Method for the Conditioning of Paper and Board Test Samples*, was drawn up by Technical Committee ISO/TC 6, *Paper*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this matter, which was begun by the Technical Committee in 1958, was completed in the same year with the adoption of a proposal as a Draft ISO Recommendation.

On 10 July 1959, the Draft ISO Recommendation (No. 313) was distributed to all the ISO Member Bodies and was approved by the following Member Bodies:

Austria	Greece	Portugal
Belgium	India	Romania
Brazil	Israel	Spain
Burma	Japan	Sweden
Chile	Mexico	Switzerland
Czechoslovakia	Netherlands	Turkey
Denmark	New Zealand	United Kingdom
Finland	Norway	U.S.S.R.
France	Pakistan	Yugoslavia
Germany	Poland	

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 1961, to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 187 February 1961

METHOD FOR THE CONDITIONING OF PAPER AND BOARD TEST SAMPLES

FOREWORD

This ISO Recommendation describes a method which should be considered as the standard method in the absence of any previous agreement.

The physical properties of paper are affected materially by its moisture content which, in turn, is dependent on the humidity of the surrounding atmosphere. In order that tests may be made on paper in a defined physical state, it is brought into equilibrium with an atmosphere of standardized temperature and relative humidity and it is tested in that atmosphere.

The moisture content of a given paper in equilibrium with a given atmosphere varies according to whether the equilibrium is reached by sorption or desorption of moisture. This hysteresis influences those physical properties that change with moisture content; it is recommended that the equilibrium condition be attained by a sorptive process.

1. OBJECT AND SCOPE

The object of this ISO Recommendation is to define the conditioning atmosphere and the method of conditioning paper and board before and during testing.

It applies to all papers and boards.

2. PRINCIPLE

To expose the samples to a conditioning atmosphere in such a manner that a state of moisture content equilibrium is reached between the paper or board and this atmosphere.

3. DEFINITIONS

3.1 **Relative humidity** (R.H.). Ratio of the absolute humidity of the air to the humidity of air saturated with water vapour at the same temperature and pressure.

NOTE. The ratio is usually expressed as a percentage. At ordinary atmospheric temperatures, this ratio is almost exactly equal to the ratio of the actual vapour pressure to the saturation vapour pressure at the same (dry bulb) temperature.

3.2 **Conditioning.** For the purpose of this method, paper samples are conditioned when they are in equilibrium with a conditioning atmosphere. This equilibrium is considered to be attained by determining the weights of the samples at intervals of not less than an hour until the last two weighings do not differ by more than the specified amount.

The establishment of moisture equilibrium is accepted as ensuring that the paper is in a stable physical state, but in special cases, conditioning may have to be prolonged until the desired physical equilibrium is attained. Such cases are not within the scope of this method.