INTERNATIONAL STANDARD 172

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Plastics — Phenol-formaldehyde mouldings — Detection of free ammonia

Plastiques — Pièces moulées à base de phénoplastes — Recherche de la présence d'ammoniac libre

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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 172 was developed by Technical Committee ISO/TC 61, *Plastics*.

It was submitted directly to the ISO Council, in accordance with clause 6.13.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 172-1961, which had been approved by the member bodies of the following countries :

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

No member body had expressed disapproval of the document.

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Plastics — Phenol-formaldehyde mouldings — Detection of free ammonia

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a qualitative method of detecting the presence of free ammonia or other volatile bases in phenol-formaldehyde mouldings by the exposure of an indicator paper to the vapour from a powdered sample. It may be used when the absence of free ammonia is a requirement.

2 PRINCIPLE

Detection of alkaline vapours from a powdered test portion, contained in a sealed flask, by means of universal indicator paper.

3 APPARATUS

3.1 Means for reducing the mouldings to a powder.

3.2 Balance, accurate to 0,01 g.

3.3 Glass-stoppered flask, capacity 50 ml.

3.4 Universal indicator test paper, pH range 1,0 to 11,0.

4 PREPARATION OF TEST SAMPLE

Reduce a fully representative sample of the mouldings to powder by filing, milling, grinding, turning or drilling, taking care that no undue heating of the material occurs. The prepared sample shall be tested (see clause 5) without delay.

5 PROCEDURE

Weigh a test portion of approximately 1 g of the test sample (clause 4) and, without delay, place it in the flask (3.3). Quickly stopper the flask, placing a strip of universal indicator paper (3.4), moistened with distilled water, between the stopper and the flask so that the end of the paper projects into the flask.

Take care that the paper does not come into contact with the test portion.

After 30 min, examine the colour of the indicator paper and note any change.

6 EXPRESSION OF RESULTS

If the indicator paper does not change colour, report that the moulding does not contain free ammonia or other volatile bases.

If the indicator paper changes colour, indicating the presence of alkaline vapours, report that the moulding contains free ammonia or other volatile bases.

7 TEST REPORT

The test report shall include the following particulars :

a) reference to this International Standard;

b) full details necessary for the identification of the sample;

c) the method used for reducing the mouldings to powder;

d) the presence or absence of free ammonia or other volatile bases.