

ISO

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 59

PLASTICS

DETERMINATION OF THE PERCENTAGE
OF ACETONE SOLUBLE MATTER
IN PHENOLIC MOULDINGS

1st EDITION

April 1958

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BRIEF HISTORY

The ISO Recommendation R 59, *Determination of the Percentage of Acetone Soluble Matter in Phenolic Mouldings*, was prepared by Technical Committee ISO/TC 61, *Plastics*, the Secretariat of which is held by the American Standards Association, Incorporated (ASA).

At its second meeting, held in Turin, in October 1952, the Technical Committee assigned the development of this question to its Working Group No. 5, *Physical Chemical Properties*, under the leadership of the United Kingdom.

The draft formulated by the Working Group, was presented to the Technical Committee at its third plenary meeting, held at Stockholm, in August 1953; and then distributed to the members of the Technical Committee as a draft proposal for an ISO Recommendation.

After its reconsideration at the fourth meeting of ISO/TC 61, held in Brighton, in October 1954, the draft proposal was adopted, subject to some amendments, as a Draft ISO Recommendation.

On 31 December 1955, the Draft ISO Recommendation was circulated to all ISO Member Bodies and, some amendments having been taken into consideration, it was approved by the following 29 Member Bodies (out of a total of 37):

Australia	Hungary	Portugal
Austria	India	Spain
Belgium	Ireland	Sweden
Bulgaria	Israel	Turkey
Chile	Italy	Union of South Africa
Czechoslovakia	Mexico	United Kingdom
*Denmark	Netherlands	U.S.A.
Finland	New Zealand	U.S.S.R.
Germany	Pakistan	Yugoslavia
*Greece	Poland	

No Member Body opposed approval of the Draft.

The Draft ISO Recommendation was then submitted, by correspondence, to the ISO Council, which decided, in April 1958, to accept it as an ISO RECOMMENDATION.

* These Member Bodies stated that they had no objection to the Draft being approved.

PLASTICS

DETERMINATION OF THE PERCENTAGE OF ACETONE SOLUBLE MATTER IN PHENOLIC MOULDINGS

1. SCOPE

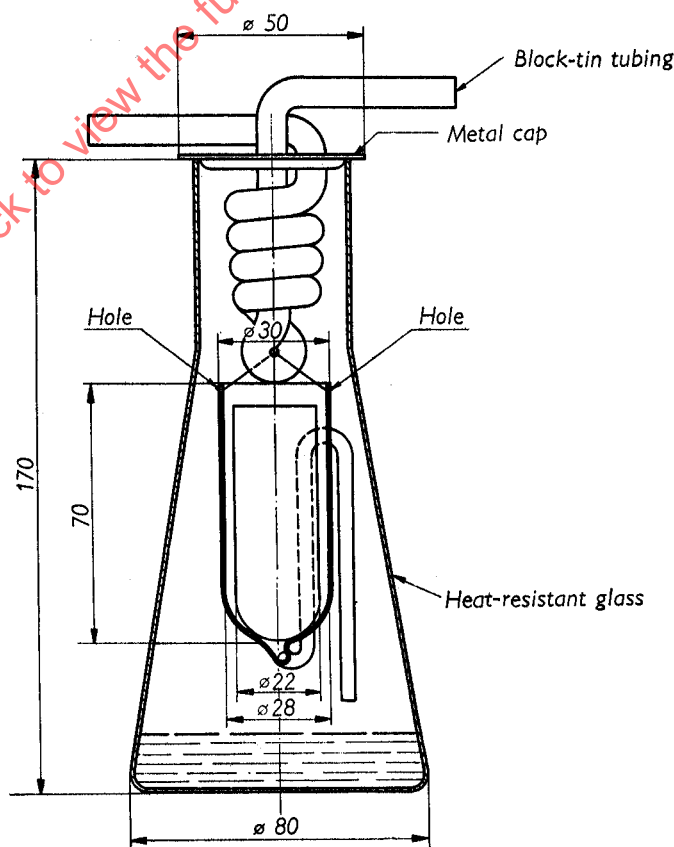
- 1.1** This method of test describes the procedure for determining the percentage of matter which can be extracted by acetone, at a temperature near its boiling point, from a finely ground sample of a phenolic moulding.
- 1.2** The test for acetone soluble matter is one means for determining the relative degree of cure of phenolic mouldings made from a given material. The process of extraction is carried out under specified conditions for a specified time. While a high proportion of soluble matter is determined, extraction is not necessarily complete. The results are not more than comparative, because the extracted material normally contains substances other than any undercured resin which may be present, e.g. lubricants, colouring matter and plasticizers.

2. APPARATUS

- 2.1** The apparatus consists of the following:

- (a) means for reducing the moulded sample to a fine state of division;
- (b) balance to weigh to 0.0001 g;
- (c) sieve with apertures $0.420 \text{ mm} \pm 0.015 \text{ mm}$ square;*;
- (d) sieve with apertures $0.250 \text{ mm} \pm 0.012 \text{ mm}$ square;*;
- (e) extraction apparatus of the type shown in the figure.

Alternatively, it is permissible to use a Soxhlet-type apparatus, in which the material in the thimble is surrounded by the vapour of the boiling solvent. Any other extraction apparatus may be used, provided that it can be shown to give similar results.



All dimensions are approximate and are expressed in millimetres

EXTRACTION APPARATUS

* Standardization of sieve openings is now under study by Technical Committee ISO/TC 24, Sieves. If the values specified for sieve openings in the present Recommendation are not included in the ISO Recommendation, which will have been drawn up for sieve openings, Technical Committee ISO/TC 61 will reconsider the present specification.