

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 600

PLASTICS

DETERMINATION OF THE VISCOSITY RATIO OF POLYAMIDES IN CONCENTRATED SOLUTION

1st EDITION

August 1967

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BRIEF HISTORY

The ISO Recommendation R 600, *Plastics – Determination of the viscosity ratio of polyamides in concentrated solution*, was drawn up by Technical Committee ISO/TC 61, *Plastics*, the Secretariat of which is held by the United States of America Standards Institute (USASI).

Work on this question by the Technical Committee began in 1960 and led, in 1961, to the adoption of a Draft ISO Recommendation.

This first Draft ISO Recommendation (Nº 513) was circulated in June 1962 to all the ISO Member Bodies for enquiry. As the results of this consultation were not considered satisfactory, the Technical Committee presented a second Draft ISO Recommendation which was circulated to all the Member Bodies in July 1964 and which was approved, subject to a few modifications of an editorial nature by the following Member Bodies:

Austria	India	South Africa
Belgium	Italy	Rep. of
Canada	Japan	Sweden
Chile	Korea, Rep. of	U.A.R.
Czechoslovakia	Netherlands	United Kingdom
Denmark	New Zealand	U.S.A.
Finland	Poland	U.S.S.R.
Germany	Romania	

One Member Body opposed the approval of the Draft:

France

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

PLASTICS

**DETERMINATION OF THE VISCOSITY RATIO OF POLYAMIDES
IN CONCENTRATED SOLUTION****1. SCOPE**

- 1.1 This ISO Recommendation describes a test method for determining the viscosity ratio of a solution of polyamides in formic acid. The method is applicable to those polyamides only that are soluble and do not degrade in formic acid in the specified conditions and which give reproducible results under the conditions of test described below. The times of flow of the solvent and of a solution containing 8.4% by mass (11 g/100 ml) of polyamide in the solvent are measured at 25 °C by conventional methods and the viscosity ratio is calculated from these measurements. Mathematical corrections for kinetic energy are small in this method and are not applied.
- 1.2 If a substantial amount of monomer* is known to be present in the sample, the amount should be determined in accordance with ISO Recommendation R 599* and indicated in the test report. The presence of monomer affects considerably the determination of viscosity ratio of certain types of polyamides. If the sample contains an additive or filler which would affect the viscosity measurement, it should be removed by a procedure agreed between the contracting parties.
- 1.3 This method is intended for use in specifications for polyamides for the purpose of comparing different types or for control purpose during manufacture. To get an insight into the molecular structure of polyamides, viscosity is normally determined in dilute solution in accordance with ISO Recommendation R 307, *Determination of the viscosity number of polyamides in dilute solution*.

* In this text, monomer is understood as "monomer and low molecular mass polymer" in accordance with ISO Recommendation R 599, *Plastics — Determination of the percentage of extractable materials in polyamides*.

Dimensions in millimetres

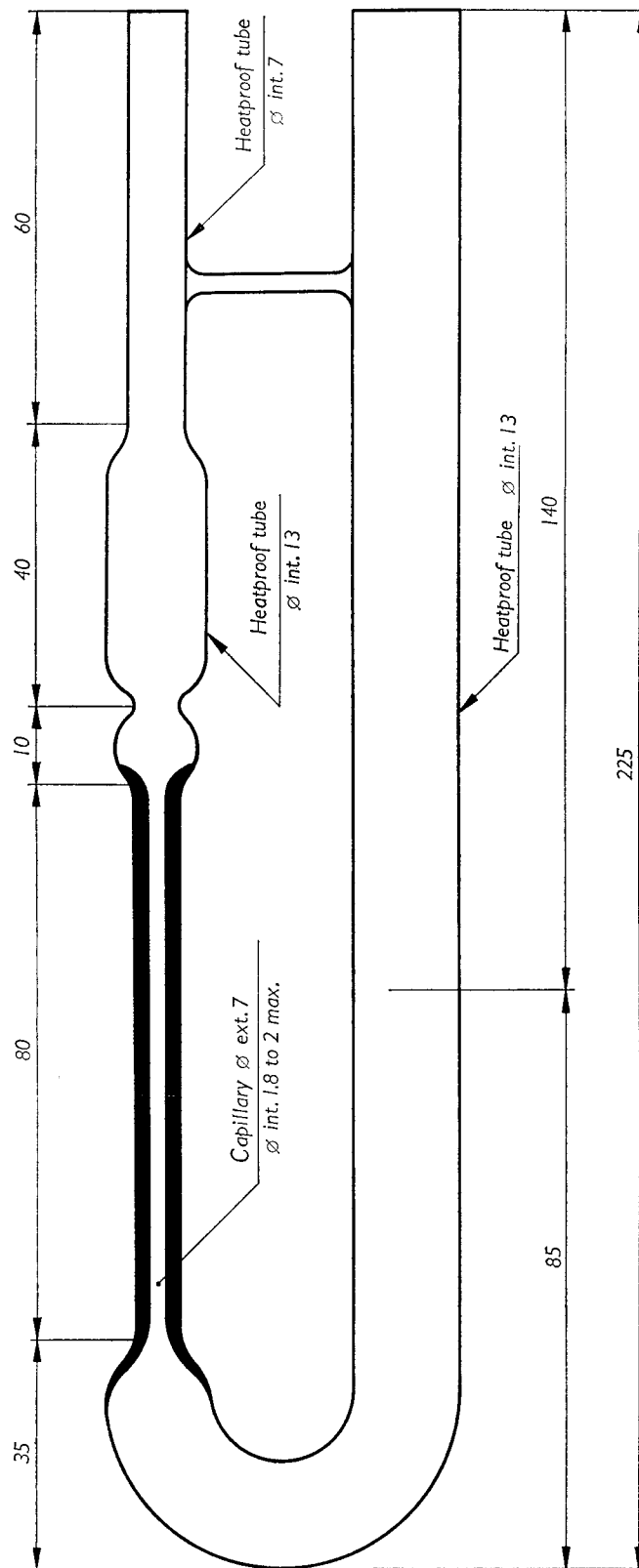


FIGURE — Viscometer for viscosity ratio