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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1688

SODIUM AND POTASSIUM SILICATES

FOR INDUSTRIAL USE

DETERMINATION OF DRY MATTER

GRAVIMETRIC METHOD

1st EDITION

July 1970

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BRIEF HISTORY

The ISO Recommendation R 1688, *Sodium and potassium silicates for industrial use – Determination of dry matter – Gravimetric method,* was drawn up by Technical Committee ISO/TC 47, *Chemistry,* the Secretariat of which is held by the Ente Nazionale Italiano de Unificazione (UNI).

Work on this question led to the adoption of Draft ISO Recommendation No. 1688 which was circulated to all the ISO Member Bodies for enquiry in December 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Israel	Spain
Brazil	Italy	Switzerland
Colombia	Japan	Thailand
Czechoslovakia	Netherlands	Turkey
France	New Zealand	U.A.R.
Germany	Peru	United Kingdom
Greece	Poland	U.S.S.R.
Hungary	Portugal	Yugoslavia

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided to accept it as an ISO RECOMMENDATION.

ISO Recommandation | R 1688 | July 1970

SODIUM AND POTASSIUM SILICATES

FOR INDUSTRIAL USE

DETERMINATION OF DRY MATTER

GRAVIMETRIC METHOD

1. SCOPE

This ISO Recommendation describes a gravimetric method for the determination of dry matter in sodium and potassium silicates for industrial use.

2. PRINCIPLE

Drying of the test portion followed by heating to between 600 and 650 °C.

Weighing of the residue.

3. APPARATUS

Ordinary laboratory apparatus.

NOTE. – Use heating apparatus which does not produce carbon dioxide.

4. PROCEDURE

4.1 Test portion

Heat a dish made of platinum or quartz*, of 30 to 35 ml capacity (upper diameter of approximately 75 mm) for a few minutes in an electric furnace controlled between 600 and 650 °C, cool to ambient temperature in a desiccator and weigh.

Weigh into this dish, to the nearest 0.001 g, a test portion of 1 to 2 g of the test sample.

4.2 Determination

First *gently* heat the dish containing the test portion (4.1) in order to remove most of the water while avoiding losses of matter due to splashing. For this purpose, use a device which heats the lower part of the vessel (heating plate) or the upper part (infra-red radiation lamp or other source of heat not in contact with the dish).

Gradually increase the temperature to between 600 and 650 °C, and maintain for 10 minutes.

Cool in a desiccator to ambient temperature and weigh to the nearest 0.001 g.

Repeat the operation until the difference between the results of two successive weighings does not exceed 1 mg.

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* Porcelain dishes may also be used provided they are allowed to cool in a desiccator for at least 45 minutes before weighing.