INTERNATIONAL STANDARD 1762

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Pulps — Determination of ash

Pâtes — Détermination des cendres

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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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 6 has reviewed ISO Recommendation R 1762 and found it suitable for transformation. International Standard ISO 1762 therefore replaces ISO Recommendation R 1762-1970.

ISO Recommendation R 1762 was approved by the Member Bodies of the following countries :

Australia	Greece	South Africa, Rep. of
Belgium	India	Spain
Canada	Iran	Sweden
Chile	Israel	Switzerland
Czechoslovakia	Netherlands	Turkey
Egypt, Arab Rep. of	Norway	United Kingdom
Finland	Peru	U.S.A.
France	Portugal	U.S.S.R.
Germany	Romania	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1762 into an International Standard.

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Pulps — Determination of ash

0 INTRODUCTION

In establishing this method a statistical study was made of the determination of ash and of sulphated ash in many different types of pulp. It was proved that neither method showed any significant advantage over the other. Therefore, the more simple ash method was chosen.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for the determination of ash in pulp. The ash content of pulp gives an estimation of its content of mineral salts and other inorganic matter, but is not quantitatively equal to it.

The method applies to all kinds of pulp.

2 REFERENCE

ISO/R 638, *Pulps — Determination of dry matter content.*

3 DEFINITION

ash content of a pulp sample : The mass of the residue after complete combustion at a temperature of 575 ± 25 °C under specified conditions, expressed as a percentage of the mass of the oven-dry sample.

4 APPARATUS

4.1 Crucibles or **dishes** of platinum, porcelain or quartz.

4.2 Electric muffle furnace, suitable for maintaining a temperature of 575 ± 25 °C.

5 PREPARATION OF THE TEST SAMPLE

Tear the air-dry sample into pieces of a suitable size. Do not use cut or punched edges, or other parts where metallic contamination may have occured.

6 PROCEDURE

6.1 Preparation of the test portion

Weigh, to the nearest 0,01 g, an amount of pulp that will give not less than 10 mg of ash. At the same time weigh a separate test portion for dry matter determination according to ISO/R 638.

6.2 Determination

Heat a crucible or dish for 15 min in the muffle furnace at 575 ± 25 °C. Place it in a desiccator and cool for 45 min when porcelain or quartz ware is used, or for 15 min when using platinum. Weigh to the nearest 0,1 mg.

If the test portion is of a suitable size, place it in the crucible and burn the pulp over the low flame of a gas burner until it is well carbonized (see note 1). If the crucible or dish is too small to hold the entire test portion, gently burn it off in portions. Take care not to let any ash blow from the crucible. Then place the crucible in the muffle furnace and ignite at 575 ± 25 °C for a period of 3 h, or longer if needed to burn away all the carbon (see note 2).

When the ignition is complete, as indicated by the absence of black particles, allow to cool as described above and weigh to the nearest 0,1 mg.

Carry out two determinations on the same test sample.

NOTES

1 In the event that a suitable furnace is available for each separate sample, place the crucible in a cold furnace and heat carefully until the pulp is well carbonized. When a gas burner is used, take care that the inner (reducing) cone of the flame does not come into contact with the platinum. Adjust the flame so that no carbon deposits are formed on the outside of the crucible or dish.

2 Undue extension of the ignition time may favour unwanted reactions and produce erroneous results.