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**Paper, board and pulps —  
Determination of residue (ash) on  
ignition at 525 °C**

*Papier, carton et pâtes — Détermination du résidu (cendres) après  
incinération à 525 °C*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 6, *Paper, board and pulps*.

This third edition cancels and replaces the second edition (ISO 1762:2001), which has been technically revised.

# Paper, board and pulps — Determination of residue (ash) on ignition at 525 °C

## 1 Scope

This International Standard describes the determination of the residue (ash) on ignition of paper, board and pulp at 525 °C. It is applicable to all types of paper, board, and pulp samples. The ash may consist of

- a) mineral matter in the pulp and various residues from chemicals used in its manufacture,
- b) metallic matter from piping and machinery, and
- c) fillers, pigments, coatings, or residues from various additives.

In samples containing calcium carbonate, there is practically no decomposition of carbonate by ashing at 525 °C. Other fillers and pigments such as clay and titanium dioxide are also unaffected by ashing at 525 °C. Accordingly, the residue on ignition as determined by this International Standard provides a good estimate of the total inorganic matter in the sample, provided that the sample does not contain other minerals which decompose at or below this temperature. For example, magnesium carbonate and calcium sulfate may, at least partly, decompose at temperatures below 525 °C.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 186, *Paper and board — Sampling to determine average quality*

ISO 287, *Paper and board — Determination of moisture content of a lot — Oven-drying method*

ISO 638, *Paper, board and pulps — Determination of dry matter content — Oven-drying method*

ISO 7213, *Pulps — Sampling for testing*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **residue on ignition**

#### **ash on ignition**

mass of the residue remaining after a test specimen of paper, board, or pulp is ignited in a furnace at 525 °C ± 25 °C as specified in this International Standard

## 4 Principle

A test specimen is weighed in a heat-resistant crucible and ignited in a muffle furnace at 525 °C ± 25 °C. The moisture content of a separate test specimen is also measured. The percentage ash is then determined, on a moisture-free basis, from the weight of residue after ignition and the moisture content of the sample.