

# INTERNATIONAL STANDARD

**ISO**  
**11480**

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## **Pulp, paper and board — Determination of total chlorine and organically bound chlorine**

*Pâtes, papier et carton — Dosage du chlore total et du chlore lié aux  
matières organiques*



Reference number  
ISO 11480:1997(E)

## Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11480 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*.

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# Pulp, paper and board — Determination of total chlorine and organically bound chlorine

## 1 Scope

This International Standard specifies the determination of total and organically bound chlorine in pulp, paper and board. It is applicable to all types of pulp, paper and board. The lower limit of the determination is about 20 mg/kg.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 186:1994, *Paper and board — Sampling to determine average quality*.

ISO 287:1985, *Paper and board — Determination of moisture content — Oven-drying method*.

ISO 638:1978, *Pulps — Determination of dry matter content*.

## 3 Definitions

For the purposes of this International Standard, the following definitions apply.

**3.1 total chlorine:** The total amount of the element chlorine present.

**3.2 organically bound chlorine:** The amount of organically bound chlorine present.

## 4 Principle

Determination of the chlorine content of the sample by combustion under controlled conditions in a quartz tube at high temperature. The combustion gases are fed through an electrolyte solution where all chlorine, now transformed to hydrogen chloride, is absorbed and determined by microcoulometry. For determination of the organically bound chlorine content, the inorganic chlorine compounds are extracted with dilute nitric acid before combustion.

### NOTES

- 1 If determination of organically bound chlorine is not required, the extraction with nitric acid is omitted.
- 2 Any bromine present will interfere and cause a positive error. For details, see clause 16.