

# INTERNATIONAL STANDARD

# ISO 9088

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## **Carbonaceous materials used for the production of aluminium — Cathode blocks and prebaked anodes — Determination of the density in xylene by a pycnometric method**

*Produits carbonés utilisés pour la production de l'aluminium — Blocs  
cathodiques et anodes précuites — Détermination par pycnométrie de la  
masse volumique en xylène*



Reference number  
ISO 9088:1997(E)

## 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.

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 9088 was prepared by Technical Committee ISO/TC 47, *Chemistry*, Subcommittee SC 7, *Aluminium oxide, cryolite, aluminium fluoride, sodium fluoride, carbonaceous products for the aluminium industry*.

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# Carbonaceous materials used for the production of aluminium — Cathode blocks and prebaked anodes — Determination of the density in xylene by pycnometric method

## 1 Scope

This International Standard specifies a pycnometric method for the determination of the true density in xylene of cathode blocks and prebaked anodes used for the production of aluminium.

## 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 3507:1976, *Pycnometers*.

ISO 8007:1985, *Carbonaceous materials used in the production of aluminium — Sampling from cathodic blocks and prebaked anodes — General*.

## 3 Principle

The true density of cathode blocks and prebaked anodes is measured in xylene in a pycnometer after degassing under a vacuum.

## 4 Reagents and materials

During the determination, unless otherwise stated, use only reagents of recognized analytical grade and only distilled water, or water of equivalent purity, degassed by boiling for 1 h.

**4.1 Ethanol**, 95 % (V/V).

**4.2 Acetone**.

**4.3 Sulfuric acid**, density approx. 1,84 g/ml, about 98 % (m/m) solution.