# INTERNATIONAL STANDARD

First edition 1997-04-01

# Carbonaceous materials for use in the production of aluminium — Green and calcined coke — Determination of trace elements by flame atomic absorption spectroscopy

Produits carbonés utilisés pour la production de l'aluminium — Coke cru et calciné — Détermination des éléments-traces par spectrométrie d'absorption atomique dans la flamme



## 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 nongovernmental, 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 % The member bodies casting a vote.

International Standard ISO 8658 was prepared by the British Standards Institution (BSI) (as BS 6043: Part 2: Section 2.3:1989) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 47, *Chemistry* in parallel with its approval by the ISO member polies.

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Printed in Switzerland

# Carbonaceous materials for use in the production of aluminium — Green and calcined coke — Determination of trace elements by flame atomic absorption spectroscopy

#### 1 Scope

This International Standard describes a method for the determination of trace elements in green and calcined coke with an ash content of not greater than % (m/m) and with individual concentrations not greater than the following:

Calcium	0,025 % (m/m)
Chromium	0,005 % ( <i>m/m</i> )
Copper	0,025 % (m/n)
Iron	0,030 % ( <i>m/m</i> ) 🚫
Lead	0,010 % ( <i>m/m</i> )
Magnesium	0,010 % ( <i>m/m</i> )
Manganese	0,001 % ( <i>m/m</i> )
Nickel	0,050 % ( <i>m</i> / <i>m</i> )
Silicon	0,100 % ( <i>m</i> / <i>m</i> )
Vanadium	0,100 % ( <i>m</i> / <i>m</i> )
Zinc	0,004 % ( <i>m/m</i> )

NOTE — A method for the determination of ash of cokes is given in 150,8005:1984, *Carbonaceous materials used in the production of aluminium* — *Green and calcined coke* — *Determination of ash* However, it is essential that the ash produced by that method not be used in the procedure of this International Standard because of the risk of contamination by trace elements.

### 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. At 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 385-1:1984, Laboratory glassware — Burettes — Part 1: General requirements.

ISO 835-1:1981, Laboratory glassware — Graduated pipettes — Part 1: General requirements.

ISO 1042:1983, Laboratory glassware — One-mark volumetric flasks.

ISO 3696:1987, Water for laboratory use — Specification and test methods.

ISO 6375:1980, Carbonaceous materials for the production of aluminium — Coke for electrodes — Sampling.