
**Solid mineral fuels — Hard coal —
Determination of moisture in the general
analysis test sample by drying in nitrogen**

*Combustibles minéraux solides — Houille — Détermination de l'humidité de
l'échantillon pour analyse par dessiccation en atmosphère d'azote*



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 11722 was prepared by Technical Committee ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 5, *Methods of analysis*.

Annex A of this International Standard is for information only.

© ISO 1999

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

Introduction

The determination of the moisture in the general analysis test sample is required to correct the results of certain analytical determinations, e. g., volatile matter and hydrogen, for the effect of water in the determination and to allow all determinations to be corrected to dry basis.

Since hard coal is hygroscopic, its moisture will vary with change of humidity of the atmosphere and the moisture in the general analysis test sample should therefore be determined whenever portions are weighed out for other analytical determinations. If test portions for several analytical determinations are weighed out at the same time, a single simultaneous moisture determination will suffice to correct those analyses.

This document is a preview generated by EVS

This document is a preview generated by EVS

Solid mineral fuels — Hard coal — Determination of moisture in the general analysis test sample by drying in nitrogen

1 Scope

This International Standard specifies a method for determining the moisture in the general analysis test sample of hard coal by drying in nitrogen.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, such documents do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1213-2:1992, *Solid mineral fuels — Vocabulary — Part 2: Terms relating to sampling, testing and analysis*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 1213-2 apply.

4 Principle

A known mass of the coal is heated in a stream of nitrogen at a temperature between 105 °C and 110 °C and maintained at this temperature until it is constant in mass. The moisture content is calculated from the loss in mass of the coal.

5 Reagent

Nitrogen, moisture-free, having an volume fraction of oxygen of less than 30 µl/l.

Commercially available nitrogen with a water content of less than 5 µl/l does not require further drying.

6 Apparatus

6.1 Analytical balance, capable of weighing to the nearest 0,1 mg.

6.2 Oven, capable of being controlled at a temperature of 105 °C to 110 °C and with provision for the nitrogen to pass through it at a flow-rate of approximately 15 times the oven volume per hour and of lowest practical volume, i.e. minimum free space.

NOTE An example of a suitable oven is given in Annex A.