
**Brown coals and lignites — Determination
of the volatile matter in the analysis
sample —**

**Part 1:
Two-furnace method**

*Charbons bruns et lignites — Détermination des matières volatiles dans
l'échantillon pour analyse —*

Partie 1: Méthode avec utilisation de deux fours



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 5071-1 was prepared by Technical Committee ISO/TC 27, *Solid mineral fuels*, Subcommittee SC 5, *Methods of analysis*.

ISO 5071 consists of the following part, under the general title *Brown coals and lignites — Determination of volatile matter in the analysis sample*:

— Part 1: *Two-furnace method*

© ISO 1997

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 central@iso.ch
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

Printed in Switzerland

Introduction

The volatile matter is determined as the loss in mass, corrected for moisture, when an analysis sample of brown coal or lignite is heated out of contact with air under specified conditions. The test is empirical and, in order to obtain reproducible results, it is essential that the rate of heating, the final temperature and the overall duration of the test be carefully controlled. Due to the nature of brown coals and lignites, initial heating of the sample at 400 °C is necessary to minimize the possibility of ejection of sample from the test crucible.

Mineral matter associated with the sample may also lose mass under the conditions of the test, the magnitude of the loss being dependent on both the nature and the quantity of the minerals present.

This document is a preview generated by EVS

This document is a preview generated by EVS

This page intentionally left blank

Brown coals and lignites — Determination of the volatile matter in the analysis sample —

Part 1:

Two-furnace method

1 Scope

This part of ISO 5071 specifies a method of determining the volatile matter of brown coals and lignites.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5071. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 5071 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 1170:1977, *Coal and coke — Calculation of analyses to different bases — Vocabulary*.

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

ISO 5068:1983, *Brown coals and lignites — Determination of moisture content — Indirect gravimetric method*.

ISO 5069-2:1983, *Brown coals and lignites — Principles of sampling — Part 2: Sample preparation for determination of moisture content and for general analysis*.

3 Definitions

For the purposes of this part of ISO 5071, the definitions given in ISO 1213-2 apply.

4 Principle

The coal is heated out of contact with air for 7 min at 400 °C, then immediately transferred to another furnace and heated at 900 °C for a further 7 min. The percentage of volatile matter is calculated from the loss in mass of the oven-dried sample or from the loss in mass of the analysis sample corrected for moisture.