
**Hard Coal — Determination of
plastometric indices — Manual
method**

*Houille — Détermination des indices plastométriques — Méthode
manuelle*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The determination of plastic layer indices has been performed in GB/T 479^[5] and GOST 1186^[6] for many years. First, a manual detection of the height of the upper and lower interfaces of the plastic layer is performed, then curves for the upper and lower layers are established and finally the maximum thickness of plastic matter is calculated.

Instrumental methods for a more rapid determination of plastic layer indices are now available. If such a method is to be used, it is important to demonstrate that the method is free from bias, when compared to a reference method. In addition, it should give levels of repeatability and reproducibility which are the same as, or better than, those quoted for the reference method (see [Clause 11](#)).

The objective of this document is to provide a reference method for determination of the plastometric indices.

Hard Coal — Determination of plastometric indices — Manual method

1 Scope

This document specifies a manual method for the determination of plastometric indices. These indices are the maximum thickness of the plastic layer (Y , mm) and the final contraction value (X , mm).

This document is applicable for hard coals with a determined ash level less than 15 % on a dry basis, as described in ISO 11722 and ISO 1171.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 3310-2, *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate*

ISO 13909-1, *Hard coal and coke — Mechanical sampling — Part 1: General introduction*

ISO 13909-2, *Hard coal and coke — Mechanical sampling — Part 2: Coal — Sampling from moving streams*

ISO 13909-3, *Hard coal and coke — Mechanical sampling — Part 3: Coal — Sampling from stationary lots*

ISO 13909-4, *Hard coal and coke — Mechanical sampling — Part 4: Coal — Preparation of test samples*

ISO 18283, *Coal and coke — Manual sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1213-2 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

displacement curve of the plastic layer

curve of displacement of the packed coal bed changing with the temperature during the determination of plastometric indices

3.2

maximum thickness of plastic layer

Y

maximum perpendicular distance between the upper and lower plastic layer