BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

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Draft Indian Standard

METHODS OF TEST FOR BROWN COALS AND LIGNITES PART 6 DETERMINATION OF TRUE RELATIVE DENSITY AND APPARENT RELATIVE DENSITY

[*First Revision* of IS 5062 (Part 6)]

(ICS 73.040)

Solid Mineral Fuels and Solid Biofuels Sectional Committee, PCD 7	Last date for comments: **20 May 2024**

NATIONAL FOREWORD

(*Formal clauses will be added later*)

Relative density of the coal depends on the rank of the coal and degree of mineral impurity. Its determination has major applications in finding out the quality of lignite, estimation of reserve, handling, design and also plays a major role in lignite utilization areas.

This standard was originally published in 2017, as adoption of ISO 5072 : 2013 'Brown coals and Lignites — Determination of true relative density and apparent relative density'. This (*first*) revision has been taken up to align it with the latest version of ISO 5072 : 2021.

The major changes in this revision are as follows:

— referenced documents have been updated;
— terms and definitions have been added;
— sample has been added;
— calculation and expression of results have been amended;
— precision has been amended; and
— test report has been amended.

This standard is published in eight parts. Other parts in this series are:

Part 1 Determination of moisture content by the direct volumetric method
Part 2 Determination of ash
Part 3 Determination of the yields of tar, water, gas and coke by low temperature distillation
Part 4 Determination of yield of benzene-soluble moisture extract — Semi-automatic method (*under revision*)
Part 5 Determination of acetone-soluble material (resinous substance) in the benzene-soluble

extract
Part 7 Determination of humic acids
Part 8 Determination of Moisture Content
Section 1 Indirect gravimetric method for total moisture
Section 2 Indirect gravimetric method for moisture in the analysis sample

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 5068-1 Brown coals and lignites — Determination of moisture content — Part 1: Indirect gravimetric method for total moisture	IS 5062 (Part 8/Sec 1) : 2018/ ISO 5068-1 : 2007 Methods of Test for Brown Coals and Lignites: Part 8 Determination of Moisture Content, Section 1 Indirect Gravimetric Method for Total Moisture	Identical
ISO 5068-2 Brown coals and lignites — Determination of moisture content — Part 2: Indirect gravimetric method for moisture in the analysis sample	IS 5062 (Part 8/Sec 2) : 2018/ISO 5068-2 : 2007 Methods of test for Brown Coals and Lignites : Part 8 Determination of Moisture Content, Section 2 Indirect Gravimetric Method for Moisture in the Analysis Sample	Identical
ISO 13909-4 Hard coal and coke — Mechanical sampling — Part 4: Coal — Preparation of test samples	IS 16143 (Part 4) : 2021/ISO 13909-4 : 2016 Hard Coal and Coke - Mechanical Sampling: Part 4 Coal Sampling from Stationary Lots (*first revision*)	Identical

The technical committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

International Standard	*Title*

ISO 18283	Coal and coke — Manual sampling

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revised*)'.

NOTE — The technical content of this document has not been enclosed as this is identical with the ISO Standard. For details, pleases refer to ISO 5072 : 2021 or kindly contact:

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