**Doc: PCD 07 (25094) F**

***भारतीय मानक***

***Indian Standard***

**IS 5062 (Part 6) : 2024**

**ISO 5072 : 2021**

**भूरा कोयला और लिग्नाइट — परीक्षण की पद्धतियाँ**

**भाग 6 वास्तविक आपेक्षिक घनत्व और प्रत्यक्ष आपेक्षिक घनत्व ज्ञात करना**

*(पहला पुनरीक्षण)*

**Brown Coal and Lignite — Methods of Test**

**Part 6 Determination of True Relative Density and Apparent Relative Density**

*(First Revision)*

ICS 73.040

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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**December 2024 Price Group X**

Solid Mineral Fuels and Solid Biofuels Sectional Committee, PCD 07

NATIONAL FOREWORD

This Indian Standard (Part 6) (First Revision) which is identical with ISO 5072 : 2021 ‘Brown coals and lignites — Determination of true relative density and apparent relative density’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Solid Mineral Fuels and Solid Biofuels Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

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 brought out to align it with the latest version of ISO 5072 : 2021, with modified title as ‘Brown Coal and Lignite — Methods of Test Part 6 Determination of true relative density and apparent relative density’

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 extract — Semi-automatic method

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* *revision*)’.