

घरेलू कोक — विशिष्टि  
(दूसरा पुनरीक्षण)

**Domestic Coke — Specification**  
( Second Revision )

ICS 75.160.10

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## FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Solid Mineral Fuels and Solid Biofuels Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

This standard was first published in 1967 under the title 'Specification for processed solid smokeless fuel' and subsequently revised in 1976 with title as 'Specification for domestic coke'. In view of nationalization of coal industry and setting up of a number of new plants for producing coke, the committee responsible for the preparation of this standard felt the need to review it to bring about proper coordination in the production practices and use of coke. Thus, first revision was taken up and the following changes were done:

- a) requirements for moisture and volatile matter were modified;
- b) requirements for calorific value was dropped; and
- c) the title of the standard was modified from 'Specification for processed solid smokeless fuel' to 'Specification for domestic coke'.

In this revision, coke sampling has been referred by IS 16143 (Part 5) and IS 16143 (Part 6) as the erstwhile referred standard IS 436 (Part 2) has been withdrawn.

The composition of the Committee responsible for the formulation of this standard is given in [Annex A](#).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard*  
**DOMESTIC COKE — SPECIFICATION**  
*( Second Revision )*

**1 SCOPE**

This standard prescribes requirements, methods of sampling and test for domestic coke.

**2 REFERENCES**

The standards given below contain provisions, which through reference in this text constitute the provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

<i>IS No.</i>	<i>Title</i>
IS 460 (Part 2) : 2020	Test sieves — Specification: Part 2 Perforated plate test sieves ( <i>fourth revision</i> )
IS 1350 (Part 1) : 1984	Methods of test for coal and coke: Part 1 Proximate analysis ( <i>second revision</i> )
IS 1354 : 1992	Methods of test for coke — Special tests ( <i>second revision</i> )
IS 3810 (Part 3) : 2023	Glossary of terms relating to solid mineral fuels: Part 3 Coke ( <i>first revision</i> )
IS 16143  (Part 5) : 2021/ ISO 13909-5 : 2016	Hard coal and coke — Mechanical sampling:  Coke — Sampling from moving Streams ( <i>first revision</i> )
(Part 6) : 2021/ ISO 13909-6 : 2016	Coke — Preparation of test samples ( <i>first revision</i> )

**3 TERMINOLOGY**

For the purpose of this standard the definitions given in IS 3810 (Part 3) shall apply.

**4 CLASSES**

There shall be 3 classes of domestic coke, namely, Class 1, Class 2 and Class 3, depending on the ash content (*see Table 1*).

**5 REQUIREMENTS****5.1 Size Range**

The ex-plant size range of the material shall be between 10 mm and 100 mm. Not more than 10 percent by mass of the material shall either pass the 10 mm IS sieve (PS) or be retained on 100 mm IS sieve (PS) [*see IS 460 (Part 2)*].

**5.2 Shatter Index**

Shatter index of the material when tested in accordance with the method prescribed in [4](#) of IS 1354, using coke of size above 25 mm, shall be as follows:

Over 25 mm, percent by mass, <i>Min</i>	65
Over 12.5 mm, percent by mass, <i>Min</i>	80

**6 SAMPLING**

Representative samples of the material shall be drawn as prescribed in IS 16143 (Part 5) and IS 16143 (Part 6).

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**Table 1 Requirements for Domestic Coke***(Clause 4)*

Sl No.	Characteristic	Requirement			Method of Test, Ref to Clause No. of IS 1350 (Part 1)
		Class 1	Class 2	Class 3	
(1)	(2)	(3)	(4)	(5)	(6)
i)	Moisture, percent by mass, <i>Max</i>	8	8	8	<b>6</b>
ii)	Volatile matter, percent by mass (on dry basis)	3 to 10	3 to 10	3 to 10	<b>7</b>
iii)	Ash content, percent by mass, <i>Max</i> (on dry basis)	30	40	50	<b>8</b>

NOTE — In the case of domestic coke made from lignite, moisture content and volatile matter not exceeding 15 percent by mass each may be permitted.

## ANNEX A

(Foreword)

## COMMITTEE COMPOSITION

Solid Mineral Fuels and Solid Biofuels Sectional Committee, PCD 07

<i>Organization</i>	<i>Representative(s)</i>
CSIR - Central Institute for Mining and Fuel Research, Dhanbad	PROF ARVIND KUMAR MISHRA ( <i>Chairperson</i> )
Bharat Coking Coal Limited, Dhanbad	SHRI SAMIR KUMAR KUNDU SHRI G. VENUGOPAL ( <i>Alternate</i> )
Bharat Heavy Electricals Limited, Tiruchirappalli	DR SIVAJI SEEPANA SHRI MANDA TEJA TARAKESH ( <i>Alternate I</i> ) SHRI AMAN SERAPHIM SURIN ( <i>Alternate II</i> )
Cement Manufacturers Association, New Delhi	SHRI RAJU GOYAL SHRI VIPUL SINGH ( <i>Alternate</i> )
Central Electricity Authority, New Delhi	SHRI S. K. THAKUR SHRI L. D. PAPNEY ( <i>Alternate</i> )
Central Mine Planning and Design Institute Limited, Ranchi	SHRI N. RAMAKRISHNA MS ZEBBA IMAM ( <i>Alternate</i> )
Central Pollution Control Board, New Delhi	SHRI NAZIMUDDIN
Central Revenue Control Laboratory, New Delhi	SHRI V. SURESH DR MAHESH KUMAR ( <i>Alternate</i> )
Coal Controller Organization, Kolkata	SHRI ANJANI KUMAR
Coal India Limited, Kolkata	SHRI SUBHASIS SAHU
CSIR - Central Institute for Mining and Fuel Research, Dhanbad	DR ASHOK KUMAR SINGH DR SUJAN SAHA ( <i>Alternate</i> )
CSIR - Institute of Minerals and Materials Technology, Bhubaneswar	DR SUDDHASATWA BASU DR D. S. RAO ( <i>Alternate I</i> ) DR MANISH KUMAR ( <i>Alternate II</i> )
CSIR - National Metallurgical Laboratory, Jamshedpur	DR SANCHITA CHAKRAVARTY MS RUPA DAS BISWAS ( <i>Alternate</i> )
Geological Survey of India, Kolkata	DR SUDIP BHATTACHARYYA
Hindalco Industries Limited, Ranchi	SHRI MIRAJUL HAQUE DR RAHUL MITRA ( <i>Alternate</i> )
Indian Council of Agricultural Research, New Delhi	DR PANNA LAL SINGH
Indian Institute of Technology (ISM), Dhanbad	DR S. BHATTACHARYA
Indian Metals and Ferro Alloys Limited, Bhubaneswar	SHRI DINESH KUMAR MOHANTY ( <i>Alternate</i> )

<i>Organization</i>	<i>Representative(s)</i>
Mahanadi Coal Field Limited, Burla	SHRI RAVIKESH KUMAR RAJU SHRI NEERAJ KALLA ( <i>Alternate</i> )
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National Council for Cement and Building Materials, Faridabad	SHRI ANKUR MITTAL SHRI GAURAV BHATNAGAR ( <i>Alternate</i> )
National Test House, Kolkata	SHRI S. K. LAHA SHRI RATUL BEZBARUAH ( <i>Alternate</i> )
Northern Coalfields Limited, Singrauli	SHRI SATISH JHA
Steel Authority of India Limited (SAIL), Research & Development Centre for Iron & Steel, Ranchi	SHRI K. K. MANJHI SHRI B. CHAKRABORTY ( <i>Alternate</i> )
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The Singareni Collieries Company Limited, Kothagudem	SHRI SYED HABEEB HUSSAIN
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*Member Secretary*  
MS ADITI CHOUDHARY  
SCIENTIST 'B'/ASSISTANT DIRECTOR  
(PETROLEUM, COAL AND RELATED PRODUCTS), BIS



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