

PRODUCTS & SERVICES :

COKING COAL :

These coals, when heated in the absence of air, form coherent beads, free from volatiles, with strong and porous mass, called coke.

- : These have coking properties
- : Mainly used in steel making and metallurgical industries
- : Also used for hard coke manufacturing

SEMI COKING COAL :

These coals, when heated in the absence of air, form coherent beads not strong enough to be directly fed into the blast furnace. Such coals are blended with coking coal in adequate proportion to make coke.

- : These have comparatively less coking properties than coking coal
- : Mainly used as blend-able coal in steel making, merchant coke manufacturing and other metallurgical industries

NLW COKING COAL :

This coal is not used in metallurgical industries. Because of higher ash content, this coal is not acceptable for washing in washeries. This coal is used for power utilities and non-core sector consumers.

NON-COKING COAL :

These are coals without coking properties.

- : Mainly used as thermal grade coal for power generation
- : Also used for cement, fertilizer, glass, ceramic, paper, chemical and brick manufacturing, and for other heating purposes

HARD COAL :

Hard coke is formed from coking / semi-coking coal through the process of carbonization.

- : Mainly used in metallurgical industries
- : Also used in industrial plants utilizing furnaces

WASHED AND BENEFICIATED COAL :

These coals have undergone the process of coal washing or coal beneficiation, resulting in value addition of coal due to reduction in ash percentage.

- : Used in manufacturing of hard coke for steel making
- : Beneficiated and washed non-coking coal is used mainly for power generation
- : Beneficiated non-coking coal is used by cement, sponge iron and other industrial plants

MIDDLINGS :

Middlings are by-products of the three stage coal washing / beneficiation process, as a fraction of feed raw coal.

- : Used for power generation
- : Also used by domestic fuel plants, brick manufacturing units, cement plants, industrial plants, etc.

REJECTS :

Rejects are the products of coal beneficiation process after separation of cleans and / or middlings, as a fraction of feed raw coal.

- : Used for Fluidized Bed Combustion (FBC) Boilers for power generation, road repairs, briquette (domestic fuel) making, land filling, etc.

CIL COKE / LTC COKE :

CIL Coke / LTC Coke is a smokeless, environment friendly product of the Dankuni Coal Complex, obtained through low temperature carbonization.

- : Used in furnaces and kilns of industrial units
- : Also used as domestic fuel by halwais, hotels, etc.

COAL FINES / COKE FINES :

These are the screened fractions of feed raw coal and LTC coke / CIL Coke respectively, obtained from the Dankuni Coal Complex and other coke oven plants.

: Used in industrial furnaces as well as for domestic purposes

TAR / HEAVY OIL / LIGHT OIL / SOFT PITCH :

These are products from Dankuni Coal Complex using low temperature carbonization of non-coking coal in vertical retorts.

: Used in furnaces and boilers of industrial plants as well as power houses, oil, dye, pharmaceutical industries, etc.

GRADATION OF COAL

A.COKING COAL

Grade	Parameter
Steel – I	Ash not exceeding 15%
Steel – II	Ash exceeding 15% but not exceeding 18%
Washery – I	Ash exceeding 18% but not exceeding 21%
Washery – II	Ash exceeding 21% but not exceeding 24%
Washery – III	Ash exceeding 24% but not exceeding 28%
Washery – IV	Ash exceeding 28% but not exceeding 35%

B.SEMI COKING COAL

Grade	Parameter
Semi Coking – I	Ash + moisture not exceeding 19%
Semi Coking – II	Ash + moisture exceeding 19% but not exceeding 24%

C.NON-COKING COAL

Grade	UHV RANGE (KCAL/KG)
A	Exceeding 6200
B	Exceeding 5600 but not exceeding 6200
C	Exceeding 4940 but not exceeding 5600
D	Exceeding 4200 but not exceeding 4940
E	Exceeding 3360 but not exceeding 4200
F	Exceeding 2400 but not exceeding 3360
G	Exceeding 1300 but not exceeding 2400

D.ASSAM COAL

Grade	UHV RANGE (KCAL/KG)
A	6200 - 6299
B	5600 – 6199

E. HARD COKE

Grade	Ash %
By Product Premium	Not exceeding 25%
By Product Ordinary	Exceeding 25% but not exceeding 30%
Beehive Premium	Not exceeding 27%
Beehive Superior	Exceeding 27% but not exceeding 31%
Beehive Ordinary	Exceeding 31% but not exceeding 36%

SUITABILITY OF COAL

E. HARD COKE

Industry	Type of Coal Required
Steel making	Coking and semi-coking coal, direct feed and washed; blendable coal; low ash % Assam and Raniganj coal
Steel making, sponge iron industry	Non-coking coal of high Initial Deformation Temperature (IDT) (>1200 degrees Celcius)
Cokeries / coke oven plants	Coking and semi-coking coal
Briquette making / domestic fuel making	Semi-coking and non-coking coal; middling & rejects of washeries
Special Smokeless Fuel (SSF)	Semi-coking coal of Coking Index 8 – 10
Power sector	Non-coking coal; middlings of coking coal washeries; washed coal of non-coking coal washeries
Cement sector	Non-coking coal; middlings of coking coal washeries
Glass and potteries	Long Flame non-coking coal
Cast iron castings	Hard coke
Steel castings	Non-coking coal
Bricks	Non-coking coal; middlings of coking coal Washeries
Old boilers	Superior grades of non-coking coal
Halwais, domestic use, hotels, etc.	Non-coking coal; CIL Coke / LTC Coke.