

METALLURGICAL COKE

LOW ASH METALLURGICAL COKE

Sesa Goa's Metallurgical Coke Division operates 84 non-polluting, non-recovery type coke ovens producing 280,000 tons of low ash metallurgical coke per annum. The coal requirement is met through imports, mainly from Australia and the coal mix is designed to produce low ash premium quality coke. Approximately 65% of the capacity of the coke oven plant is consumed in house by the blast furnaces of Sesa Industries Limited.

PROPERTIES	+70-100/ +100 mm	+50-70/ +60-90 mm	+20-70 mm	+10-25 mm	+6-15 mm	0-6 mm
Moisture % max	5	5	5	8	8	8
Ash Dry Basis % max	12/13	12	12	13	13.5	22
Volatile Matter Dry Basis % max	2/3	2	2	3	4	6.5
Sulphur Dry Basis % max	0.6	0.6	0.6	0.6	0.6	0.6
Phosphorous Dry Basis % max	0.05	0.05	0.05	0.05	0.05	0.05
Fixed Carbon Dry Basis % min	86/85	85	85	84	82.5	72
Micum 20 min	-	-	90	-	-	-
Micum 10 max	-	-	8	-	-	-
CRI NSC Method	-	-	<24	-	-	-
CSR	-	-	>62	-	-	-
Gross Calorific Value k. Cal/kg min	6750	-	6750	-	-	-

Note: + / -1 % in the above specifications permitted. Size and specifications are indicative and can be modified to suit customer requirements. Stowage factor of Coke is 56 cu ft / MT. Size: undersize: 5% max, oversize: 5% max

The analysis of coke is carried out using the following standards:

CRI & CSR	IS	4023:1991
Ash	ISO	1171:1981 (E)
Volatile Matter	ISO	562:1981 (E)
Sulphur	ISO	334:1992
Phosphorous	IS	1350:1979 (PART 5)
Micum	ISO	556:1980 (E)
Moisture	ISO	579:1981 (E)

Advantage for Blast Furnaces: are low coke rate, guaranteed CRI, CSR, Ash, sulphur and phosphorus, high fixed carbon and low volatile matter and good size gradation.

Advantages in Foundry Cupolas: are high NCK values, high metal to coke ratio, high metal temperature, high carbon pick up and good size gradation.

METALLURGICAL COKE

Advantages in Ferro Alloys: are high FC, less consumption per ton of output and good size gradation.

Advantages in Mini Cement Plants: are high FC and low ash.

The superior quality in terms of CRI and CSR is produced as a result of the relatively higher operating temperatures and longer coking cycle. A special feature of the technology is the extremely low levels of air pollution achieved as the ovens operate under negative pressure and at a temperature at which all potential pollutants are broken down into combustible compounds.

The bi-product of this process is hot gases, which is used to generate steam for power generation.

Sesa's coke is designed for the requirements of the foundries, blast furnaces, zinc smelters, cement and the Ferro alloy industry and offers advantages like consistency in quality, sizing and uniform temperature thereby reducing cold spots and metal wastage.