

CARBON STEEL MATERIALS

BHP BILLITON METALLURGICAL COAL



TYPICAL PROPERTIES - COKING COALS

Chemical Analysis		Norwich Park	Saraji	Peak Downs	Illawarra*	Riverside	Goonyella	Poitrel^	Blackwater	Gregory
Moisture (ad)	%	1.0	1.0	1.0	1.0	1.1	1.0	1.5	2.0	2.0
Total Moisture (ar)	%	10.0	10.0	9.5	10.0	9.5	10.0	12.0	10.0	8.5
Volatile Matter (ad)	%	17.3	18.7	20.7	22.5	22.5	24.3	24.0	27.5	33.0
Ash (ad)	%	9.9	10.0	10.0	9.5	10.0	8.9	8.0	8.0	7.3
Sulphur (ad)	%	0.65	0.62	0.60	0.45	0.55	0.52	0.40	0.50	0.65
CSN (FSI)		9	8.5	8.5	7.5	7.5	8	7	6	9
Phosphorus (in coal)	%	0.045	0.030	0.030	0.050	0.010	0.025	0.060	0.060	0.030
Alkali (in ash)	%	1.5	1.8	1.6	1.0	1.2	1.3	1.1	1.7	1.6
Maximum Fluidity	ddpm	100	160	400	1200	500	1100	300	600	7500
Mean Max Reflectance of Vitrinite	%	1.65	1.52	1.42	1.26	1.24	1.17	1.15	1.03	0.94
Maceral Composition										
Vitrinite	%	74	67	72	53	59	62	54	55	76
Liptinite	%	0	0	0	0	1	1	1	2	3
Semi-fusinite	%	15	21	15	37	26	25	34	30	9
Other Inertinite	%	7	8	8	7	9	8	9	9	9
Mineral Matter	%	4	4	5	3	5	4	2	4	3
NSC-Coke Strength										
After Reaction		67	74	74	73	72	68	50	35	60

Revision Date: 12 February 2009

BM Alliance Coal Marketing is responsible for the sales and marketing of these coking coals on behalf of the BHP Billiton Mitsubishi Alliance, ^BHP Mitsui Coal, and *BHP Billiton.

The typical specifications set out above are indicative only. Seller does not warrant compliance with the typical specifications and reserves the right to amend them at any time.

Information updated as of March 2009

CARBON STEEL MATERIALS

BHP BILLITON ANCILLARY COALS



TYPICAL PROPERTIES - ANCILLARY COALS

Chemical Analysis		Blackwater Weak	ULV	Poitrel PCI [^]	South Walker Weak [^]
Moisture (air dried)	%	2.0	1.0	2.0	1.1
Total Moisture (as received)	%	9.5	10.0	11.0	9.0
Volatile Matter (air dried)	%	25.5	16.5	22.0	13.5
Ash (air dried)	%	9.5	11.3	9.3	8.5
Sulphur (air dried)	%	0.50	0.65	0.40	0.37
Crucible Swelling Number		3.5	8.5	1	1
Phosphorus (in coal)	%	0.07	0.06	0.08	0.09
Alkali (in ash)	%	1.8	1.5	0.8	1.7
Hardgrove		68	90	82	84
Grindability Index					
Gross Specific Energy (ad)	Kcal/kg	7455	7560	7460	7750
Maximum Fluidity	ddpm	50	20	1	1
Mean Maximum Reflectance of					
Vitrinite	%	1.02	1.68	1.16	1.85
Maceral Composition					
Vitrinite	%	45	71	30	42
Liptinite	%	1	0	1	0
Semi-fusinite	%	40	15	58	48
Other Inertinite	%	9	8	8	7
Mineral Matter	%	5	6	3	3

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