

PIKE RIVER HARD COKING COAL

1.9% Sulphur Full Seam Indicative Specification

Total Moisture	9.0%	Coking Properties	
Proximate Analysis (adb)		FSI	8 – 9
Inherent Moisture	1.0%	Gieseler Plastometer	
Ash	1.0%	Initial Softening	395 °C
Volatile Matter	44.0%	Fusion (5 ddpm)	408 °C
Fixed Carbon	54.0%	Maximum Fluidity	438 °C
Total Sulphur	1.9%	Resolidification	477 °C
Calorific Value	8,267 kcal/kg	Plastic Range	82 °C
HGI	54	Log Fluidity	4.60
P In Coal	< 0.001%	Gray King Coke Type	G10
Ultimate analysis (daf)		Audibert Amu Dilatometer	
Carbon	84.2%	Softening	329 °C
Hydrogen	6.0%	Maximum Contraction	401 °C
Nitrogen	0.9%	Maximum Dilatation	520 °C
Sulphur	1.7%	Maximum Contraction	30%
Oxygen by Difference	7.1%	Maximum Dilatation	284%
		Total Dilatation	314%
Ash Fusion Temperature (Red)		Maceral Analysis	
Deformation	1320 °C	Vitrinite	88.4%
Hemisphere	1420 °C	Liptinite	7.3%
Flow	1490 °C	Inertinite	3.2%
		Mineral Matter	1.1%
Ash Composition (db)		Reflectance R _{0max}	0.78%
SiO ₂	16.6%	G	97
Al ₂ O ₃	11.3%	X Index	59
Fe ₂ O ₃	12.2%	Y Index	23
CaO	17.2%	DI 150/15	61.4
Na ₂ O	0.71%		
K ₂ O	0.35%		
TiO ₂	0.20%		
Mn ₃ O ₄	0.09%		
SO ₃	32.15%		
P ₂ O ₅	0.04%		