

## PASO DIABLO COAL QUALITY SPECIFICATIONS 2010

QUALITY (As received basis)	THERMAL GRADE 1	
<b>PROXIMATE ANALYSIS</b>		
Total Moisture, %	7.50	6.50 - 8.50
Ash, %	8.00	7.00 - 9.00
Volatile Matter, %	34.00	33.00 - 35.00
Fixed Carbon, %	50.50	49.00 - 52.00
Total Sulphur, %	0.75	0.65 - 0.85
Gross Calorific Value, BTU/lb	12600	12400 - 12900
KCal/kg	7000	6900 - 7200
Net Calorific Value, KCal/kg	6700	6600 - 6860
<b>GRINDABILITY INDEX (HGI)</b>		
	48	
<b>FREE SWELLING INDEX (FSI)</b>		
	5.5	
<b>EQUILIBRIUM MOISTURE, %</b>		
	4.00	
<b>ULTIMATE ANALYSIS</b>		
Total Moisture, %	7.50	
Carbon	70.00	
Hydrogen	4.90	
Nitrogen	1.30	
Total Sulphur, %	0.75	
Ash, %	8.00	
Oxygen (By Diff.)	7.55	
<b>Chlorine</b>		
	0.04	
<b>ASH FUSION TEMPERATURE</b>		
	°C (°F)	
Red. Atm. Initial Deformation	1230 (2246)	
Softening (H=W)	1260 (2300)	
Hemispherical (H=1/2W)	1310 (2390)	
Fluid	1380 (2516)	
Ox. Atm. Initial Deformation	1280 (2336)	
Softening (H=W)	1300 (2372)	
Hemispherical (H=1/2W)	1360 (2480)	
Fluid	1450 (2642)	
<b>ASH ANALYSIS</b>		
% SiO <sub>2</sub>	58.50	
% Al <sub>2</sub> O <sub>3</sub>	20.00	
% TiO <sub>2</sub>	0.95	
% Fe <sub>2</sub> O <sub>3</sub>	7.50	
% CaO	4.00	
% MgO	2.80	
% K <sub>2</sub> O	1.70	
% Na <sub>2</sub> O	0.60	
% MnO <sub>2</sub>	0.10	
% P <sub>2</sub> O <sub>5</sub>	0.25	
% SO <sub>3</sub>	3.50	
Undetermined	0.10	
<b>Phosphorous in coal, %</b>		
	0.007	
<b>SIZING (0 x 50 mm)</b>		
Round hole screens % + 50 mm	5.0	
% - 6.3 mm	43.0	