

FUEL RESEARCH CENTRE - PCSIR

KARACHI – 75280

Existing Facilities –Laboratory Tests in Coal & Related Material

Description of Test/Facilities	Standard Method
PROXIMATE ANALYSIS	
Moisture (Total)	ASTM D 3302-02
Fixed Carbon	By difference
Volatile Matter	ASTM D 3175
Moisture(Inherent)	ASTM D 3173
Ash	ASTM D 3174
ULTIMATE ANALYSIS	
Carbon	ASTM D 5373-02
Hydrogen	
Oxygen	
Nitrogen	
Sulphur	ASTM D 4239
Gross Calorific Value (GCV)	ASTM D 5865
Sieve Analysis	ASTM D 4749
ASH ANALYSIS	
Ferric/Iron Oxide (Fe_2O_3)	ASTM D 3682-91
Calcium Oxide/Lime (CaO)	
Magnesium Oxide (MgO)	
Potassium Oxide (K_2O)	
Sodium Oxide (Na_2O)	
Manganese Di Oxide (MnO_2)	
TRACE ELEMENTS/WATER ANALYSIS	
Lead (Pb)	ASTM D 3559-3
Zinc (Zn)	ASTM D 1691-02
Copper (Cu)	ASTM D 1688-02
Manganese (Mn)	ASTM D 858-02
Nickel (Ni)	ASTM D 1886-03
Cadmium (Cd)	ASTM D 3557-02
MISCELLANEOUS	
Grinding Index of Coal (HGI)	ASTM D 409-02
True Sp Gravity	ASTM D 167-93
Apparent Density	
Humic Acid Content	ASTM D 3173, ASTM D 3174 ASTM D 3175
R&D PRODUCTS	
Environment Friendly Coal Briquettes	
Humic Acid (Liquid)	
Humic Acid (Solid)	