

Microwave Moisture Analyzer Rapid Coal Moisture Loss On Drying Determination System

Item Number: KT-TE39



Introduction

Engineered for rapid coal quality testing, this microwave moisture analyzer delivers automated loss on drying measurements. Process nine samples within twenty minutes with integrated analytical precision weighing, dynamic digital control, and compliance with testing standards.

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Application	Description	Key Benefit
Thermal Power Generation	Rapid testing of pulverized coal and raw boiler feedstocks to calculate net calorific values and adjust air-fuel ratios in real time.	Mitigates boiler heat losses and prevents billing discrepancies on high-volume fuel deliveries.
Commercial Coal Inspection	Third-party inspection and certification of coal shipments during rail, barge, and vessel transfer operations.	Delivers certified total moisture and analytical moisture data in under 20 minutes for trade settlements.
Coal Beneficiation and Washing	Monitoring moisture content in washed coal slurries, filter cakes, and dewatered fines across preparation plants.	Enables closed-loop optimization of dewatering centrifuges and screen presses to maximize product yield.
Coking and Metallurgical Plants	Evaluation of coking coal blends and pulverized coal injection (PCI) fuels prior to charging blast furnaces and coke ovens.	Ensures precise carbon input calculations, avoids thermal shock in refractory walls, and stabilizes coke quality.
Mining Quality Laboratories	Pit-side and processing facility screening of run-of-mine bulk coal samples across exploration and active extraction veins.	Provides rapid operational feedback to mining engineers for grading coal seams and managing blending stockyards.
Solid Fuel and Biomass Testing	Moisture screening of blended solid recovered fuels, coal-biomass co-firing mixtures, and industrial solid fuels.	Accommodates variable moisture content profiles with high repeatability and minimal preparation overhead.

Parameter	Specification (Model: KT-TE39)
Rated Operating Voltage	(220 ± 22) V AC, (50 ± 1) Hz
Microwave Drying Oven Input Power	≤ 1400 W
Microwave Drying Oven Output Power	≤ 900 W
Microwave Operating Frequency	2450 MHz
Infrared Dryer Power	≤ 1200 W
Integrated Electronic Balance Capacity	≤ 240 g
Balance Readability / Sensitivity	0.001 g (0.001% precision)
Total Moisture Sample Mass (\$M_t\$)	(10 ± 1) g (Particle size: < 6 mm)
Analytical Moisture Sample Mass (\$M_{ad}\$)	(1 ± 0.1) g (Particle size: ≤ 0.2 mm)
Testing Capacity per Cycle	9 single specimens / batch
Complete Analysis Time	Typically ≤ 20 min per batch
Measurement Precision Standards	Conforms to GB/T 15334 and GB/T 211
Operating Temperature Range	0 °C to 40 °C

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Operating Relative Humidity	≤ 85% RH (non-condensing)
System Dimensions (W × D × H)	510 mm × 380 mm × 540 mm
Integral Subsystems	Microwave drying cavity, balance, mechanical drive, microcomputer board, LCD, micro-printer