

Coal Ignition Point Tester For Spontaneous Combustion
Tendency Determination

Item Number: KT-TE51



Introduction

Optimize coal safety and spontaneous combustion risk assessment with this high-precision coal ignition point tester featuring automated thermal analysis, real-time curve plotting, and strict compliance with GB/T 18511 standards for mining and power generation operations.

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Application	Description	Key Benefit
Coal Mine Safety & Storage Management	Screening raw run-of-mine coals and stored stockpiles to classify coal seams by spontaneous combustion propensity and open-air fire risk.	Prevents disastrous underground gob fires and stockpile losses through predictive hazard grading.
Thermal Power Generation Facilities	Evaluating raw pulverized coal feeds, blended fuel mixtures, and long-term bunker storage for utility boilers prior to pulverization.	Mitigates spontaneous ignition in coal mills, feed bunkers, and conveying systems while optimizing fuel blending strategies.
Bulk Marine & Rail Logistics Terminals	Testing high-volume export and import coal cargoes at port loading docks and rail distribution yards before long-distance transit.	Assures international shipping compliance and prevents self-heating events during lengthy maritime voyages.
Coking & Metallurgical Processing	Assessing specialized coking coal blends and carbonaceous additives for high-temperature stability and pre-combustion reactivity.	Protects coking battery intake silos from premature combustion while maintaining consistent blend chemistry.
Combustion Research & Academic Institutions	Investigating the fundamental oxidation kinetics, structural reactivity, and chemical inhibitor treatments of various coal ranks.	Yields high-precision thermal curves (0.1°C resolution) that support peer-reviewed combustion science and inhibitor formulation.
Environmental & Loss Prevention Auditing	Performing regulatory compliance assessments to verify that storage techniques satisfy national industrial fire prevention mandates.	Generates defensible, automated documentation aligned with standard testing protocols to satisfy insurance underwriters.

Parameter Category	Specification Attribute	Value / Tolerance (KT-TE51)
Core Identification	Product Model Designation	KT-TE51
Standard Compliance	Reference National Testing Standard	GB/T 18511-2001
Temperature Performance	Temperature Control Operating Range	0°C to 500°C
	Thermal Resolution	0.1°C
	Linear Heating Rate	5 ± 1°C/min
	Test Repeatability Error	≤ 6°C
	Temperature Measurement Element	High-Precision Thermal Resistance (RTD)
Chronological Tracking	Timing Range	0 to 999 min
	Timing Measurement Resolution	0.1 min
Electrical Specifications	Power Supply Rating	AC 220V ± 10%, 50 Hz
	Maximum Power Consumption	≤ 1.2 kW
Automation & Interface	System Control Architecture	Integrated Microcomputer / PC System
	Data Output Functions	Automatic Curve Plotting, Ignition Judgment, Report Printing

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Operating Environment	Ambient Operating Temperature	0°C to 40°C
	Relative Humidity Range	≤ 85% RH (non-condensing)
	Electromagnetic Interference Requirement	Install away from strong electrical or magnetic interference sources