

Ash Fusion Tester Accessories And Coal Ash Fusibility Determination Consumables

Item Number: KT-GT



Introduction

Discover precision ash fusion tester accessories including silicon carbide heating elements corundum combustion boats standardized cone molds and refractory support plates engineered for accurate coal ash fusibility determination in thermal energy metallurgy and industrial laboratory testing applications.

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Application	Description	Key Benefit
Coal-Fired Power Plant Fuel Testing	Routine analysis of pulverized coal ash fusibility to evaluate potential slagging and boiler tube fouling propensities.	Prevents boiler clinkering by delivering reproducible softening and fluid temperature data under simulated furnace atmospheres.
Commercial Coal Quality Inspection	Independent certification and quality grading of domestic and export coal shipments according to standardized thermal parameters.	High geometric consistency of molded cones ensures strict compliance with ISO, ASTM, and GB/T procedural requirements.
Gasification Feedstock Characterization	High-temperature mineral evaluation of entrained-flow and fixed-bed coal gasifier feedstocks under strict reducing atmospheres.	Corundum support trays resist harsh syngas reduction and molten slag penetration, safeguarding optical clarity during fluid phase tracking.
Metallurgical Coke and Sinter Assessment	Evaluating ash melting dynamics of coking blends and blast furnace pulverized coal injections to optimize tuyere combustion.	Minimizes molten iron oxide penetration into the refractory substrate, extending corundum boat service life during aggressive melting cycles.
Biomass and Co-Firing Ash Dynamics	Analyzing dynamic melting characteristics of blended biomass fuels featuring high potassium, phosphorus, and sodium concentrations.	Dense refractory alumina surfaces resist reactive alkali silicate glass corrosion that typically destroys standard laboratory ceramics.
Boiler Slagging and Fouling R&D	Advanced university and institutional research into synthetic mineral transformations, ash viscosity, and phase transition behavior.	Symmetrical silicon carbide heating profile provides a stable, gradient-free thermal zone across the entire observation window.
Waste-to-Energy Incineration Profiling	Assessing thermal fusion characteristics of municipal solid waste and hazardous residue ash to optimize furnace grates and slag taps.	Chemically stable materials prevent unwanted eutectic interactions between specialized waste minerals and analytical hardware.
Industrial Boiler Combustion Optimization	Evaluating coal blending ratios for industrial steam generation to ensure operating temperatures remain safely below ash deformation points.	Rapid component swap-out and dependable thermal endurance maximize daily laboratory sample throughput without baseline drift.

Product Item Number	Component Description	Primary Material	Critical Dimensions	Functional Specification
KT-GT-SIC	Ash Fusion Silicon Carbide Tube	Dense Reaction-Bonded SiC	ID 70 mm, OD 80 mm, Length 500 mm	Primary electrothermal heating zone, uniform radiation field
KT-GT-CB	Ash Determination Corundum Boat	High-Purity Recrystallized Alumina (Al ₂ O ₃)	300 mm (L) × 40 mm (W) × 18 mm (H)	Thermal container with 22 mm center groove for tray location
KT-GT-CM	Coal Ash Cone Preparation Mold	High-Strength Tool Alloy / Precision Polymer	Produces 7 mm base × 20 mm height cones	Standardized triangular pyramid cone geometry formatting
KT-GT-ST	Ash Cone Support Tray / Plate	Dense Sintered Alumina Refractory	40 mm (L) × 20 mm (W) × 5 mm (Thickness)	High-flatness substrate for direct ash cone placement and observation