Coal Ash Fusibility Tester Accessories And Ash Fusion Point Consumables

Item Number: KT-HR

Introduction

Optimize coal ash fusibility testing with high purity ash fusion point accessories engineered for exceptional thermal stability up to 1600°C. Premium corundum trays, observation tubes, and cone molds guarantee repeatable deformation temperature monitoring in oxidizing and reducing furnace environments.

Learn More

Application	Description	Key Benefit
Thermal Power Boiler Monitoring	Evaluating slagging and fouling propensities of pulverised coal blends by monitoring ash melting behavior up to 1500°C.	Eliminates cross-contamination between consecutive test runs, providing reliable slagging indices to protect water-wall tubes.
Commercial Testing and Quality Certification	High-throughput ash fusibility testing in accredited coal inspection and third-party commercial verification laboratories.	Ensures dimensional conformity and repeatable deformation temperature readings across ISO, ASTM, and national regulatory standards.
Coal Gasification Facility Control	Characterizing fuel fluxing behavior and eutectic melting thresholds under tightly controlled reducing gas atmospheres.	Non-porous ceramic surfaces prevent catalytic slag reactions, accurately identifying fluid thresholds for optimal slag tapping.
Metallurgical Coke and Blast Furnace Operations	Analyzing coal ash mineral composition and fusion kinetics to optimize tuyere combustion and liquid slag viscosity.	High thermal mechanical stability prevents tray sagging under heavy ash loads, ensuring flat baseline reference planes.
Waste-to-Energy and Biomass Co-Firing	Investigating low-melting alkali ash behavior and eutectic phase formation in municipal solid waste and agricultural biomass fuels.	Corrosion-resistant refractory matrix tolerates aggressive sodium, potassium, and chloride vapors without surface spalling.
Cement Rotary Kiln Fuel Optimization	Assessing fuel ash-clinker interactions and alternative fuel suitability in high-temperature cement production kilns.	Extended thermal endurance reduces consumable replacement frequency during high-frequency industrial quality control cycles.

Component Identifier	Component Type	Material Grade	Max. Service Temp. (°C)	Bulk Density (g/cm³)	Apparent Porosity (%)	Standard Dimensions / Form Factor	Applicable Standards
KT-HR-TP	Ash Cone Support Plate	Recrystallized Al2O3 (≥99.2%)	1650	≥3.90	≤0.5	80 mm × 50 mm × 4 mm (Multi-cone slot)	ASTM D1857, ISO 540, GB/T 219
KT-HR-FT	Furnace Reaction / Observation Tube	High-Alumina Corundum (≥99.0%)	1600	≥3.85	≤1.0	OD 60 mm × ID 50 mm × L 450 mm	ISO 540, DIN 51730, GB/T 219
KT-HR-CM	Ash Cone Mold	Stainless Tool Steel / Brass	120	N/A	N/A	Triangular pyramid: H 19 mm, Base 6.4 mm	ASTM D1857, ISO 540, GB/T 219
KT-HR-TC	Thermocouple Protection Sheath	Impermeable Corundum (≥99.5%)	1700	≥3.92	≤0.2	OD 10 mm × ID 6 mm × L 350 mm	IEC 60584, ASTM E230
KT-HR-QW	Optical Viewing Window	Fused Quartz (SiO2 ≥99.99%)	1200	2.20	0.0	Ø 35 mm × 3 mm polished disc	ASTM D1857, ISO 540
KT-HR-SC	Atmosphere Sealing Plug & End Cap	Dense Alumina-Mullite Composite	1500	≥2.80	≤6.0	Custom tapered fit for KT-HR-FT tube ends	ISO 540, GB/T 219