APPARATUS FOR REACTIVITY OF QUICKLIME AZA0809

The AZA0809 Quicklime Reactivity Apparatus is a precision laboratory system designed to evaluate the thermal reactivity of quicklime (CaO) during the slaking process.

When quicklime reacts with water, it releases heat in an exothermic reaction. By accurately measuring the temperature rise over time (ΔT), the apparatus enables assessment of reactivity rate, purity, and fineness—critical parameters for industrial applications.

This equipment is widely used in lime processing plants, cement industries, construction material laboratories, metallurgical facilities, and research institutions, where consistent material performance is essential.

Key Features

- Quality control in lime production
- Reactivity testing of quicklime for cement and pozzolanic applications
- Soil stabilization material evaluation
- Water treatment chemical assessment
- Metallurgical process control
- Research and academic studies on lime reactivity
- Comparative analysis of quicklime grades

Standards & Compliance

- IS 1514:1990
- ASTM C110

Product Features & Benefits

- High Sensitivity Measurement

Detects subtle variations in heat evolution for accurate reactivity analysis.

- Complete Testing Setup

Supplied with reaction flask, thermometer, insulated chamber, stirrer, and support system.

- Standards-Compliant Design

Fully aligned with IS and ASTM testing methodologies.

- Precision Temperature Monitoring

High-accuracy thermometer ensures reliable ΔT measurement.

- Thermally Insulated Chamber

Minimizes heat loss, improving measurement accuracy.

- Durable Construction

Uses laboratory-grade borosilicate glass and corrosion-resistant materials.

- Optional Digital Integration

Supports advanced data logging and automated temperature recording.

- Compact & User-Friendly

Bench-top design suitable for routine QC and research use.

TECHNICAL SPECIFICATION

Parameter	Details
Model	AZA0809
Equipment Type	Quicklime Reactivity Test Apparatus
Reaction Flask	500 mL Borosilicate Glass
Temperature Range	−10°C to +110°C
Temperature Accuracy	±0.1°C
Stirring Mechanism	Manual / Magnetic (Optional)
Insulation System	Double-Wall Chamber with Thermal Jacket
Measurement Method	Temperature Rise (ΔT) vs Time
Standards Compliance	IS 1514:1990, ASTM C110
Optional Accessories	Digital Temperature Probe, Data Logger, pH Probe
Dimensions	Approx. 300 × 200 × 250 mm
Application	Quicklime Reactivity Testing

Interpretation Guidance

- Rapid temperature rise (>60–70°C within 3–5 minutes) → High reactivity, high-quality quicklime
- Slow or low temperature rise → Lower reactivity or impurities