

Autoignition Temperature of Liquid Chemicals



Test Method

Determines the lowest temperature at which the vapors of a liquid or solid chemical sample will self-ignite under prescribed laboratory conditions. The temperatures at which 'cool flame' and 'hot flame' ignitions occur, as evidenced by sudden temperature increases in the sample flask, are measured and recorded, and the delay time between introduction of the sample and ignition is timed.

Autoignition Apparatus

- Conforms to ASTM E659 specifications
- Digital furnace temperature control
- Digital flask temperature display

Modified crucible furnace with digital thermocouple readout of flask temperature at prescribed points per ASTM specifications. Furnace provides rapid response and $\pm 1^{\circ}\text{C}$ stability throughout the operating range from Ambient to 1200°C . Cylindrical heating chamber provides excellent radial temperature uniformity. Furnace cover has ports for flask exterior thermocouples, and a borosilicate glass thermocouple tube is provided to assure correct positioning of the gas temperature thermocouple inside the test flask. Thermocouples plug directly into the furnace control unit for quick disconnection when removing the flask. A hinged holder in the cover facilitates handling of the test flask. Adjustable mirror permits safe viewing of the flask interior during testing. Touch Screen Control panel has temperature controls and digital thermocouple readout with all temperatures displayed on single screen.

Specifications

Conforms to the specifications of: ASTM E659
Temperature Range: Ambient to 1200°C
Temperature Control: digital setpoint touch screen control panel accurate to within $\pm 1^{\circ}\text{C}$
Flask Temperature Display: 0 - 1200°C , via Touch Screen Control Panel
Electrical requirements: 220-240V 50/60Hz, Single Phase, 7.7A

Included Accessories

Test Flask, 500 mL
Thermocouples (4)

Dimensions

WxDxH (in): 37x17x25
WxDxH (cm): 94x43.2x63.5
Net weight: 85 lbs (38.6 kg)

Shipping Information

WxDxH (in): 48x48x32
WxDxH (cm): 122x122x81.3
Shipping weight: 125 lbs (56.7 kg)

Ordering Information

Catalog No.

K47001

Autoignition Apparatus,
220-240V 50/60 Hz

Accessories

360-001-000

Syringe, 1mL

K470-0-1-14

Needle 6", stainless steel

374-115-001

Hot Air Gun, 115V 60Hz

374-230-001

Hot Air Gun, 220-240 50/60Hz