

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
- Touch Screen Display
- 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 1000°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. and is displayed on the liquid crystal display in picosiemens per meter (pS/m). This data is then stored in non-volatile memory and can be retrieved until the next read.

ordering information

catalog no.	description
K47001	Autoignition Apparatus, 220-240V 50/60 Hz

accessories

362-001-000	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
332-003-008	Quartz Test Flask, 500mL
K470-0-1-8	Quartz Thermocouple Guide



K47001 Autoignition Apparatus

specifications

Conforms to the specifications of: ASTM E659
Temperature Range: Ambient to 1000°C
Temperature Control: digital setpoint touch screen control panel accurate to within $\pm 1^\circ\text{C}$
Flask Temperature Display: 0 - 1000°C , via Touch Screen Control Panel

Electrical requirements:

220-240V 50/60Hz, Single Phase, 7.7A

Included Accessories

Test Flask, 500 mL
Thermocouples (4)
Data Acquisition Software
Mirror

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)