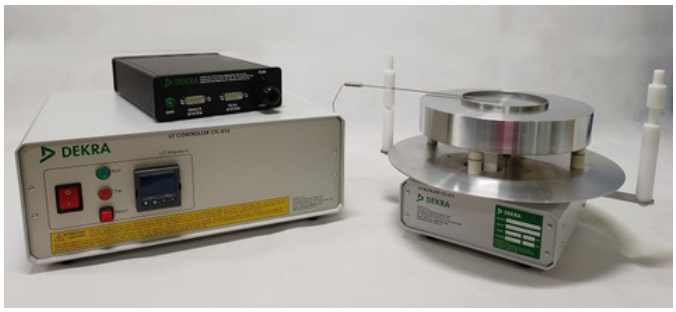
CTL15 - Layer Ignition Temperature Apparatus

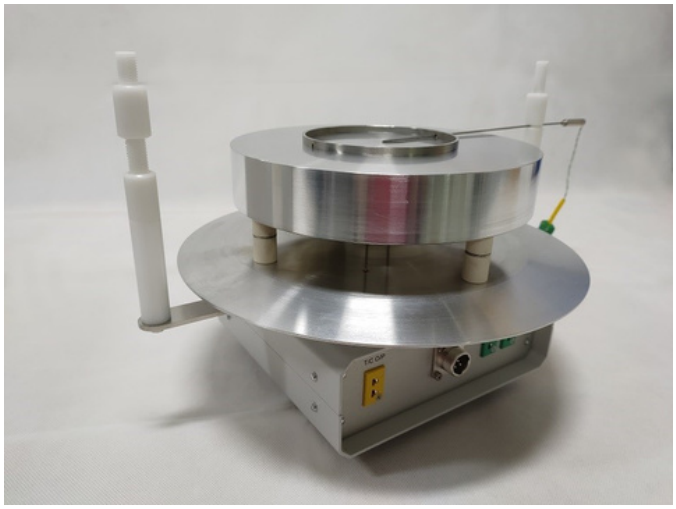
Data Sheet

Determines the minimum ignition temperature for a given thickness of powder deposited on a hot surface.

The Layer Ignition Temperature test apparatus finds the minimum ignition temperature of a given thickness of powder deposited on a hot surface. The method is used for the specification of the temperature rating of electrical equipment for use in hazardous areas (dusty atmospheres). It is also relevant to other industrial equipment where dust is present on hot surfaces in thin layers exposed to the atmosphere. Our equipment is designed to be in accordance with standards BS EN 50281-2-1, ISO/IEC 80079-20-2 and ASTM E2021.



Layer Ignition Test Apparatus



Layer Ignition Test Hotplate

Benefits

- Designed for testing to ISO/IEC 80079-20-2, EN 50281-2-1 & ASTM E2021 for specifying the maximum surface temperature of electrical and non-electrical equipment
- Tests can be performed on a range of samples including 5, 12.5 or 15 mm depths (other depths available optionally)
- Simple installation
- Data recording
- Compact in size
- Novel sloping edge shield design located under the hotplate surface to permit expanding samples to run down into a drip tray located under the hot-plate unit (drip tray not supplied as standard)

Functional specification

- Layer Ignition Hotplate (1250 W/6 A, 220-240 V (100-120 V via transformer option)) single phase 50/60Hz. Temperature range = 0-500 °C(default limit set to 400°C. ASTM standard only has a max temperature requirement of 500°C)
- Remote controller unit (incorporates PID temperature control). Sample may be ramped in temperature or held isothermally. Software Programmable
- K-type thermocouple and extension cable for both hotplate and sample
- 5mm, 12.5 mm, 15 mm sample retaining rings supplied (100 mm diameter)
- LIT Data acquisition application hardware and software and mini PC (with LIT software pre-installed)

Optional extras

- 200 µm sieve and catchment tray with lid
- Spare sample retaining rings (rings of any height may be fabricated for you)
- Spare thermocouples
- Calibration services
- Training services (Functional remote training of apparatus - 2 hours max)
- Custom data acquisition for multiple hotplates

Location requirements

HOT PLATE	Requires locating inside a fume extraction cupboard/hood
CONTROLLER	Interconnects via the supplied cable (cable length nominally 2 metres long) so can be located within an area adjacent to the fume cupboard (cables normally passed through gland in fume cupboard wall). The data acquisition card and mini PC should be located on shelving close to (within 2 metres of the control unit), and adjacent to, the fume hood, in order to keep these components clean and in the main lab area.
DIMENSIONS	Hotplate footprint: 35cm (l) x 14cm (h) x 30cm (w) Hotplate controller footprint: 37cm (l) x 15cm (h) x 30cm (w) Data acquisition card footprint: 24cm (l) x 6cm (h) x 17cm (w)

DEKRA Organisational & Process Safety

Contact

DEKRA Organisational and Process Safety are a behavioural change and process safety consultancy company. Working in collaboration with our clients, our approach is to assess the process safety and influence the safety culture with the aim of making a difference.
In terms of behavioural change, we deliver the skills, methods, and motivation to change leadership attitudes, behaviours, and decision-making among employees. Supporting our clients in creating a culture of care and measurable sustainable improvement of safety outcomes is our goal. The breadth and depth of expertise in process safety makes us globally recognised specialists and trusted advisors. We help our clients understand and evaluate their risks, and we work together to develop pragmatic solutions. Our value-adding and practical approach integrate specialist process safety management, engineering, and testing. We seek to educate and grow client competence in order to provide sustainable performance improvement. Partnering with our clients, we combine technical expertise with a passion for life preservation, harm reduction and asset protection.
We are a service unit of DEKRA SE, a global leader in safety since 1925 with over 48,000 employees in 60 countries and five continents. As a part of the world's leading expert organisation DEKRA, we are the global partner for a safe world.
We have offices throughout North America, Europe, and Asia.

For more information visit
www.dekra-uk.co.uk

+44 (0)23 8076 0722
instruments-uk@dekra.com

Would you like more information?

Contact