

LIT APPARATUS

DETERMINATION OF THE MINIMUM
IGNITION TEMPERATURE OF A DUST LAYER

Model: LIT-4

ver. 3.1, 2020

STANDARD REFERENCES:

- EN 50281-2-1 : Methods for determining the minimum ignition temperatures of dust. Method A: Dust layer on a heated surface at a constant temperature.
- ASTM E2021: Standard test method for hot-surface ignition temperature of dust layers.
- IEC 61241-2 replaced by ISO/IEC 80079-20-2:2016. Electrical apparatus for use in the presence of combustible dust. Test methods: Methods for determining the minimum ignition temperatures of dust.
- ISO/IEC 80079-20-2:2016 Explosive atmospheres. Material characteristics. Combustible dusts test methods



HEATING PLATE BLOCK SPECIFICATION:

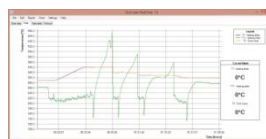
| | |
|-----------------------------|--------------------------------------------------------------------------|
| Heating plate unit | aluminum alloy corrosion protection |
| Body | stainless steel thermal protection |
| Heating plate thermocouples | type K Inconel shield silicone cables |
| Dust layer thermocouple | type K vertical adjustment |
| Dust rings | ∅100 stainless steel 5mm, 12,5mm, 15mm other dimensions (optional) |
| Temperature | up to 450°C |
| Power supply | 110 or 230VAC 800 VAC |

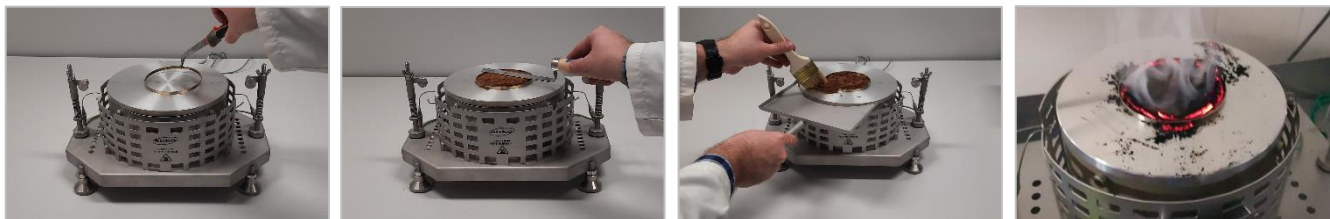
CONTROL & DATA ACQUISITION BLOCK:

| | |
|--------------------------|-----------------------------|
| Heating plate controller | PID type |
| LED thermometer | dust layer heating plate |
| Data output | Ethernet connection |

ANKO ReqTemp® DATA ACQUISITION SOFTWARE:

| | |
|--------------------------|----------------------------------------|
| Temperature registration | long periods |
| Sampling speed | user defined, from 1s |
| Data format | txt |
| On screen operation | enlargement of selected data |
| Printing | test report diagram printing |
| Data fields | sample description test description |
| Temperature Calibration | procedure available within software |





HEATING PLATE TESTS INSTRUMENT:

- temperature gradient measurement on the heating plate
- stainless steel 650g weight
- stainless steel stand
- one thermocouple type K installed at the end of the glass rod



ACCESSORIES:

- Dust layer thermocouple, type K - 1 pcs.
- Paintbrush & spatula, accessories for cleaning.
- Glass rod - 1 piece.
- Dust rings - 5 pcs.
- Manuals : instruction/maintenance manual, installation guide

ADDITIONAL OPTIONS – TO BE QUOTED SEPARATELY:

- Thermometers with accuracy = 0,1%FS.
- Custom size dust rings.
- Additional type K thermocouples, for heating plate and dust layer.
- Thermocouple calibration, accredited laboratory certificate.
- PC computer - laptop or desktop. Recommend laptop, 17" screen.
- Training services and installation assistance on-site.

The specifications given in this document represents the state of engineering at the time of publishing. We reserve the right to make modifications to above specifications.

