

# THERMAL STABILITY DETERMINATION AT 75 °C

## Product Datasheet

Thermal stability test characterizes response of given energetic materials to thermal shock. This test is based on the determination of exothermal decomposition of explosive sample by means of the temperature sample increase during the long term heating in the oven at constant temperature.

### INSTRUMENT DESCRIPTION

The instrument consists of electric oven, main unit, temperature sensors and closed flat-bottomed glass tubes. The oven is equipped with ventilation and temperature controller that maintains homogeneous temperature field at predefined temperature (75 °C with tolerance  $\pm 2$  °C). The oven is equipped by independent alarm circuits which switch-off the heater in case increasing of temperature of the sample due to thermal decomposition. The sample and reference materials are inserted in glass test tubes inside an oven. The main unit records temperature inside the sample, temperature of the outer surface of sample test tube and the temperature inside the reference material. The maximum and minimum value of oven temperature and maximum temperature difference between samples and reference material is recorded. All measured temperatures are displayed, recorded continuously and may be transferred to personal computer if desired. In case the temperature exceeds predefined limit (3 °C) the main unit turns off the oven.

### APPLICATIONS

Instrument for **Thermal stability determination at 75 °C** is designed to comply with requirements of the following standards of testing:

- UN Recommendation on the Transport of Dangerous Goods, Manual of Tests and Criteria, United Nations, New York, 1999, Test 3(c)
- EN 13631-2:2002, Explosives for civil uses - High explosives - Part 2: Determination of thermal stability of explosives

### STANDARD INSTRUMENT PARTS

TST-25	Electric oven with ventilation, max. temperature 99 °C
TST-MU	Main Unit including datalogger and alarm unit, OM-link software for PC communication
TST-TSHT	Temperature sensor, resistance up to 150 °C
TST-TT	Test tubes with accessories, resistance up to 150 °C

### SHIPPING DATA

Package dimensions: L x W x H: TBD
Brutto weight: TBD
Netto weight: TBD
Custom code: 9031 20 00

Typical sample weight: 100 g

