

HEATING BLOCKS

FOR TESTING THERMAL STABILITY

Thermal and chemical stability is vital for the safe manufacture, storage, transportation and use of energetic materials. OZM Research offers a wide range of instruments for the determination of the thermal and chemical stability for all types of energetic materials. Whether concerning quality control, hazardous materials or in-service surveillance OZM Research has the most reliable and highest quality thermal stability testing equipment.



ABT – Abel Heat Tester

APPLICATIONS

Traditional tests for the determination of the chemical stability of energetic materials (mainly propellants) are based on heating samples at elevated temperatures and detecting their reactive decomposition products (NO_x). This detection can be based on the visual identification of colored gases above the sample (Heat Storage Test at 100 °C), a color change of indicator papers (Abel Test, Methyl Violet Test), the titration of acidity in a water extract of the gases (Bergmann-Junk Test) or the determination of weight loss (Holland Test). Also, heating samples at elevated temperatures are used for the artificial aging of propellants (STANAG 4117, AOP-48).

All testing devices for thermal stability consist of temperature controllers and heating blocks (each containing from 4 to 45 appropriately sized holder holes). Customized glass test tubes are supplied with each instrument.

ADVANTAGES & FEATURES

- ▶ Customized heating blocks available upon request
- ▶ High precision and accuracy of the heating block temperature
- ▶ Fast operation time and proven testing procedures
- ▶ Independent alarm circuit (limit controller) for additional temperature control

LIST OF AVAILABLE HEATING BLOCKS

- ▶ **ABT** ABEL heat test apparatus
- ▶ **BeJu** BERGMANN-JUNK apparatus
- ▶ **MVT** METHYL VIOLET apparatus
- ▶ **HBA** Heating block for accelerated aging
- ▶ **HTEST** Dutch weight loss test (HOLLAND TEST)
- ▶ **CH 100** Instrument for heat storage test at 100 °C

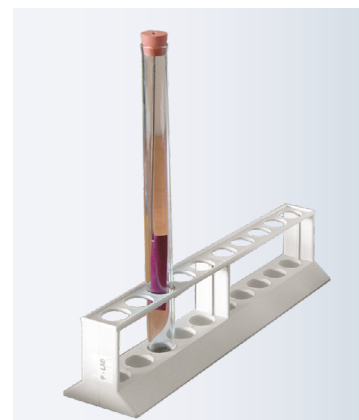
Others upon request.

COMPLIANCE

- AOP 7 and 48
- DEFSTAN 13-189/1
- MIL-STD 286C
- STANAG 4117, 4178, 4527, 4541 and 4620
- TL 1376-0600
- UK M28/89



BeJu – Bergmann-Junk Tester



MVT – test tube



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