

THERMOGRAVIMETRIC ANALYSIS (TGA)

MANUFACTURER : TA Instruments

MODEL : Q500

Specifications

- Maximum sample weight: 1 g
- Weighing precision: $\pm 0.01\%$
- Sensitivity: 0.1 μg
- Baseline dynamic drift: $<50 \mu\text{g}$ (50 to 1000°C at 20°C/min)
- Temperature range: ambient to 1000 °C
- Isothermal temperature accuracy: $\pm 1 \text{ }^\circ\text{C}$
- Isothermal temperature precision: $\pm 0.1 \text{ }^\circ\text{C}$
- Controlled heating rate: 0.01 to 100 °C/min
- Furnace cooling (force air/nitrogen): 1000 to 50 °C < 12 min
- Purge gas system with mass flow controllers
- Atmosphere: air, nitrogen
- Optional modes: Hi-Res TGA, Auto Stepwise TGA, modulated temperature TGA (MTGA)
- Optional gas analysis furnace (EGA) for characterization by TD-GC/MS of volatile organic compounds outgassed from various materials

Applications

- Measure changes in weight in relation to a temperature program in a controlled atmosphere

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Example

TGA curve for a solder flux in an inert atmosphere

