

## Thermal Analysis

# TGA 8000

## Thermogravimetric Analyzer



The TGA 8000™ Thermogravimetric Analyzer delivers the answers you need with less effort than you ever thought possible. With a highly efficient autosampler, low mass furnace for fast scanning and rapid turnaround, and a design that makes coupling to other instruments easy, the TGA 8000 offers a wide range of features to enhance performance. Whether you're researching new materials or ensuring the quality of your products, the TGA 8000 delivers great results, all day and every day.

### TGA 8000 Specifications

Design		A vertical design with a high sensitivity balance and quick response furnace. The balance is located above the furnace and is thermally isolated from it. A precision hang-down wire is suspended from the balance down into the furnace. At the end of the hang-down wire is the sample pan. The sample pan's position is reproducible.
Balance	Sensitivity	0.1 µg
	Capacity	1300 mg
	Accuracy	Better than 0.02%
	Precision	0.01%
Temperature	Furnace	Low mass (<10 g); Platinum heating element with ceramic protective coating; resistant to inert and oxidative gas over the full temperature range
	Range	-20 °C to 1200 °C
	Scan rates	0.1 °C/min to 500 °C/min
	Precision	±1 °C
Cooling	Method	Forced air cooled with an external fan
	Cycle time	1100 °C to 50 °C <13 min
Sample Pans		Platinum or ceramic (60 µL)
Volatile Analysis	Optional	AccuPik accessory pierces a hole seconds before the run to avoid evaporation and change in volatiles content

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Atmosphere	Sample environment	Static or dynamic, including nitrogen, argon, helium, carbon dioxide, air, oxygen, or other inert or reactive gases. Analyses done at normal or reduced pressures.
	Gas Control	Balance purge (Mass-flow controlled); Sample purge (switch between 2 gases; Mass-flow controlled); Reactive purge
	Gas Mixing (optional)	Up to 3 gases
	Vacuum	10 <sup>-5</sup> Torr
Autosampler		48-position
Software	Instrument control	Windows PC with Pyris Software; Local control via iPhone® and iPad®
	Pyris Player	Built into Pyris software, this feature allows autosampler control and automatic data analysis.
	AutoStepwise TGA	Advanced software package that automatically determines start and end points of a weight loss and switches between various heating rate and isothermal steps to optimize analysis.
	Variable Rate TGA	Advanced software package that continuously modifies heating rate based on the rate of weight loss. This may improve resolution of overlapping weight loss processes.
	TGA Decomposition Kinetics	Advanced software package that provides the capability of determining the kinetics of decomposition based on TGA data taken at several (3 to 6) heating rates.
	Enhanced Security	Optional advanced software package for technical compliance to 21 CFR Part 11
Hyphenation	Optional	PerkinElmer is the single source for temperature controlled transfer lines; FTIR, MS, GC-MS detection systems; software and support
Dimensions (HxWxD)		44 x 43 x 43 cm
Weight		26 Kg (57 lbs.)
Power Requirements		100 to 240 Volt, 50/60 Hz