Key Technical Data

NETZSCH

TG 209 ***F1*** *Libra*®	
Design	Top-loading
Temperature range	(10°C) RT to 1100°C
Heating rate	0.001 K/min to 200 K/min
Cooling time	In nitrogen: ≈ 12 min from 1100°C to 100°C In helium[1]: ≈ 5 min from 1000°C to 100°C
Max. sample weight/ measuring range	2 g (including crucible)
TGA resolution	0.1 µg
Motorized sensor	Motorized sensor for easy and safe handling
Interchangeable sample carriers	For standard applications, high-volume samples and large masses; high sensitivity for functions such as c-*DTA*®; special coatings for high resistance to corrosive gases
Vacuum-tightness	10^{-2} mbar (1 Pa)
Gas atmospheres	Inert, oxidizing, reducing, measurements under vacuum (for tests such as rubber analysis)
Gas flow control	Three integrated mass flow controllers for purge and protective gases
AutoVac	Automatic evacuation and refilling of purge gas (optional)
Temperature calibration	c-*DTA*®, also for detection of endo- and exothermal effects; Curie standards
Crucibles	Pt, Al_2O_3, Au, SiO_2, Ag, ZrO_2, Al, etc.; more upon request.
Automatic sample changer (ASC)	Up to 192 samples (optional); various crucible types in one tray
Software	▪ Comprehensive evaluation routines including *SmartMode*, *ExpertMode*, *AutoCalibration* and TGA-*BeFlat*® ▪ *AutoEvaluation* and *Identify* ▪ *SuperRes*® (optional)
Coupling to evolved gas analysis (EGA)	Optional: FT-IR and/or MS or GC-MS, integrated FT-IR (*PERSEUS* TG)

[1] 21°C chiller temperature, 200 ml/min He (purge + protective gas); the maximum temperature of the TGA system depends on the He gas flow: at 200 ml/min, T_{max} is 1020°C.