acquray® solid

The innovative **acquray** solid module as an additional option of the **acquray** TOC is capable to determine and distinguish between different carbon fractions (TOC, ROC, TIC) in solids by using a free configurable temperature ramp compliant with DIN 19539. Furthermore, TOC and TC can be analyzed in compliance with EN 15936 und EN 13137 by using high-temperature combustion. This offers the unmatched flexibility to combine comprehensive carbon analysis for solids and liquids with one single instrument.

Elemental combustion analyzer

Concentration analysis of	TOC, ROC, TIC, TC in solids compliant with DIN 19539 (also Annex B), EN 15936, EN 13137
Sample types	Soil, waste, debris, construction materials, etc.
Design	Compact benchtop with single power supply, module of the **acquray** TOC
Sample introduction	Manual with user-friendly sample feeding unit
Sample container	Steel or quartz glass crucibles holding up to 400 mg each
Furnace	Dynamically heated furnace system with permanent post-combustion
Cooling	Active cooling sytem with furnace cooling fan
Carrier gas	Synthetic air, nitrogen (nitrogen of the **acquray** TOC can be connected and used)
Reactor	Straight quartz combustion tube with platinum catalyst filling
Detector	Highly sensitive infrared detection, implemented in **acquray** TOC
Control	Fully digital via external PC
Analysis time*	~25 min for entire temperature ramp (TOC/ROC/TIC), ~8 minutes for acidified samples, self-optimizing according to element content and sample weight
Calibration TOC/ROC/TIC	Multipoint, multirange, matrix-independent calibration

* depending on sample type, analysis mode and configuration

System Data Sheet

Measurement Range and Technical Specifications

Measurement range:	up to 1.2 mg C abs. or 0 – 100 %
Detection limit:	2 µg C abs., approx. 5 ppm at 400 mg sample weight
Standard deviation:	< 1 % RSD for $CaCO_3$ standard
Dimensions:	42 × 53 × 54 cm (W × D × H)
Weight:	approx. 40 kg
Electrical connections:	100/110/200/230 V, 50/60 Hz, 1.8 kW

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