



SWISS MADE +

## prepASH® 340 Series

### Thermogravimetric Analyzer (TGA)

Automatic analysis of Moisture, Volatiles, Ash, Fixed Carbon  
Special application for Coal & Coke as per ASTM no D 5142-09

prepASH® Series 340 represents the highest level of thermo-gravimetric analysis and offers revolutionary improvement of sample preparation, analysis and documentation.



- Fully automatic thermo-gravimetric analysis with end-point recognition replaces drying oven, muffle furnace and analytical balance
- 3 Models in prepASH® Series 340 for 12, 19, 29 samples are optimum solution for each application
- Built-in high performance analytical balance 0.0001g
- Selectable atmosphere (N<sub>2</sub>, O<sub>2</sub>, Air)
- Easy operation of the instrument from colour touch screen built-in computer (Windows)
- Real-time evaluation of weight loss during the drying and ashing process is shown directly on the prepASH display and via network to external computer
- Various communication ports: Ethernet, 2 USB ports (for PC, Printer, Barcode reader, Keyboard)
- Printout: complete report with Graphics, Tables, Method and Statistics
- Error free protocols and reports

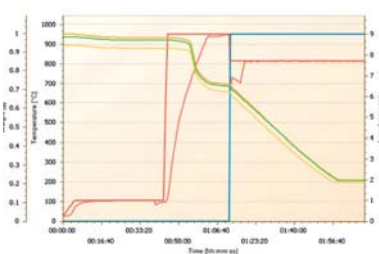


### Analysis of Coal & Coke as per ASTM no D 5142-09

- Massive reduction in the work-load through the simultaneous evaluation of the Moisture, Volatiles, Ash and Fixed Carbon content of up to 29 samples in one cycle
- Standard Analysis is easily transferred to prepASH® Series 340 and validated
- Optimisation of analysis time up to 70%
- Automatic calculation and documentation of Moisture, Volatiles, Ash and Fixed Carbon values
- Automatic cycle ensures best reproducibility, quality and throughput
- Graphical report of measuring values, either single or in groups, with sample recognition in colour

# Precisa

■ The Balance of Quality ■



## Moisture, Volatiles, Ash and Fixed Carbon Method Reference ASTM D 5142-09

### Equipment

Moisture and volatile matters are determined under protection nitrogen atmosphere. The ashing step is done under oxidizing atmosphere with oxygen. prepASH® must be equipped with the gas flow control unit.

### Set "Volatiles"

Free of charge we supply prepASH® with Al<sub>2</sub>O<sub>3</sub> crucibles with covers, steel turn-table and tweezers.

### Reference coal and Calibration

Reference material is used to calibrate the methods for the determination of volatile matter content of samples. prepASH® is delivered with a standard method and pre-calibrated with 3 standards. Customers calibration: the reference materials must cover the full range of expected volatile matter contents of the coal and coke samples that will be routinely analyzed.

### Analysis Time 2 to 5 hours

### Method and Procedure

Standard analysis is easily programmed on the prepASH® Series 340. The user is guided through the needed manual steps as weighing in, cover and uncover the crucibles.

### Procedure

1. Load crucibles into the furnace carousel and weight all the crucibles automatically.
2. Load the samples in the crucibles and weight them.
3. Press "Start".
4. Cover crucibles after drying.
5. Uncover crucibles before ashing.
6. Automatic printout of report at the end of standalone analysis.

### Typical Results

Statistic:	A: Mois[%]		B: Vola[%]		C: Ash[%]		D: Carb[%]
Group: 1	A-Result	A-Calc.	B-Result	B-Calc.	C-Result	C-Calc.	D-Calc.
mean	0.95300	1.78603	0.70187	25.87833	0.21370	22.02256	50.31300
std	0.02981	0.02060	0.02093	0.11011	0.00707	0.05807	0.16023
rstd	3.12797	1.15340	2.98187	0.42549	3.31020	0.26367	0.31847
n	3	3	3	3	3	3	3

For detailed information about the determination of Moisture, Ash, Volatiles and Fixed Carbon with prepASH® Series 340, please contact Precisa Gravimetrics AG or our local representative.