



# Series 340: prepASH®

**Automatic Analysis of Moisture, Volatiles, Ash, Fixed Carbon**  
**Special Application for Coal & Coke as per ASTM no D 7582**

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



## Key Features of Series 340 prepASH®

- Fully automatic thermogravimetric analysis with end-point recognition replaces drying oven, muffle furnace and analytical balance
- 3 models in the prepASH® series 340, suitable for 12, 19 and 29 samples, are the 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 7582

- 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



## Moisture, Volatiles, Ash and Fixed Carbon Method Reference ASTM D 7582

### Equipment

Moisture and volatile matters are determined under the protection of a nitrogen atmosphere. The ashing step is done under an oxygen atmosphere. 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, ceramic sample disc and steel 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

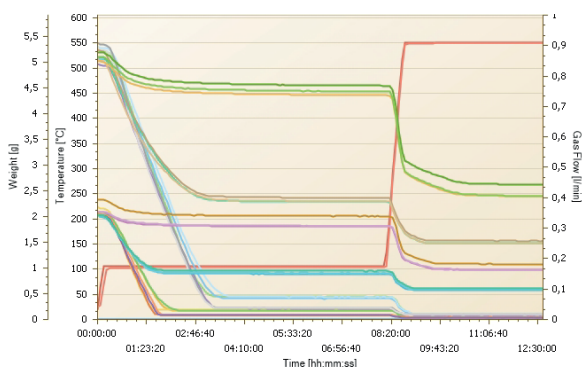
2 to 5 Hours

### Method and Procedure

1. Load crucibles into the furnace carousel and weigh all the crucibles automatically.
2. Load the samples in the crucibles and weigh 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.

### Analysis Time

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



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