



# IDSorb™

For Adsorption/Desorption/Absorption Analysis

## RAPID FLYASH SORPTION ANALYSIS WITH SAMPLE TRANSPORT



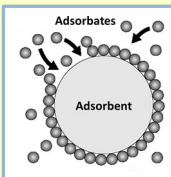
Optical Unit with Automated Sample Handling & Analysis

15.6" Laptop with GUI, Drivers, and USB Control

10-Sample Tube Roller/Mixer

### SYSTEM CAPABILITY

Adsorption is the deposition of molecular species (adsorbates) on a surface (adsorbent). The removal of adsorbates from the surface of an adsorbent is known as desorption.



IDSorb™ (from the IDSpectra™ product line) can be used to accurately determine the levels of adsorption (or desorption) from a wide range of materials. While it is specifically designed to be used with FlyAsh & commercial Air Entrainment Agents (AEAs), it can be expanded and customized to be used with any adsorbate/adsorbent system.

- FlyAsh Adsorption Capacity
- Product Quality Control
- Evaluation of Air Entrainment Agents
- Surfactant & Solute Identification
- Concentration Measurements
- Miscellaneous Research

### CONTACT

PHONE: 770-745-5693

WEBSITE: [www.phosphortech.com](http://www.phosphortech.com)

EMAIL: [info@phosphortech.com](mailto:info@phosphortech.com)

### MAILING ADDRESS

PhosphorTech Corporation  
3645 Kennesaw N. Industrial Pkwy  
Kennesaw, Ga 30144

### INSTRUMENT

#### MATERIALS

Fly Ash Powders	All Types
Air Entraining Agents (AEAs)	Expandable Database
Liquid Carrier	Filtered Water
AEA Detection Sensitivity	+/- 10 ppm

#### MECHANICAL

Dispenser Channels	Four (2 samples, 2 reference)
Dispenser 1 Volume	300 ml (user customized)
Dispensers 2-4 Volume	100 ml (user customized)
Typ. Sample Volume/Ash Weight	50 ml/2 grams
Sample Preparation	Instructions & Videos Provided
Sample Transport & Processing	Automated and fast

#### SOFTWARE & DATA

IDSpectra™ App	Laptop/Tablet
Operating System	Windows 10
AEA Database	Built-in (user selectable)
Measured Spectra	Intensity & Absorbance
Calculated Parameters	Adsorption Capacity & ppm

### ANALYSIS CAPABILITIES

#### Adsorption by Light Absorbance

- Determination of fly ash adsorption of AEAs and other admixtures
- Identification & Comparison of Commercial AEAs with Database
- Generation of UV/Vis Absorbance Spectra

#### Concentration Determination

- Determination of concentration from absorbance (Beer's Law)
- Measurement of unknown concentrations using calibration data
- Detection sensitivity in the parts per million (ppm) range

#### Adsorption Analysis

- Determination of AEA adsorption capacity of fly ash powders
- Generation of AEA adsorption isotherms
- General analysis of adsorbate/adsorbent relationships