PRODUCT DATASHEET

BET Surface Area Analyser

Specific surface area by gas physisorption





DETAIL – ANALYSIS PORT, SAMPLE TUBE AND DEWAR

OVERVIEW

The Tech Inc. BET Surface Area Analyser measures the specific surface area of powders and porous solids by gas physisorption. The degassed sample is cooled in liquid nitrogen, known doses of nitrogen are admitted, and the amount adsorbed at each relative pressure gives the isotherm; the BET equation turns the low-pressure part of that isotherm into m^2/g.

MODELS AND CONFIGURATIONS

- **Single-point and multi-point BET** – routine QC and full surface area.
- **With krypton option** – low areas, down to about 0.01 m^2/g.
- **With pore size option** – BJH mesopore distribution from the full isotherm.

TYPICAL DESIGN DATA

Model	TI-SA-100 series
Method	Static volumetric gas physisorption at 77 K
Adsorbates	Nitrogen, argon; krypton option
Surface area	From about 0.01 m^2/g (krypton) upwards, no practical upper limit
Relative pressure	About 0.001 to 0.995 P/P0
Degas	Two ports, ambient to 400 °C, vacuum or flowing gas
Standards	ISO 9277 and ASTM D6556 methods supported

APPLICATIONS

Catalysts and supports, battery materials, pharmaceuticals and excipients, pigments, carbon blacks, activated carbons, zeolites, ceramics, cement and membrane powders.

KEY ADVANTAGES

- **Accurate** – P0 measured during the run, not assumed
- **Clean** – separate degas ports so the next samples are ready
- **Low-area capable** – krypton option for foils, membranes and dense powders
- **Traceable** – reference-material checks built into the software

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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