

Gemini Surface Area Analyzer

Carbon Standard—Setup #1

- Weigh out 0.5-0.6g of carbon standard
- Degas with nitrogen at 300C for 1 hr
- Re-weigh standard to get standard weight
- Run Po first, then carbon standard
- **Setup #1 Parameters are:**
 - Evac. Rate: 500 mmHg/min
 - Evac. Time: 6.0 min
 - Freespace: Measure
 - First Rel. Press: 0.05
 - Last Rel. Press: 0.300
 - # of Pts.: 11
 - Equilibration Time: 5 sec
- When finished, press “choice” to see surface area value for multi-point and single point
- Expected Values: Multi-point: **30.6** +/- 0.75 m²/g, Single point: **29.9** +/- 0.75 m²/g

Kaolinite Standard—Setup #9

- Weigh 0.3-0.5g of Kaolinite standard
- Degas with nitrogen at 200C for 2 hrs
- Re-weigh standard to get standard weight
- Run Po first, then Kaolinite standard
- **Setup #9 Parameters are:**
 - Evac. Rate: 500 mmHg/min
 - Evac. Time: 1.0 min
 - Freespace: Measure
 - First Rel. Press: 0.05
 - Last Rel. Press: 0.2
 - # of Pts.: 5
 - Equilibration Time: 5 sec
- When finished, press “choice” to see surface area value for multi-point and single point
- Expected Values: Multi-point: **16.1** +/- 0.8 m²/g, Single point: 15.8 +/- 0.9 m²/g

Blank Test—Setup #8

- Use two clean blank tubes purged with nitrogen
- **Setup #8 Parameters are:**
 - Evac. Rate: 1000 mmHg/min
 - Evac. Time: 3.0 min
 - Freespace: Measure
 - First Rel. Press: 0.100
 - Last Rel. Press: 0.900
 - # of Pts.: 9
 - Equilibration Time: 3 sec
- When finished, press “alt” and “review” to scroll through the 9 pts. A great value is 0. The range varies from pt. 1 through pt. 9. A value of 0 is the center of the range.