

Charcoal (VOC Adsorption)

Jumbo Size



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| Adsorbable Compounds | Most organics (VOCs) and some inorganics |
| Adsorption Material | Coconut shell granular activated carbon (GAC) |
| Adsorption Capacity | 160 mg (for toluene at room temperature) |
| Adsorption Layer | 800 mg |
| Breakthrough Layer | 200 mg |
| Recommended Flowrate | 0.01 – 1.5 L/min. |
| Tube Length | 110 ± 2.0 mm |
| Tube Outer Diameter | 10.0 ± 0.5 mm |

DESCRIPTION:

These GAC tubes are used to adsorb and measure concentrations of contaminants in air. They are particularly suited for organic compounds like aromatics and chlorinated solvents, but can also be used for alkanes, ketones, esters, etc., and some volatile inorganic compounds. The tube requires a separate pump to draw an air sample and a system for desorbing and analyzing the adsorbed compounds, typically by solvent extraction and gas chromatography (GC). Separate analysis of the adsorption and breakthrough layers determines whether any target vapors have escaped during sampling. From the flowrate, sampling time, and mass of adsorbate recovered, the average air concentration during sampling can be measured.

MEASUREMENT PROCEDURES:

1. Break open both ends of the tube just before sampling.
2. Connect the tube to a pump, ensuring that the air flow is in the direction of the arrow mark on the tube.
3. Pump sample gas through the tube at a flowrate of up to 1.5 L/min.
4. Continue sampling for a specified period of time and then cap the tube using the plastic caps provided.
5. To avoid loss of adsorbed compounds, do not remove the caps until just before desorption for analysis by GC or other methods.
6. **CAUTION:** High temperatures, high humidity, and excessive flowrates can cause reduced adsorption capacity.