

Thermal Desorption Sample Tubes

- High sensitivity
- High recovery
- Reusable

Thermal Desorption

SKC sorbent technology research has produced superior materials for the collection of organic compounds for thermal desorption.

Thermal desorption techniques offer the advantage of greatly improved analytical sensitivity. Because a solvent is not used, the collected sample is not diluted and, in most cases, analytical recovery is so close to 100% that desorption efficiency corrections are not required.

Sorbents

To be suitable for thermal desorption, sorbents must meet exacting specifications that include:

- Low contaminant background
- High thermal stability
- Sufficient adsorptive strength to retain components of interest, but release them quickly when heat is applied

Recent developments in sorbent technology have provided some superior materials for the collection of organic compounds for thermal desorption.



Anasorb® 747 is a beaded active carbon with the capacity for organic vapors similar to petroleum-based charcoals. This sorbent also samples for nonpolar organic compounds.

Anasorb GCB1 (Graphitized Carbon Black) has a moderate surface area (100 to 200 m²/gm) and is comparable to Carbotrap®B. This sorbent has proven to be valuable for sampling compounds of intermediate to high volatility.

Tenax® TA is a traditional sorbent for trapping medium to high boiling compounds; it is especially useful for low concentrations because of its low background. Tenax TA is suitable for use in EPA TO-1 or IP-1B.

Tenax GR is a Tenax/graphite composite that extends the range of Tenax to lower boiling compounds. It retains the ability of Tenax to be easily cleaned to a very low background.



Thermal Desorption Sample Tubes

Thermal Desorption Tube Selection

All SKC thermal desorption tubes are sealed with PTFE end caps and marked with a permanent serial number. When ordered, SKC thermal desorption tubes receive extensive thermal conditioning that remains valid for 30 days. Glass transport tubes and Swagelok® fittings are available as accessory items.

Perkin Elmer or Unity Thermal Desorber Tubes

Available in glass or stainless steel, these tubes measure 0.25-inch OD x 3.5-inch length.

Applications	Sorbent	SS or Glass	Cat. No.
ASTM D6196	Anasorb GCB1*	SS	226-356
		G	226-359
ASTM D6196 MDHS 22, 23, 31, 40, 72	Tenax TA	SS	226-357
		G	226-360
ASTM D6196 MDHS 72	Chromosorb 106	SS	226-358
		G	226-361
EPA TO-1, IP-1B	Tenax TA	SS	226-340
EPA TO-1, IP-1B	Tenax TA	G	226-339
EPA TO-17	Tenax GR/Anasorb GCB1*	G	226-345
EPA TO-17	Tenax GR/Anasorb GCB1*	SS	226-348

Accessories

Description	Cat. No.
Glass Transport Tubes, for 3.5-inch length tubes	226-300
Swagelok Fittings, for .25-inch OD tubes, set of 2	P50291
PTFE Ferrules, set of 2	P30121

* Anasorb GCB1 is similar to Carbotrap B.

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to <http://www.skcinc.com/warranty.asp>.

