

How to condition your sorbent tubes

Your tubes are packed with: **Tenax (TA or GR)**

They have a maximum desorption temperature of 350 °C but we recommend a maximum temperature of 320 °C to reduce artefacts and extend sorbent lifetime

Tube conditioning

Tubes should be conditioned using clean carrier gas (e.g. oxygen-free nitrogen or helium of 5N grade, and ideally with a hydrocarbon filter in the gas line), at a flow of 50–100 mL/min.

For these freshly packed sorbent tubes, we recommend conditioning for **2 hours at 320 °C**, followed by **30 min at 335 °C**.

Capping and storage

Once cleaned, tubes should be capped with ¼" brass storage caps fitted with ¼" combined PTFE ferrules. These caps should be tightened finger-tight plus a quarter turn.

Tubes should be stored in a CLEAN environment and the brass storage caps should not be removed until immediately prior to sampling or desorption.

For trace-level (low-ppb or ppt level) analyses, it is advisable to run blank desorptions prior to sampling.

Reconditioning

We recommend reconditioning tubes for **15-30 min at 335 °C**.

However, if the tubes become severely contaminated or are left for 1 week or more without being capped, then it is recommended that the full procedure described above be repeated.

These tubes have a lifetime of approximately 100 cycles, which includes both desorption and conditioning cycles. We recommend that the tubes be repacked with fresh sorbent after this.

Further information

Further information about selection of sorbents and conditioning criteria can be found in Markes' Application Note 005. Advice about minimising tube artefacts during storage and/or transport can be found in Markes' Application Note 019.

These documents and many other technical publications can be obtained by registering on our website at www.markes.com/registration, or by contacting us on consumables@markes.com.



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