

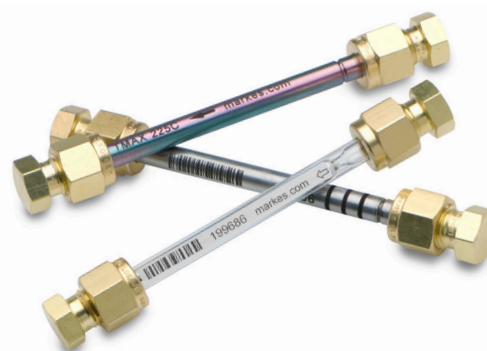
# Thermal desorption tubes

## The best sorbent tubes from the world's leading manufacturer of TD equipment

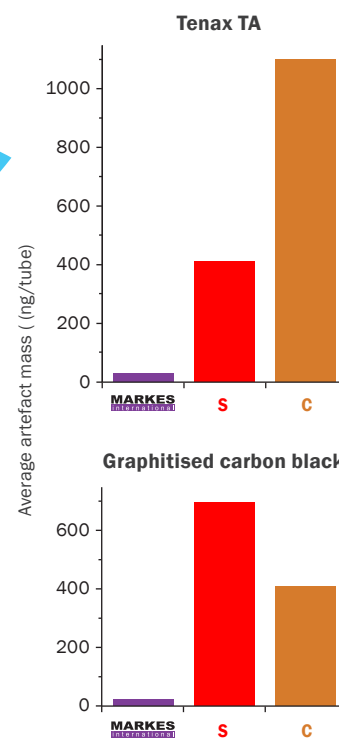
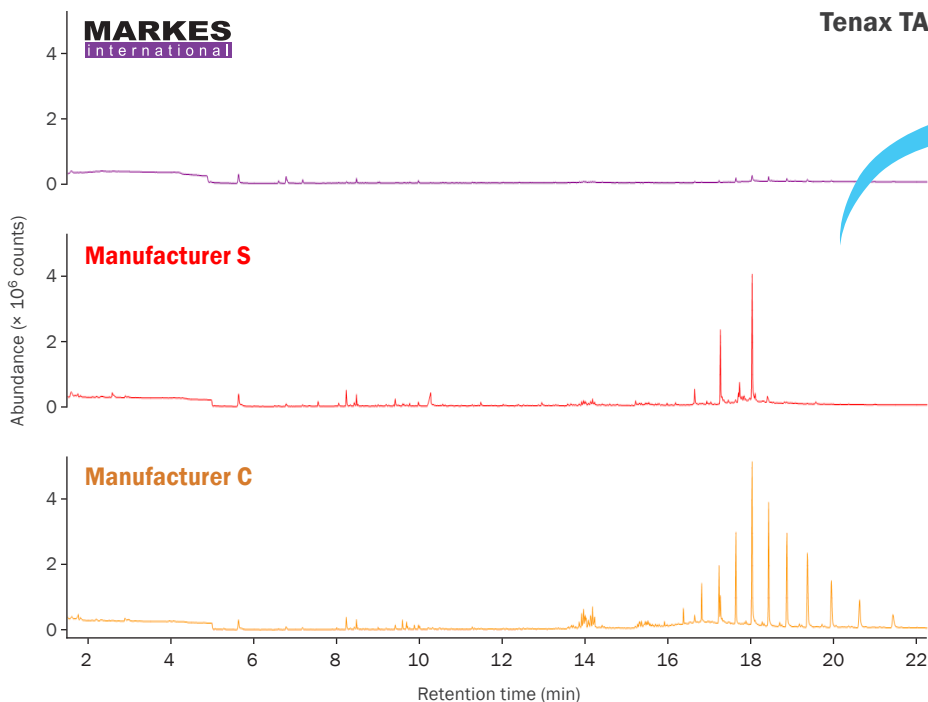
Markes has been manufacturing thermal desorption equipment for almost 20 years, and every year we provide technical support and offer applications advice to thousands of customers worldwide. We're also a member of a number of international committees that develop standards in the field of VOC and SVOC analysis.

All this means that, unlike other tube manufacturers, we have unparalleled expertise on the real-world applications of sorbent tubes, as well as everything to do with thermal desorption. We use this knowledge to provide you with the highest-quality, cleanest sorbent tubes on the market, for:

- Greater confidence in analytical data.
- Improved detection and quantitation of target compounds.
- Improved uptime due to a cleaner TD-GC-MS system.



Markes International supplies conditioned and unconditioned 3½" x ¼" sorbent tubes in stainless steel, inert-coated stainless steel or glass.



Preconditioned sorbent tubes from Markes International produce much lower levels of artefacts than those available from other manufacturers – as shown by these results from conditioned tubes packed with Tenax® TA and a graphitised carbon black. All data was acquired using the same instrument parameters on sets of five tubes, and artefact masses were calculated on the basis of toluene equivalents using 1 ng of a toluene- $d_8$  standard.

## What tube should I choose?

Tubes from Markes International are supplied in your choice of three materials to suit your application:

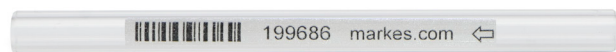
- **Inert-coated stainless steel tubes** are proving increasingly popular in order to comply with US EPA Method 325 for refinery fence-line monitoring and related standards regarding emissions from industrial sources. Importantly, the tube, sorbent-retaining gauze and spring are all treated with an industry-leading SilcoNert™ coating. This eliminates surface adsorption or breakdown of compounds such as sulfur species during analysis, improving the quality of your analytical data.



- **Stainless steel tubes** are widely used for numerous applications. They are made of the highest-quality material to ensure a long lifetime and value for money.



- **Glass tubes** are mainly used for active (pumped) sampling and direct desorption of small samples. They are manufactured from high-grade borosilicate glass to ensure maximum lifespan.



## Talk to us about your application

Whatever your question – be it about sorbent tubes, sampling methods, or complying with new regulations – contact our team of thermal desorption specialists to get the answers you need.



**Contact Markes International**  
for expert advice

### Email

[enquiries@markes.com](mailto:enquiries@markes.com)

### Web

[www.markes.com](http://www.markes.com)

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**Germany:** +49 (0)6102 8825569



**Markes International – partnering with the world leader  
in inert coatings to bring you outstanding-quality  
sorbent tubes for challenging analytes.**

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