



Bending SilcoTek®-coated Tubing

Will bending SilcoNert-treated tubing affect its chemical inertness?

When following the proper guidelines, no.

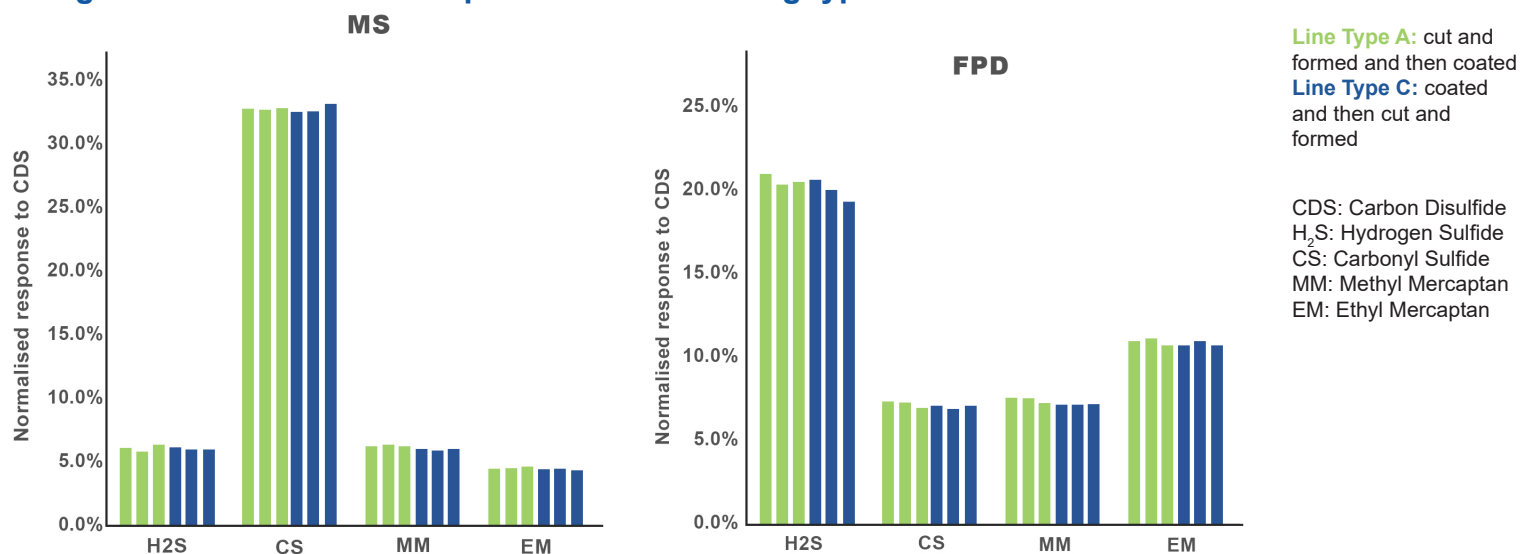
SilcoTek has traditionally recommended the following bend radii to ensure an inert surface throughout the tube.

SilcoTek maintains the following recommendations* however, we present the data below to demonstrate an example of positive analytical results in one application when tubing was bent tighter. Our coatings bond at the molecular level of the tube surface so they don't crack or flake with reasonable bending.

<u>Outer Diameter</u>	<u>Min. Bend Radius*</u>
< 1/16"	1" (2.5 cm)
1/8"	2" (5.1 cm)
1/4"	4" (10.2 cm)
3/8"	6" (15.2 cm)

Recognizing the need for tighter tubing bends in many applications, SilcoTek worked with a third party to run a variety of reactive compounds through mass spectroscopy and FPD trials. The company found that there was no detrimental effect on the performance of SilcoNert for reactive sulfur species after bending 1/16" tubing to a radius of 3 mm, which is well beyond SilcoTek's previous recommendation of 2.5 cm. The company compared tubing that was bent prior to coating and tubing that was bent (formed) after coating. Both tubing types yield similarly excellent results for high and low concentrations of reactive sulfur standards, showing good analyte recovery and stability.

No significant difference in response between tubing types A and C.



Sample device: Cylinder
Sample concentration: 5 ppm
Sampling volume: 10 mL
Split: 100 mL/min