SilcoNert® 2000

The ultimate inert coating for improved sampling and trace-level analysis of active compounds.

Overview

SilcoNert® (US Patent 6,444,326 & 6,511,760) is a chemically protective barrier of amorphous silicon that is further functionalized to provide the most inert surface available. Applied via chemical vapor deposition (CVD), SilcoNert® is ideal for any analytical flow path where trace levels of important molecules such as sulfurs, mercury, and ammonia must be accurately measured and characterized.

Features & Benefits

- Non-line-of-sight process; all holes and complex geometries will be coated
- Eliminate adsorption and retesting
- Obtain faster calibrations
- Have full confidence in your results

Specifications

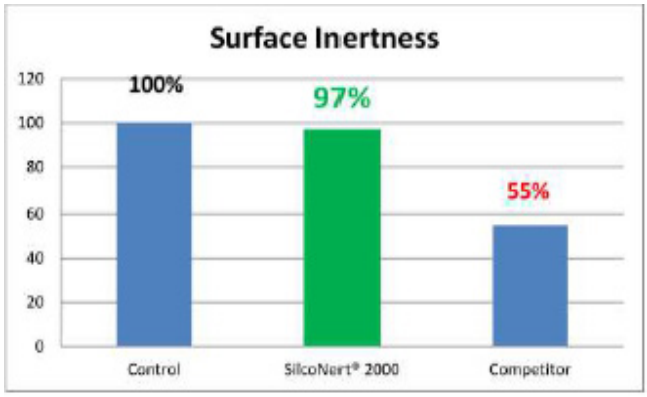
Substrate compatibility*:	SS alloys, ceramics, glass, titanium, most exotic metals, TIG/MIG welds, vacuum-nickel brazed areas
Allowable temp. range:	-210℃ to +450℃
Thickness:	100-500 nm
Allowable pH exposure:	0-8
Lubricity (coefficient of friction):	0.7
Hydrophobicity (contact angle):	80°
Wear resistance:	14.00 (304 stainless steel: 13.81)

* Contact technical service

Data

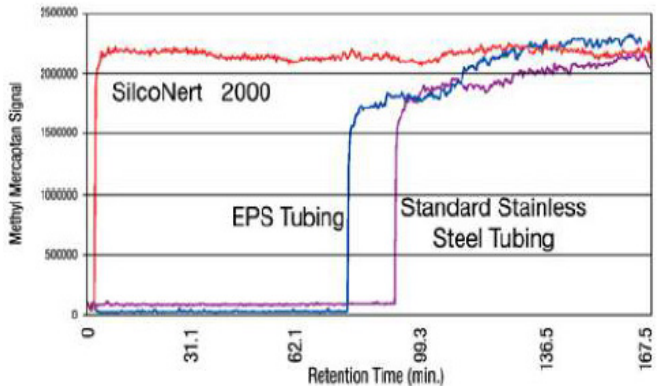
Analytical Inertness

SilcoNert 2000 offers twice the inertness compared to other commonly used coatings.



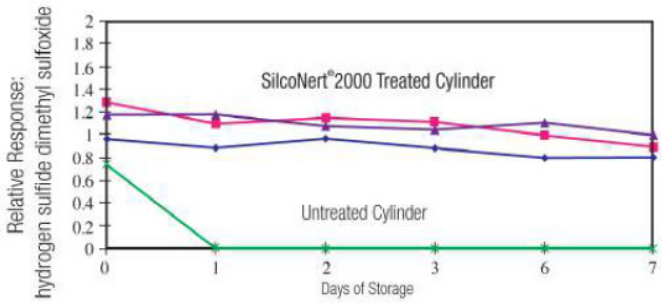
Fast Signal Response

SilcoNert 2000 improves sulfur response by 10x or more, offering immediate process feedback.



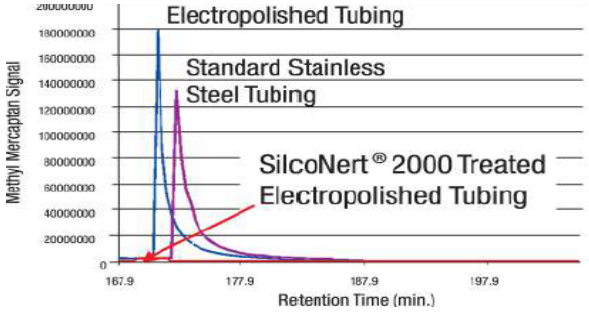
Sulfur Stability

7 day stability testing demonstrates near 100% recovery of sulfur and sulfur compounds.

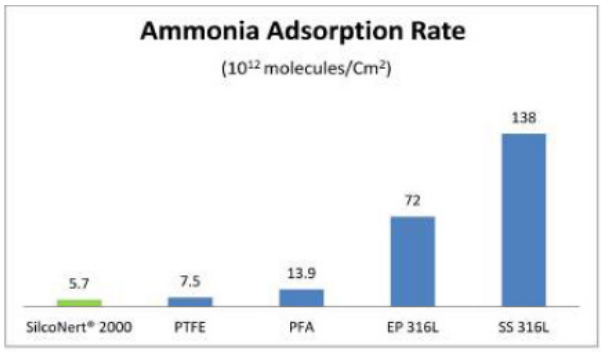


No Memory Effects

SilcoNert 2000 prevents false readings due to memory effects in transfer tubing.

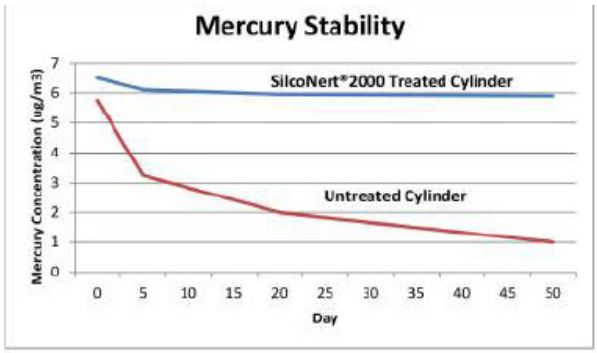


Preventing Ammonia Adsorption SilcoNert 2000 prevents ammonia adsorption onto flowpath surfaces.



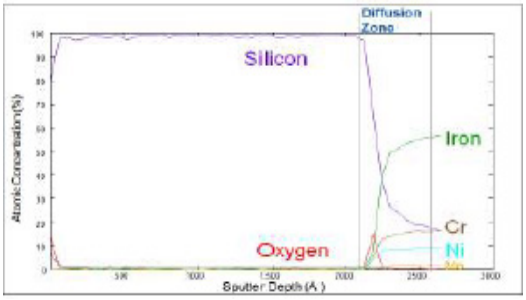
Mercury Stability

The coating does not react with mercury or mercury compounds, assuring long-term stability.



Material Composition

Auger Electron Spectroscopy shows a pure silicon (Si) layer which is ideal for an inert flow path.



SilcoTek®

Game-Changing Coatings™

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Information subject to change without notice.

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