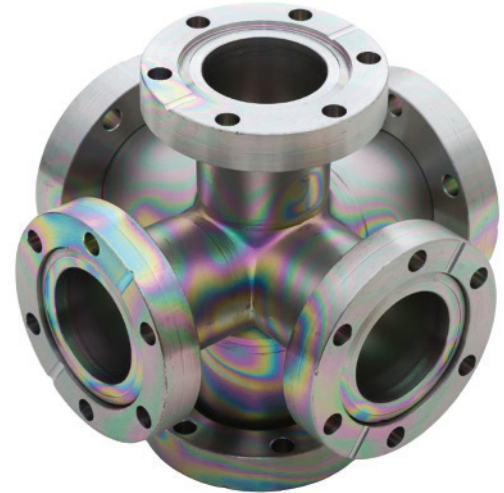


Dursox®

Providing corrosion resistance for high purity process environments.

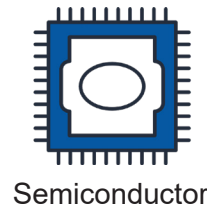
Overview

The Dursox® coating process results in a chemically protective hydrophilic barrier of amorphous silicon and oxygen that prevents substrate ions from leaching into process streams (patent info at www.silcotek.com/IP). Applied via chemical vapor deposition (CVD), the Dursox® process is required when both a robust and chemically compatible surface are critical.

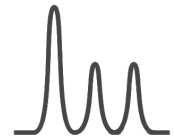


Key Applications and Benefits

- Achieve the performance of exotic materials at a fraction of the price
- Fight corrosion and chemical interaction
- Lower instrument detection limits
- Improve surface wetting



Semiconductor



Research



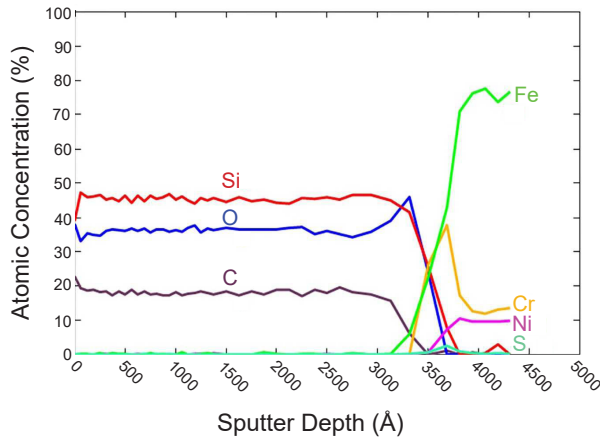
Corrosion

Dursox® Properties

Coating Structure:	Silica-like coating (a-SiO _x)
Deposition Process:	Thermal chemical vapor deposition (not plasma-enhanced)
Maximum Temperature:*	Max for functionalization: 450° C (oxidative) 500° C (inert)
Substrate:	Compatibility: Stainless steel, exotics alloys, ceramics Size: Typical parts up to 80" (203 cm), contact us for larger jobs. Geometry: Any shape, including complex geometries
Typical Thickness:	400 - 1600 nm
Hydrophobicity (contact angle):	≤60°
Allowable pH Exposure:	0 - 14

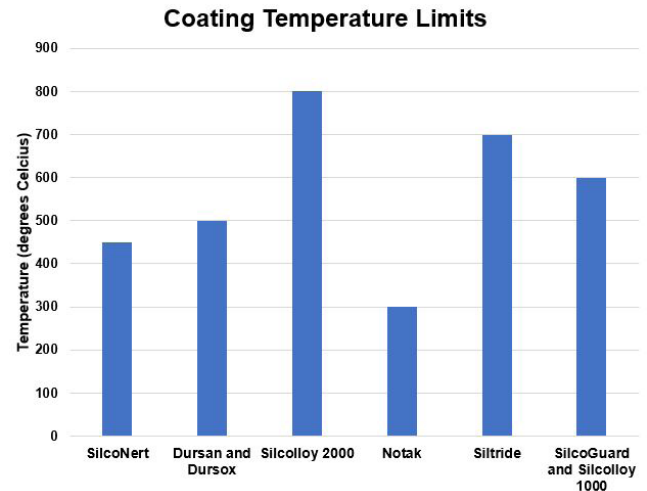
CHEMICALLY COMPATIBLE

The silica-like structure provided by the Dursox process is a robust and inert barrier suitable for several process environments.



HIGH-TEMPERATURE STABLE

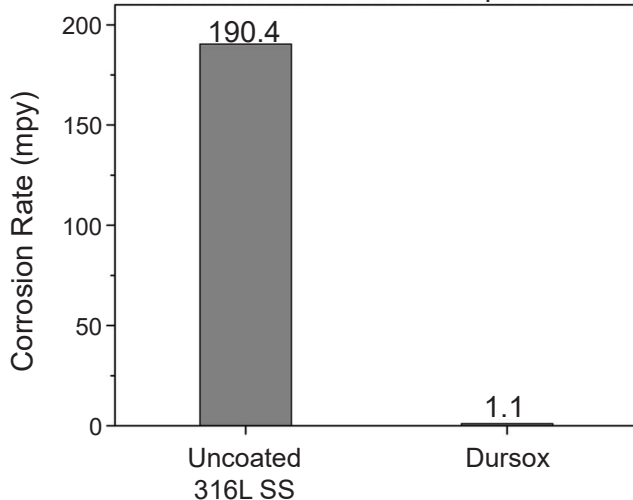
The Dursox process produces versatile properties that are stable at temperatures well above the limit of fluoropolymers.



CORROSION RESISTANT

The Dursox process provides a corrosion resistant barrier in any pH conditions.

ASTM G31HCl 6M
Immersion at Room Temperature



ROBUST

Dursox has twice the wear resistance of 304 stainless steel and won't crack, delaminate, or flake like PTFE.

	Avg. Coeff. Friction	Wear Rate (x10 ⁻⁵ mm ³ /Nm)
Uncoated SS	0.589	13.810
Si _x O _y - base(functionalized)	0.378	6.129
Si - base(corrosion)	0.7	14.00



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