

SilcoKlean[®] 1000

Reduces carbon buildup on combustion-related components.

Overview

SilcoKlean[®] (patent info at www.silcotek.com/IP) is a protective barrier of amorphous silicon that is further functionalized to specifically prevent the buildup of carbon deposits on high temperature stainless steel and ceramic components. Applied via chemical vapor deposition (CVD), SilcoKlean[®] is the best solution for carbon coking due to its robust and inert properties.



Key Applications and Benefits

- Non-line-of-sight process; all holes and complex geometries will be coated
- Cut downtime and costs
- Suitable for high temperature use
- Reduce unwanted build-up



Automotive



Aerospace



Stack/Flare



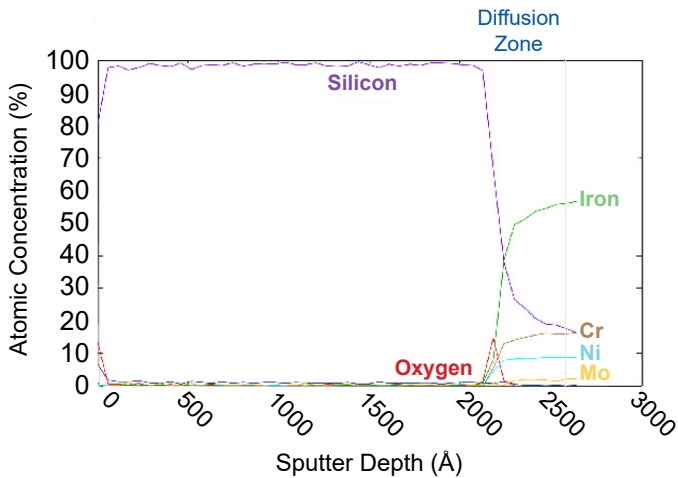
Refining

SilcoKlean[®] Specifications

Coating Structure:	Functionalized hydrogenated amorphous silicon
Deposition Process:	Thermal chemical vapor deposition (not plasma-enhanced)
Maximum Temperature:	450° C (maximum for functionalization) 1410° C* (melting)
Substrate:	Compatibility: Stainless steel, exotic alloys, ceramics Size: Up to 78" (198 cm) Geometry: Any shape, including complex geometrics
Typical Thickness:	100 - 500 nm
Hydrophobicity (contact angle):	≥ 65°
Allowable pH Exposure:	0 - 8

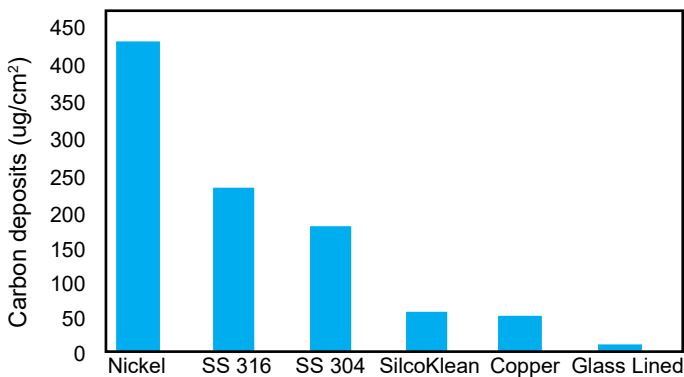
CHEMICALLY COMPATIBLE

SilcoKlean's functionalized silicon structure provides a highly inert barrier to analytes of interest.



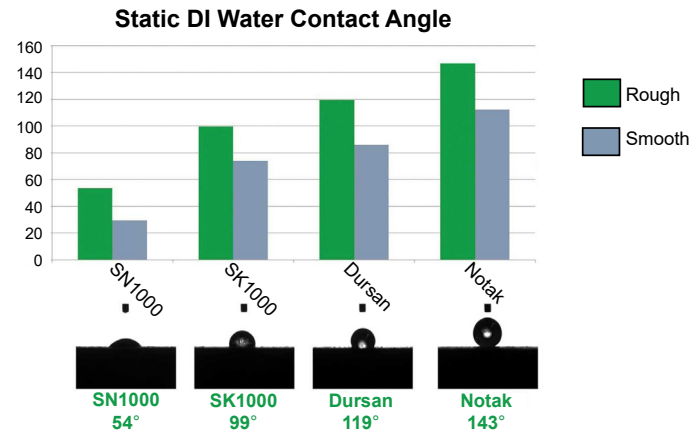
ANTI-COKING

SilcoKlean treated surfaces can substantially improve fuel efficiency by reducing carbon deposits on metal surfaces.



NON-WETTING

SilcoKlean doubles the hydrophobicity of stainless steel, improving the non-stick properties of the coated surface.



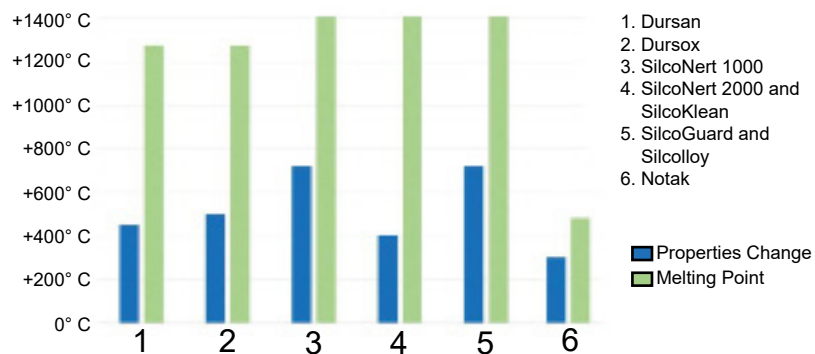
ANTI-FOULING

SilcoTek-coated surfaces (left) prevent build-up or "fouling" of unwanted materials and byproducts.



HIGH-TEMPERATURE STABLE

SilcoKlean is robust and inert for use up to 450°C, far exceeding the limits of PTFE.



225 Penn Tech Drive
Bellefonte, PA 16823

+1 (814) 353-1778

silcod@silcotek.com

www.silcotek.com