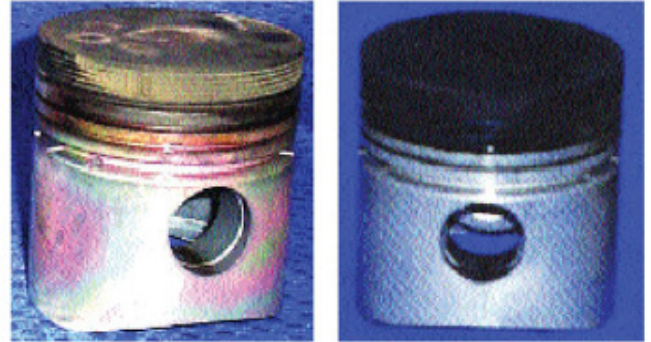


SilcoKlean®

The only coating suitable for dramatically reducing carbon buildup on combustion-related components.



Overview

SilcoKlean® (US Patent 6,444,326) 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, SilcoKlean® is the best solution for carbon coking due to its ultra-thin yet robust properties.

Features & Benefits

- Non-line-of-sight process; all holes and complex geometries will be coated
- Suitable for 1000°C+ use
- Maximize system performance
- Cut downtime and costs

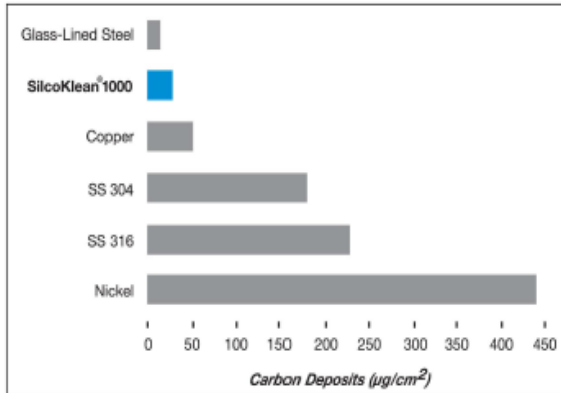
Specifications

Substrate compatibility*:	SS alloys, ceramics, glass, titanium, most exotic metals, TIG/MIG welds, vacuum-nickel brazed areas
Allowable temp. range:	-210°C to +1100°C
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)

Data

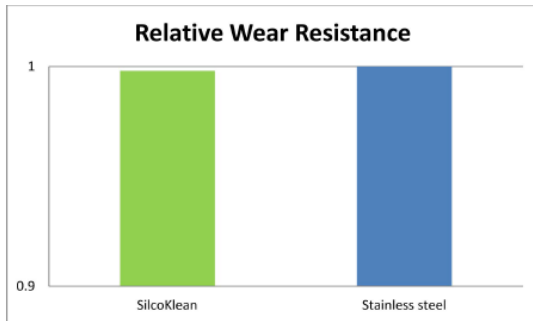
Anti-Coking

SilcoKlean prevents carbon from fouling or penetrating stainless steel substrates.



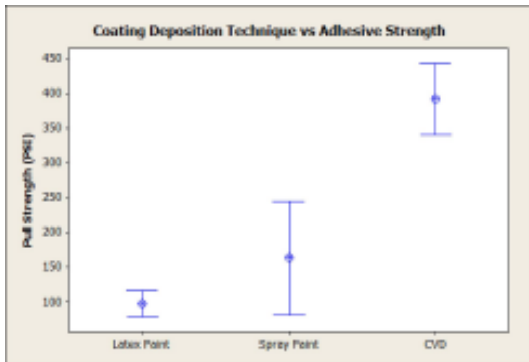
Wear Resistance

SilcoKlean's resistance to abrasion is comparable to 300 series stainless steel.



Adhesion

Our CVD process ensures a molecularly bonded coating that will not flake or peel.



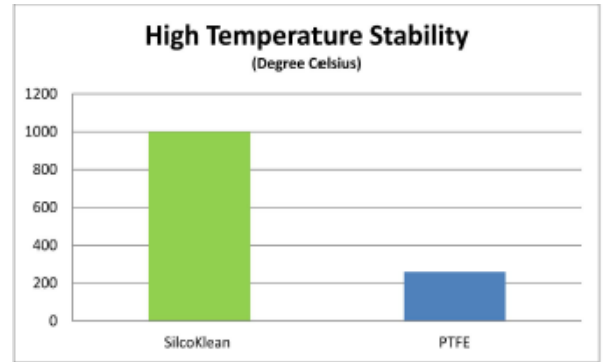
Coated Comparison

Reduced carbon fouling (left) improves performance and reliability.



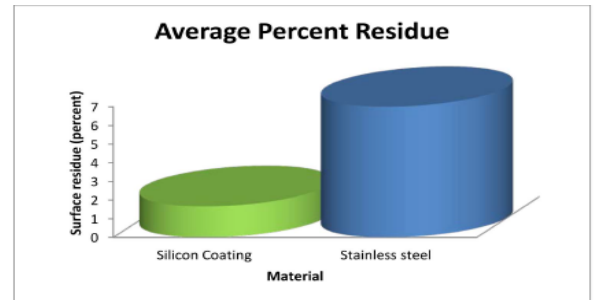
High Temperature Stability

SilcoKlean is stable in temperatures higher than 1000°C (substrate dependent).



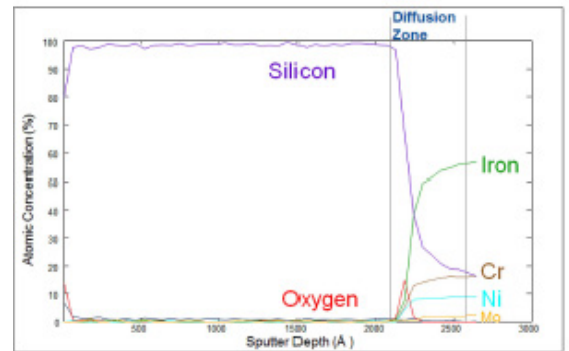
Fouling Resistance

SilcoTek coatings repel particulates and adsorption which reduces fouling or build-up.



Silicon Barrier

A pure silicon coating is a highly inert and temperature-stable surface.



Coatings that Expand Material Limits

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