Silcoloy

A corrosion resistant silicon coating ideal for acidic environments and high temperature applications.



Overview

Silcolloy® (US Patent 7,070,833) is a chemically protective, corrosion resistant, multi-layered barrier of amorphous silicon. Applied via chemical vapor deposition (CVD), Silcolloy is the ideal choice for protecting stainless steels, exotic metals, glass, ceramics and other alloys from acidic attack or for preventing unwanted compounds from entering the process stream.

Features & Benefits

- 3D non-line-of-sight process coats all complex geometries and small orifices
- Achieve exotic material performance at a fraction of the price
- Fight corrosion with a non-reactive, pure barrier

Specifications

Substrate compatibility*:	SS alloys, ceramics, glass, titanium, most exotic metals, TIG/MIG welds, vacuum-nickel brazed areas
Allowable temp. range:	-210°C to +1140°C
Typical thickness:	180-800 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)