

A versatile coating solution ideal for corrosion and wear resistance, chemical inertness, and anti-stick properties.

Overview

Dursan® (US patent pending) is a chemically protective barrier of amorphous silicon, oxygen and carbon that is further functionalized to resist adsorption of corrosive, reactive, and otherwise unwanted molecules. Applied via chemical vapor deposition (CVD), Dursan® is a required coating when both a robust and chemically inert surface are critical.

Features & Benefits

- Achieve the performance of exotic materials at a fraction of the price
- Fight corrosion, erosion, and wear
- Lower your instrument's detection limits
- Prevent sticking; easy to clean

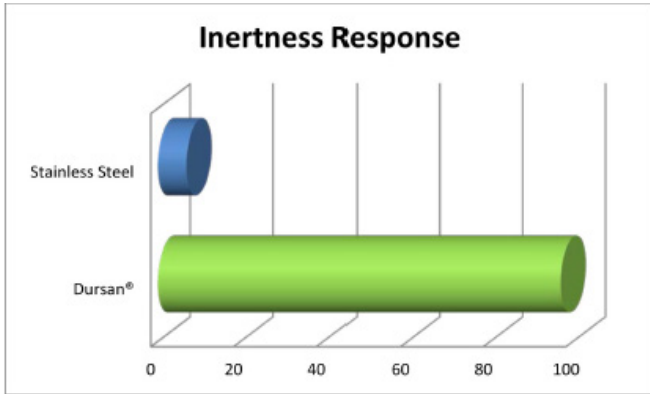
Specifications

Substrate compatibility*:	SS alloys, ceramics, glass, titanium, most exotic metals, TIG/MIG welds, vacuum-nickel brazed areas
Allowable temp. range*:	-210° C to + 500 °C (inert atmosphere), 450° C (oxidative atmosphere)
Thickness:	400-1600 nm
Allowable pH exposure:	0-14
Lubricity (coefficient of friction):	0.378
Hydrophobicity (contact angle):	90°
Wear resistance:	6.13 (304 stainless steel: 13.81)

Data

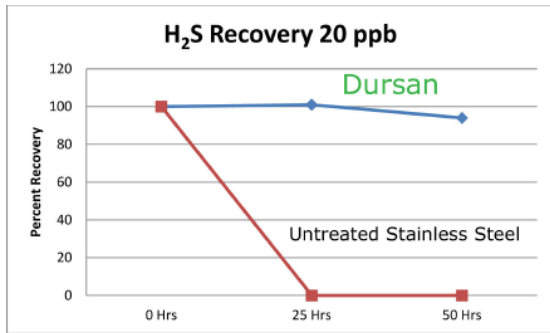
Analytical Inertness

Dursan improves inertness response by an order of magnitude over uncoated stainless steel.



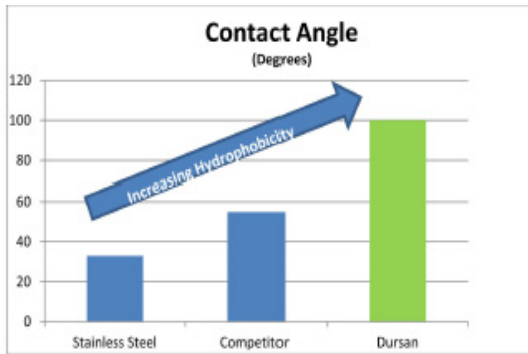
Sulfur Stability

Dursan offers parts-per-billion level sulfur stability compared to uncoated stainless steel.



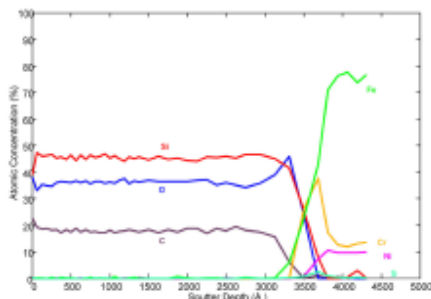
Hydrophobicity

Dursan's superior hydrophobicity helps to prevent moisture-related contamination and adsorption.



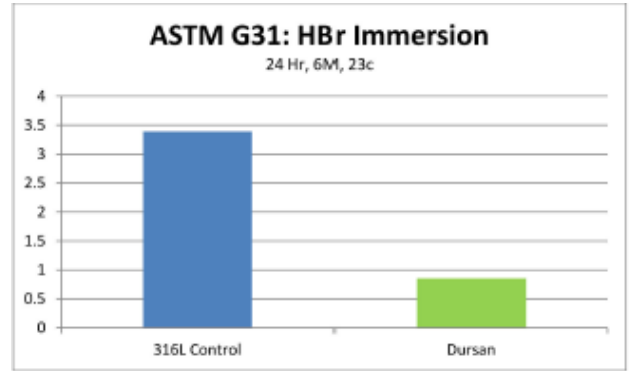
Material Composition

Auger Electron Spectroscopy shows a silicon, oxygen and carbon layer which is very durable.



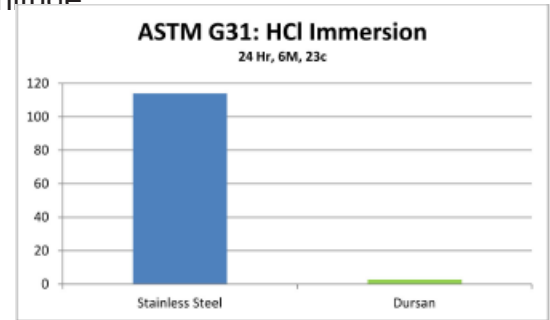
Corrosion Resistance

Dursan acts as a protective barrier to a variety of corrosive media from pH 0-14.



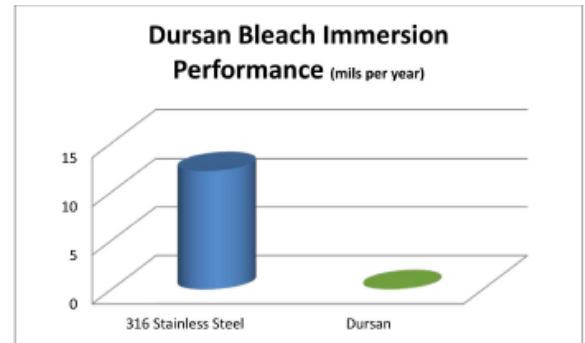
Resistance to Acid

Dursan improves the acidic corrosion resistance of stainless steel by orders of magnitude.



Bleach Corrosion

Dursan resists bleach corrosive attack and pitting, preventing carryover of crucial analytes.



Coatings that Expand Material Limits

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