



CARBORUNDUM



*Hexoloy SE SiC choke bean inserts for demanding energy industry applications.*

## Hexoloy® SE Silicon Carbide Wear Resistant Parts for the Energy Industry

### A superior alternative to metals, tungsten carbide and alumina ceramics

Hexoloy® SE SiC is a superior alternative to metals, tungsten carbide and other alumina ceramics for efficiency, uptime and reliability. It offers:

- Extreme hardness and high strength
- Virtually universal corrosion resistance
- Good thermal conductivity
- Low thermal expansion
- Excellent thermal shock resistance

### Hexoloy SE SiC choke bean inserts offer distinct advantages for deep offshore and onshore applications

Hexoloy SE SiC choke bean inserts are a superior alternative to inserts made of hardened stainless steel, tungsten carbide and alumina. The cobalt binder material of tungsten carbide is often susceptible to chemical attack. By contrast, the high density, low porosity and chemical inertness of Hexoloy SE SiC components permit them to function in environments of hot gases and liquids, in oxidizing and corrosive atmospheres, and in strong acids and bases, even at extremely high temperatures.

Hexoloy SE SiC choke bean inserts enhance the performance of choke beans used in demanding energy industry applications. The extreme hardness and density of Hexoloy SE SiC make it suitable for applications where parts are subject to high wear and sliding abrasion. Hexoloy SE SiC parts provide extremely high strength and resistance to creep and stress rupture at temperatures up to 1370° C (2500°F), making them ideal for deep offshore and onshore applications.

## Hexoloy® SE SiC Typical Physical Properties

Material	Hexoloy SE SiC
Maximum Use Temperature	1900°C
Flexural Strength (MPa)	
@ room temp	380
@ 1450°C	370
@ 1600°C	410
Density (g/cc)	3.07
Apparent Porosity (%)	0.6
Modulus of Elasticity (GPa)	
@ 20°C	350
@ 1200°C	300
Thermal Conductivity (W/mK) @ 1200°C	30
Coefficient of Thermal Expansion	$4.02 \times 10^{-6}/^{\circ}\text{C}$



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