

### **General Description:**

This coating is used to minimize wear, erosion and friction on balls and seats in severe service trim. Hardness is derived from complex carbides which form with Chromium, Tungsten, Iron and Boron. It differs from HVOF Chromium Carbide in that carbides of many metals are formed during the fusion process rather than pre-existing in the spray metal.

The metallurgical bond makes this coating suitable for extremely high temperature service and extremely high thermal shock applications. This coating has displayed excellent wear resistance in elevated temperature cyclic service. The minimal porosity in this coating is closed, providing complete corrosion protection of the base metal.

### **Application Method:**

Spray and Fuse

### **Typical Chemistry:**

Boron	2%
Carbon	2%
Chromium	12%
Cobalt	Balance
Nickel	9%
Silicon	2%
Iron	1%
Tungsten	35%



### **Typical Mechanical Properties:**

Hardness	> 58 HRC average
Finished Thickness	0.009" to 0.023"
Porosity	2% maximum
Useful Temperature	up to 1000°F (538°C)
Bond Strength	> 40,000 psi

### **Confidentiality Note:**

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