

# Bulletin

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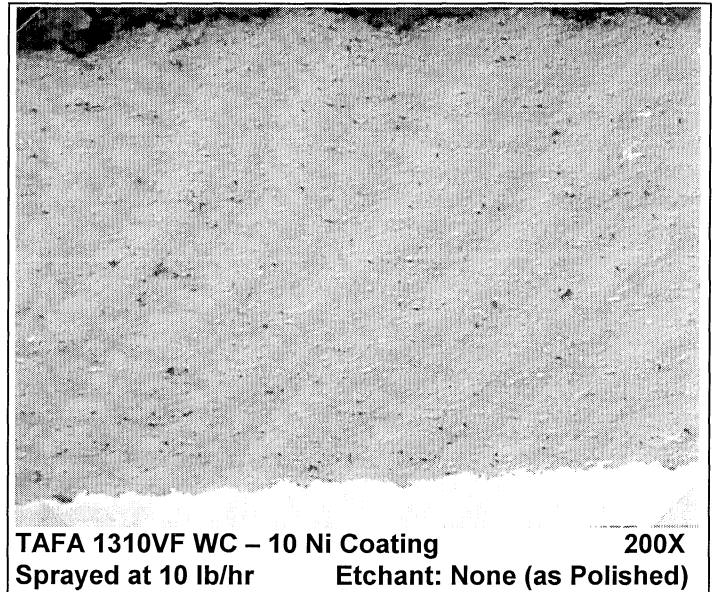
## Coating Properties

### TAFE 1310VF Tungsten Carbide – 10 Nickel

#### Spray Conditions

Excellent coatings of TAFE 1310VF can be obtained at spray rates of 2 to over 10 lb/hr with the JP-5000<math>\leftrightarrow</math>ST. For typical starting conditions see bulletin 1.9.2.2SH-1310VF.

	<u>Spray Rate</u>
	10 lb/hr (4.5 kg/hr)
Coverage	53 ft <sup>2</sup> /hr/0.001" (0.125 m <sup>2</sup> /hr/mm)
Powder Required	0.19 lb/ ft <sup>2</sup> x 0.001" (36.84 kg/ m <sup>2</sup> x mm)



#### Coatings (typical):

Thickness (maximum)		Over 0.050" (2mm)
Finish	As Sprayed	150 -in AA
	Ground	Less than 10 -in AA
Bond Strength		10,000 psi (Epoxy failure at 0.015" thickness)
Hardness -	Superficial	87 - 89 R <sub>15N</sub>
	Macro	57 - 60 R <sub>C</sub>
	Micro	1000 DPH <sub>300</sub>
Microstructure -	Porosity	Less than 2%
	Oxides	Less than 2%
Coating Density		14.45 g/cm <sup>3</sup> *

\* Calculated Value

## **Suggested Finishing Procedures:**

### **Rough Grinding**

Wheel:	125 – 150 grit
Wheel Speed:	5200 sfpm
Part Speed:	25 – 75 rpm
Infeed:	0.0005" (0.0127 mm) ( <b>not to exceed</b> )
Method:	Plunge (step) grind to within 0.001 – 0.002" (0.0254 – 0.05 mm)

### **Finish Grinding**

Wheel:	380 – 400 grit
Wheel Speed:	5200 sfpm
Part Speed:	25 – 75 rpm
Infeed:	0.0002" (0.005 mm) ( <b>not to exceed</b> )
Method:	Traverse mode for clean-up of final 0.001 – 0.002" (0.0254 – 0.05 mm)

**The information provided herein is believed to be accurate and reliable; however, results may vary with workpiece preparation and operator technique. TAFE warrants only that the powders are free of defects in material and workmanship. No other warranty is expressed or implied.**

### **Hazards:**

Observe normal spraying practices. Respiratory and hearing protection is advised. For general guidelines see AWS Publication C2.1-73, and AWS TSS-85. Thermal spraying is a safe process when performed in accordance with proper safety measures.

### **TAFE Delivers Your "Operating Advantage"**

TAFE's primary objective is to ensure you consistently get the coating quality you require...with greatest application ease...at the lowest coating costs. TAFE accomplishes this by engineering the most advanced thermal spray materials and equipment available.

***Coating Performance + Ease-of-Use + Low Costs =  
"Operating Advantage"***

**For further information** on HVOF coatings, equipment and supplies, as well as other thermal spray processes and custom automated systems, contact: