

Bulletin



Praxair Surface Technologies
1555 Main Street
Indianapolis, IN 46224

Praxair Surface Technologies
TAFE Incorporated
146 Pembroke Road
Concord, NH 03301

File: 1.9.2.2CH-1334F
Issue: J10910
Original Issue

COATING PROPERTIES

TAFE 1334F 50% Tungsten Carbide-12% Cobalt / 50% Nickel Chrome SF Alloy

Spray Conditions:

Excellent coatings of TAFE 1334F can be obtained at spray rates of 2 to over 20 lb/hr with the JP-5000. For typical starting conditions see bulletin 1.9.2.2SH-1334F.

Spray Rate

	10 lb/hr (4.5 kg/hr)	20 lb/hr (9.07 kg/hr)
Coverage	95.4 ft ² /0.001"/hr (0.225 m ² /mm/hr)	173 ft ² /0.001/hr (0.41 m ² /mm/hr)
Powder Required	0.105 lb/ft ² /0.001" (20.45 kg/m ² /mm)	0.116 lb/ft ² /0.001" (22.5 kg/m ² /mm)

Finishing Procedures:

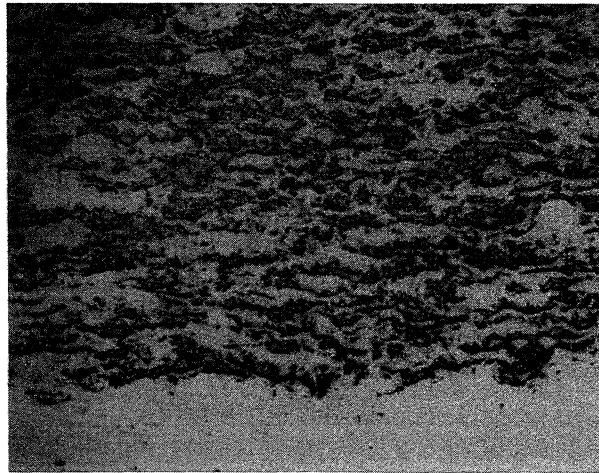
Use good quality, precision grinding equipment with coolant.

Typical setup:

Diamond Wheel	150 grit	Rough
Diamond Wheel	400 grit	Finish
Wheel Speed:	5500 sfpm	
Infeed:	0.0005" per pass	
Feedrate:	400 sfpm (cylindrical)	

Coatings:

Thickness (maximum)		Over 0.100" (2.5mm)
Finish	As Sprayed Ground	175 μ -in AA Less than 10 μ -in AA
Bond Strength		10,000 psi (Epoxy failure at 0.015" thickness)
Hardness -	Superficial Macro Micro	91.5 R _{15N} 63 R _C (converted) 1095 DPH ₃₀₀
Microstructure -	Porosity Oxides	Less than 1% Less than 3%



Tafa 1334F WC-Co/Ni SF Coating Magnification: 200 X
Sprayed at 15 lb/hr Etchant: None (As Polished)

The coating data provided herein was generated by skilled operators using equipment in good working condition. The information is believed to be accurate and reliable; however, thermal spray results may vary. Tafa is committed to a continuing program of product improvement. Product specifications are subject to change without notice. Tafa warrants that the equipment and powder is furnished 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.

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

Tafa Incorporated
 146 Pembroke Road, Concord, NH 03301
 Phone (603) 224-9585
 Fax (603) 225-4342