

Bulletin



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File: 1.9.2.2CH-1350VM
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COATING PROPERTIES

TAFE 1350VM TUNGSTEN CARBIDE - 10% COBALT - 4% CHROMIUM

Spray Conditions:

Excellent coatings of TAFE 1350VM 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-1350VM.

	<u>Spray Rate</u>	
	<u>10 lb/hr (4.5 kg/hr)</u>	<u>20 lb/hr (9.07 kg/hr)</u>
Coverage	55 ft ² /hr/0.001" (0.13 m ² /hr/mm)	110 ft ² /hr/0.001" (0.26 m ² /hr/mm)
Powder Required	0.18 lb/ft ² x 0.001" (35.8 kg/m ² x mm)	0.18 lb/ft ² x 0.001" (35.8 kg/m ² x mm)

Finishing Procedures:

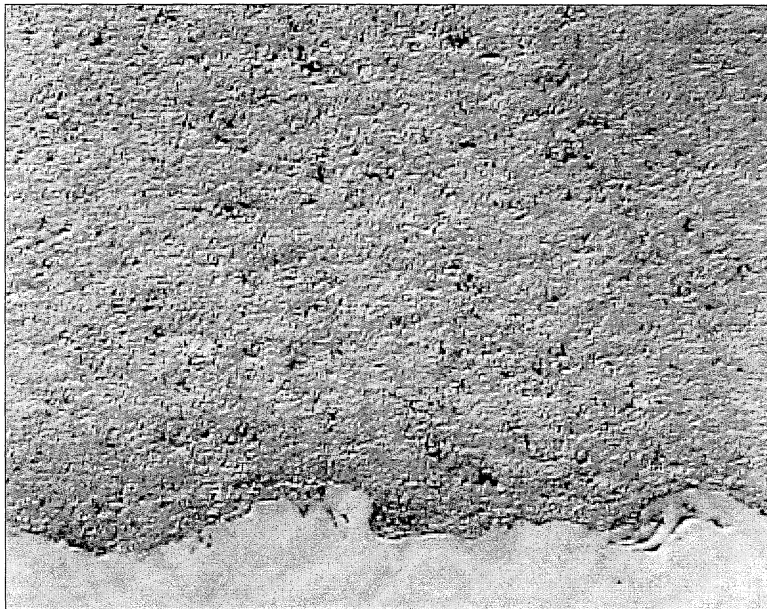
Use good quality, precision grinding equipment with coolant.

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 0.050" (2mm)
Finish	As Sprayed	130 μ -in Ra
	Ground	Less than 10 μ -in Ra
Bond Strength		10,000 psi (epoxy failure at 0.015" thickness)
Hardness -	Superficial	92.0 R _{15N}
	Macro	68 R _C
	Micro	1400 DPH ₃₀₀
Microstructure -	Porosity	Less than 1%
	Oxides	Less than 2%



TFAFA 1350VM 86WC-10Co-4Cr Coating Magnification: 200 X
 Sprayed at 15 lb/hr Etchant: None (as sprayed)

The information provided herein is believed to be accurate and reliable; however, results may vary with workpiece preparation and operator technique. TFAFA 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.

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

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