

Bulletin



Praxair Surface Technologies
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Praxair Surface Technologies
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File: 1.9.2.2CH-1342VM
Issue: 010516
Supersedes: M10522

COATING PROPERTIES

TAFE 1342VM TUNGSTEN CARBIDE - 12% COBALT

Spray Conditions:

Excellent coatings of TAFE 1342VM 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-1342VM.

Spray Rate

	<u>10 lb/hr (4.5 kg/hr)</u>	<u>20 lb/hr (9.07 kg/hr)</u>
Coverage	60 ft ² /hr/0.001" (0.14 m ² /hr/mm)	108 ft ² /hr/0.001" (0.26 m ² /hr/mm)
Powder Required	0.17 lb/ft ² x 0.001" (32.4 kg/m ² x mm)	0.19 lb/ft ² x 0.001" (36.3 kg/m ² x mm)

Finishing Procedures:

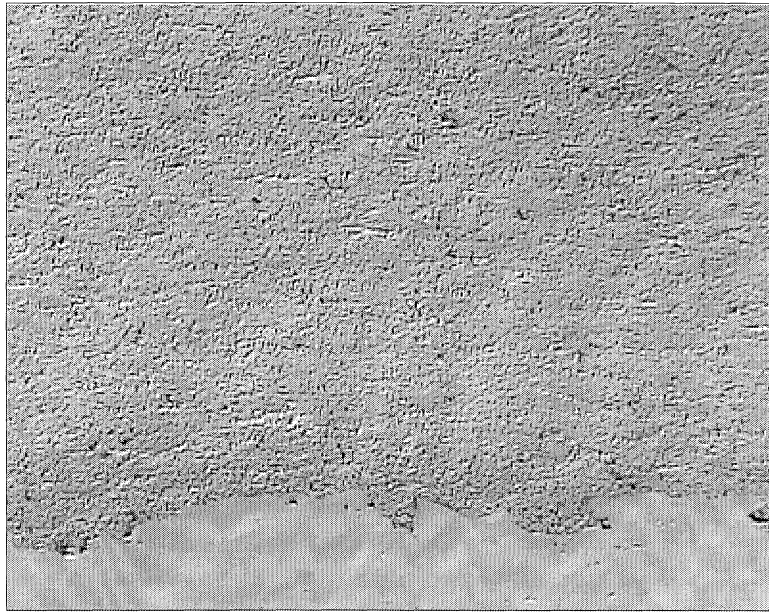
Use good quality, precision grinding equipment with coolant.

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 Ground	130 μ -in Ra Less than 10 μ -in Ra
Bond Strength		10,000 psi (Epoxy failure at 0.015" thickness)
Hardness -	Superficial Macro Micro	92.5 R _{15N} 66 R _C 1400 DPH ₃₀₀
Microstructure -	Porosity Oxides	Less than 1% Less than 2%



TFAFA 1342VM WC - 12 Co
Sprayed at 15 lb/hr

Coating Magnification: 200X
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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