

Bulletin

Praxair Surface Technologies
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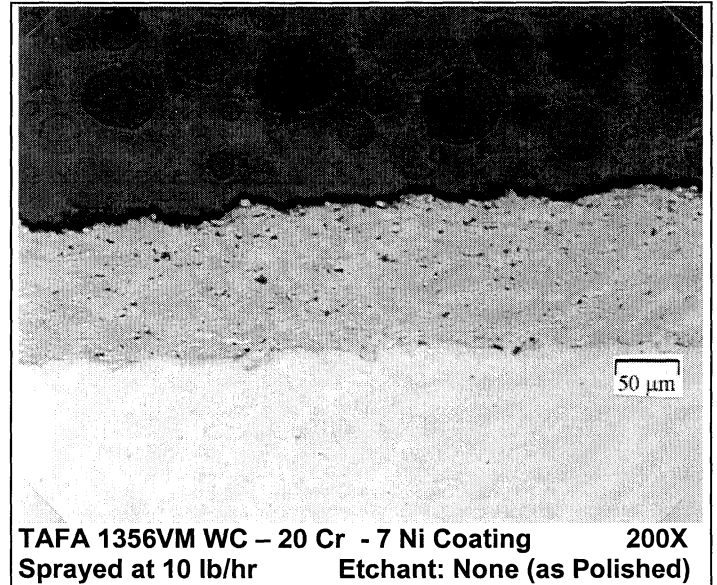
Coating Properties

TAFE 1356VM Tungsten Carbide – 20 Chromium – 7 Nickel

Spray Conditions

Excellent coatings of TAFE 1356VM can be obtained at spray rates of 2 to over 15 lb/hr (1 – 7 kg/hr) with the JP-5000. For typical starting conditions see bulletin 1.9.2.2SH-1356VM.

	<u>Spray Rate</u>
	10 lb/hr (4.5 kg/hr)
Coverage	41.9 ft ² /hr - 0.001" (0.10 m ² /hr - mm)
Powder Required	0.240 lb/ ft ² x 0.001" (46.60 kg/ m ² x mm)



Coatings (typical):

Thickness (maximum)	Over 0.050" (2mm)
Finish	As Sprayed Ground
	170 μ-in Ra Less than 10 μ-in Ra
Bond Strength	10,000 psi (Epoxy failure at 0.015" thickness)
Hardness -	Superficial Macro Micro
	93 R _{15N} 65 - 68 R _C 1100 - 1350 DPH ₃₀₀
Microstructure -	Porosity Oxides
	Less than 1% Less than 2%
Coating Density	14.43 g/cm ³ *

* Calculated Value

Suggested Finishing Procedures:

Rough Grinding

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

Finish Grinding

Diamond Wheel:	380 – 400 grit
Wheel Speed:	5200 sfpm
Part Speed:	25 – 75 rpm
Infeed:	0.0002" (0.005 mm) (not to exceed)
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: